



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

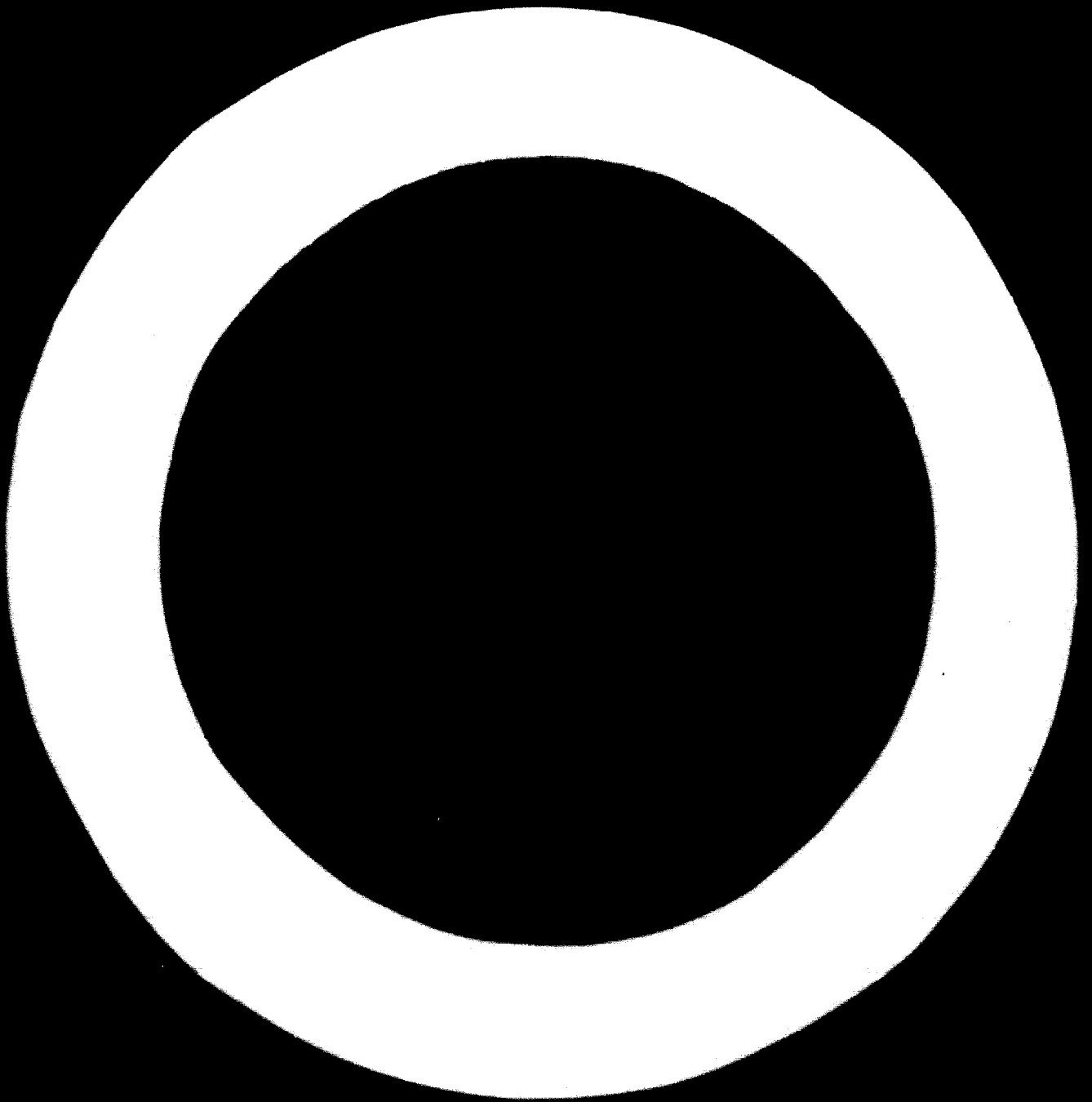


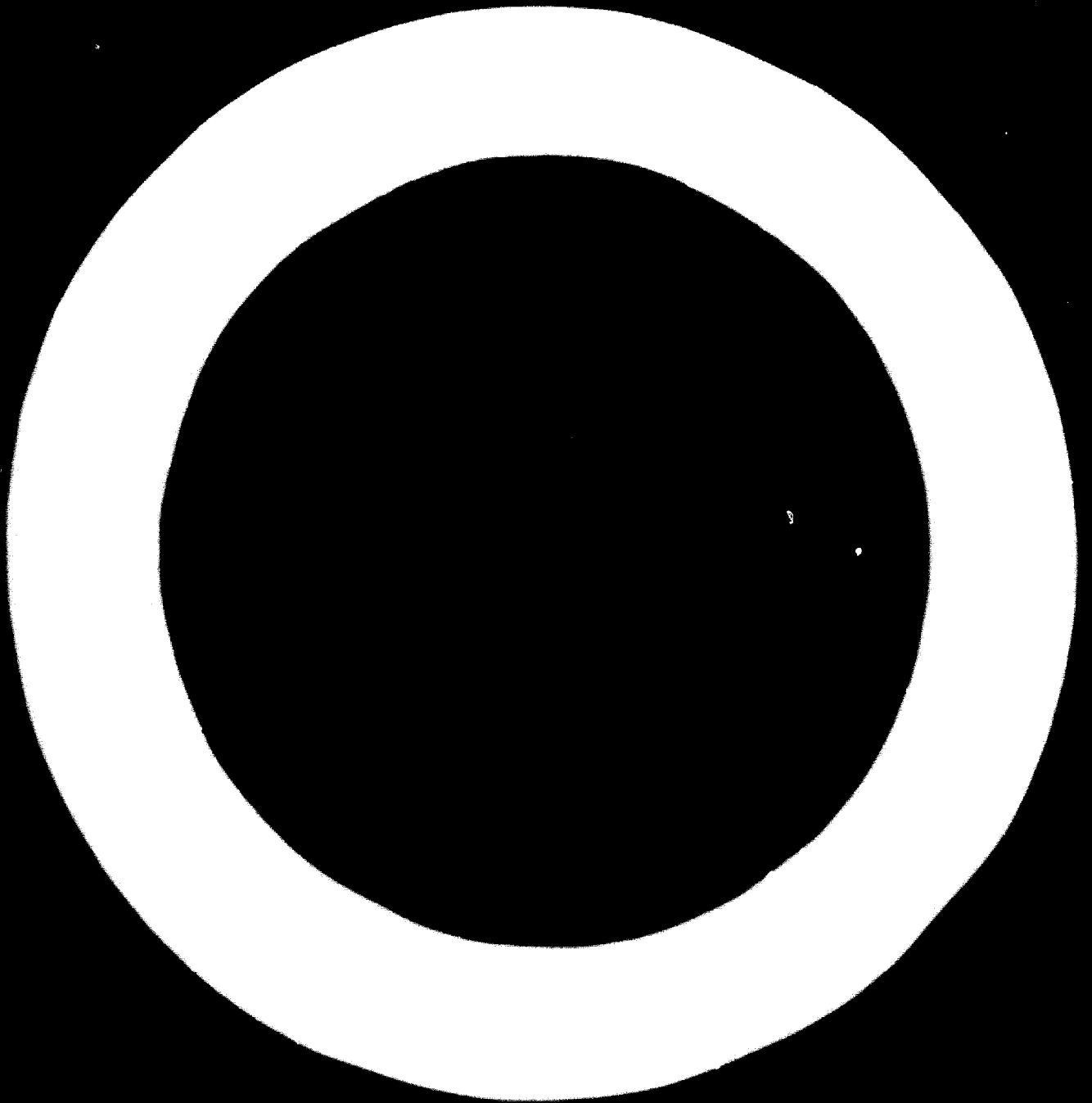
04997

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

**SUMMARIES
OF
INDUSTRIAL
DEVELOPMENT
PLANS**

VOLUME III







UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
VIENNA

**SUMMARIES OF
INDUSTRIAL DEVELOPMENT
PLANS**

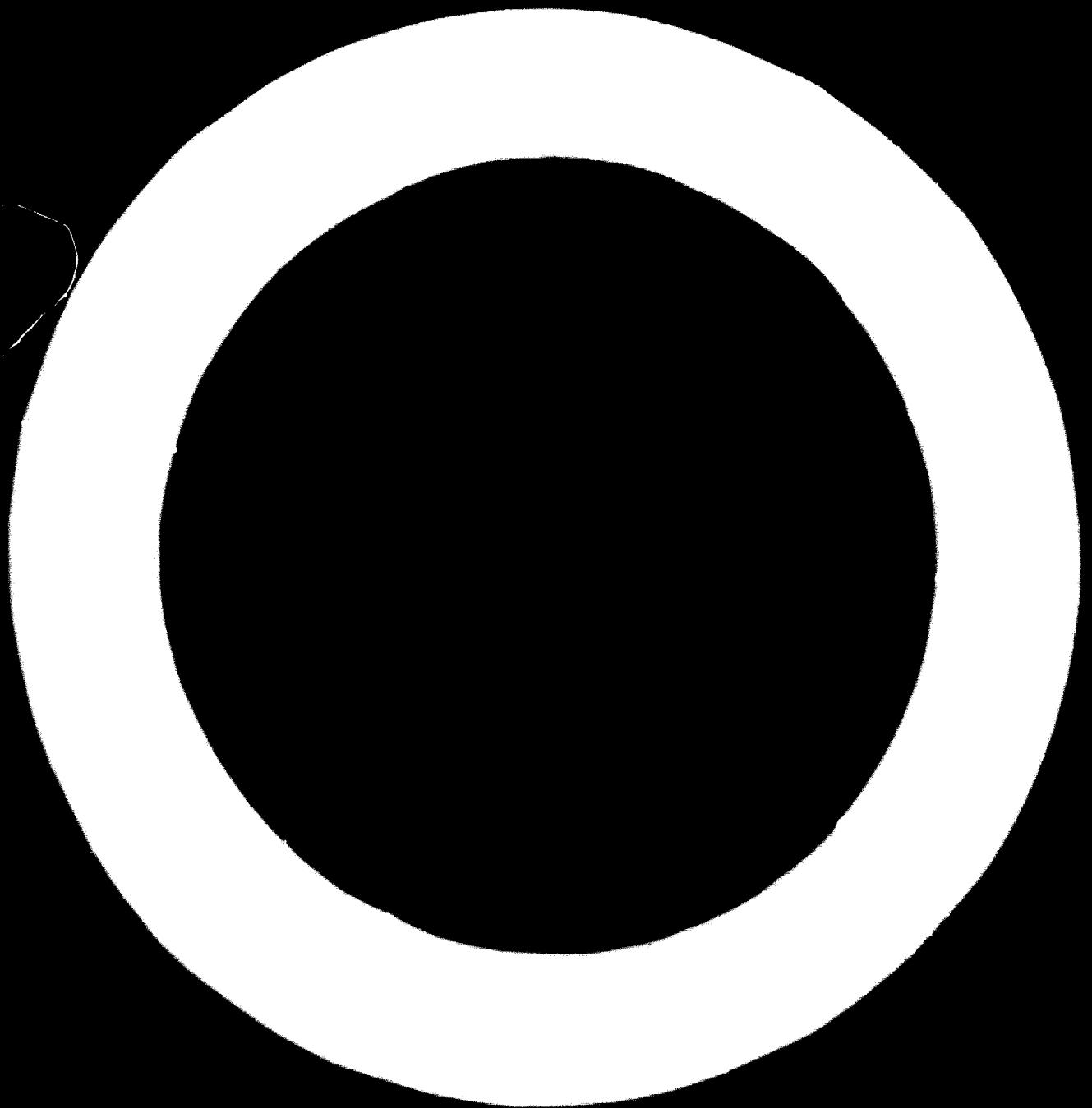
VOLUME III

ID/109
June 1973

PREFACE

The purpose of the summaries contained in this volume, as in the previous volumes of this series, is to provide readily usable information on the industrial development features included in the economic development plans of several countries. The plans in this volume cover part of the Second United Nations Development Decade and give a systematic presentation of data on industry, which will be of particular use to national planners in developing countries. In an economic development plan, items bearing directly or indirectly on the industrial sector are found under several chapters, which are often dispersed in more than one volume; such information is included in terms of the national currency and language; the summaries presented here, however, are in a single currency and language to permit easy comparison and assimilation. The reader's attention is drawn to the comparative tables at the beginning of this volume.

This document has been reproduced without formal editing.



CONTENTS

	<u>Page</u>
INTRODUCTION	
COMPARATIVE TABLES	
- Index to the areas covered in the plan summaries of eleven countries	2
- Selected objectives and strategy found in country plans	3
- Approximate manufacturing GDP per capita at the beginning and at the end of the plan period	5
- Number of planned manufacturing projects by industrial product	7
- Investment allocation in industry	13
- Planned manufactured exports	14
- Planned manufactured imports	15
- Average annual rates of growth between 1970 and 1975	16
- Export figures for the last years of the development plans	17
<u>Antigua:</u> 1970-1975	
I. General background information	21
II. Summary of the industrial development plan	42
<u>Iraq:</u> 1970-1974	
I. General background information	63
II. Summary of the industrial development plan	74
<u>Lebanon:</u> 1970-1975	
I. General background information	89
II. Summary of the industrial development plan	102
<u>Mauritius:</u> 1971-1975	
I. General background information	129
II. Summary of the industrial development plan	149
<u>Nepal:</u> 1970-1975	
I. General background information	173
II. Summary of the industrial development plan	182

CONTENTS (continued)

	<u>Page</u>
<u>Nigeria:</u> 1970-1974	
I. General background information	205
II. Summary of the industrial development plan	225
<u>Saudi Arabia:</u> 1970-1975	
I. General background information	257
II. Summary of the industrial development plan	289
<u>Sudan:</u> 1970-1975	
I. General background information	321
II. Summary of the industrial development plan	336
<u>Swaziland:</u> 1969-1974	
I. General background information	365
II. Summary of the industrial development plan	382
<u>Togo:</u> 1971-1975	
I. General background information	395
II. Summary of the industrial development plan	412
<u>Zambia:</u> 1972-1976	
I. General background information	435
II. Summary of the industrial development plan	456
<u>Poland:</u> 1971-1975	
I. General background information	482
II. Summary of the industrial development plan	490

INTRODUCTION

The first volume in this series (UNIDO/IPPD/11), issued in April 1970, contained 30 summaries of industrial development plans; the second volume (UNIDO/IPPD/54), issued in November 1971, contained 7 summaries; the present volume contains 12 summaries.

The contents of each summary

Each summary is self-contained and consists of approximately 50 pages, divided into two main sections, which are preceded by a short bibliography. The exchange rates used to convert the local currency in the source plans into United States dollars in the summaries are indicated in section I-1 of each summary. The coverage and completeness of the summaries vary widely, owing to a similar variation in the original plans from which they were prepared.

It should be noted that in some of the summaries, gross domestic product (GDP) figures are at factor cost while in others they are at market prices. In many cases, however, the source plans did not specify which of these bases of calculation was used. For this reason, the basis used for the calculation of the GDP is not shown in the summaries.

The summaries for most of the countries show planned growth in terms of manufacturing GDP. In several summaries, however, growth is shown in terms of industrial GDP, inasmuch as the country's plan did not show manufacturing separately. In these cases, industrial GDP usually includes mining and quarrying, water, gas and electricity, in addition to manufacturing. The data for both the beginning year and the ending year of most of the plans are, naturally, estimates. This explains the sometimes considerable difference in a country's actual reported GDP and the GDP it used in its plan.

A major obstacle in the preparation of this series continues to be the non-availability of plans at UNIDO; nevertheless, it was possible to summarize the plans of Botswana, Iraq, Lesotho, Mauritius, Nepal, Nigeria, Saudi Arabia, Sudan, Swaziland, Togo, Zambia and Poland. Unfortunately, it has not been possible to include the summary of the plan of Bulgaria in this volume, as announced in volume II.

Part I, "General Background Information" was compiled from all sources of information available at UNIDO, whereas part II, "Summary of the Industrial Development Plan", is based solely on the published economic development plan of the respective country.

Sub divisions within these sections are as follows:

I. **GENERAL BACKGROUND INFORMATION** (compiled from all sources of information available at UNIDO)

1. Basic statistics
2. Population
3. GDP
4. Macro-economic indicators
5. Industrial products and technology - main manufacturing industries
6. Industry - related resources and sectors
7. Overall economic development strategy and policy
8. Regional co-operation
9. Systems for planning and plan implementation
10. Problems encountered through the previous plan period

II. **SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN** (compiled solely from the published economic development plan)

1. General goals and objectives
 - (i) Planned growth
 - (ii) Other objectives
2. Strategy and policy
 - (i) General
 - (ii) Manpower and productivity
 - (iii) Investment and capacity utilization
 - (iv) Interconnections between growth factors
3. Data bases and projections
4. Planned growth of industrial sector
 - (i) Planned growth of manufacturing sector
 - (ii) Planned growth of electricity
 - (iii) Planned growth of mining
 - (iv) Priority of sectors
 - (v) Infrastructure connected with industry
 - (vi) Relationships with non-industry sectors of the economy
5. Planned industrial projects
6. Organisational and institutional changes required for industrial plan implementation
7. Problem areas particular to the industrial sector

How to use the summaries

National planners

The ways in which an industrial planner may use the plan summaries are, inter alia:

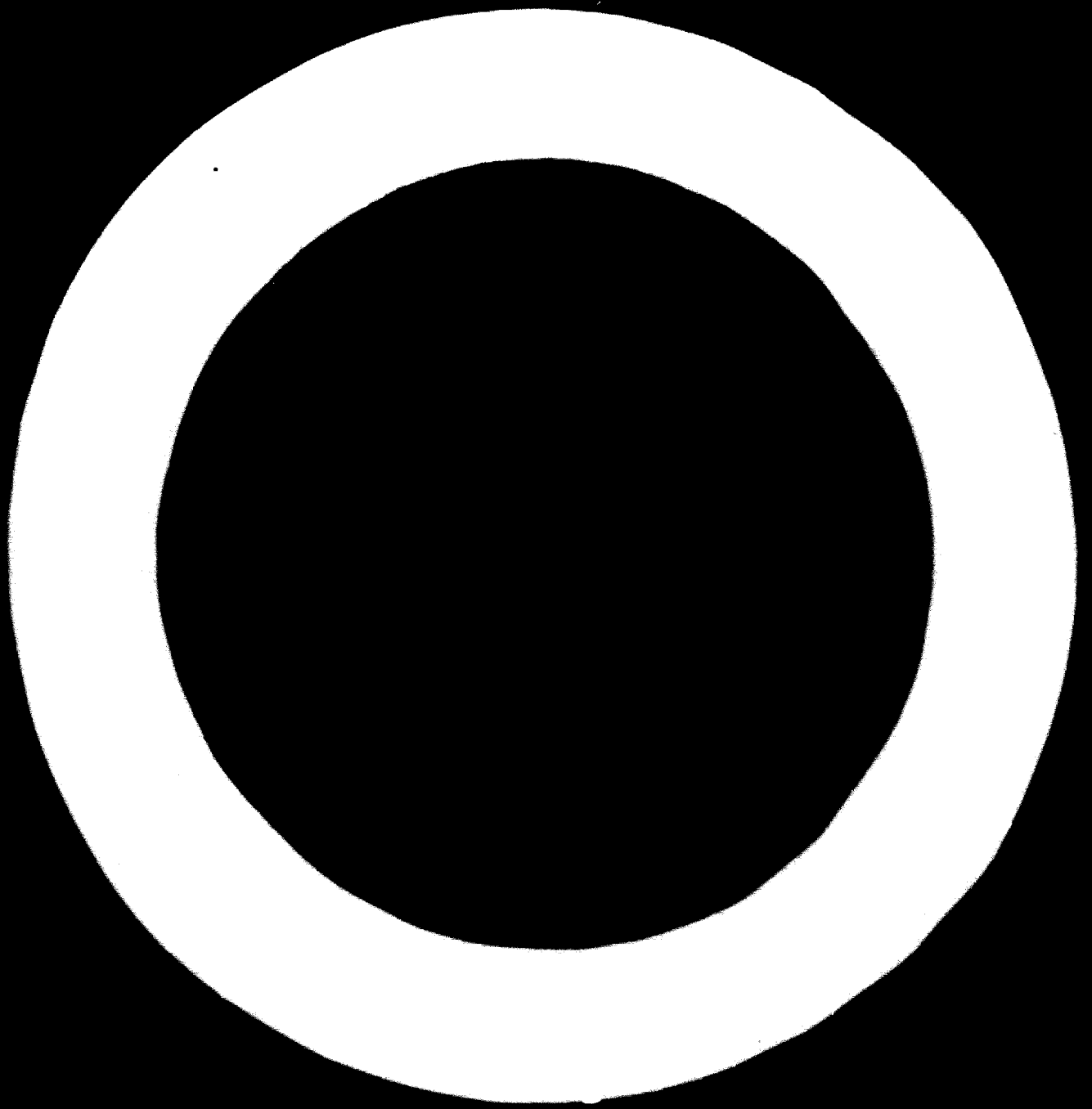
- As a reminder of the various planning areas that may be covered in a country's industrial plan and as an illustration of the detail that may be contained in each planning area;
- As an indicator of various strategies used in approaching industrial development;
- As a source of information of the relationships between industry and other sectors of the economy;
- As a source of general information on the capital investment per annual unit of output envisioned by other countries, for new industrial plants of various types and sizes;
- As a reminder of possible problem areas in planning and plan implementation.

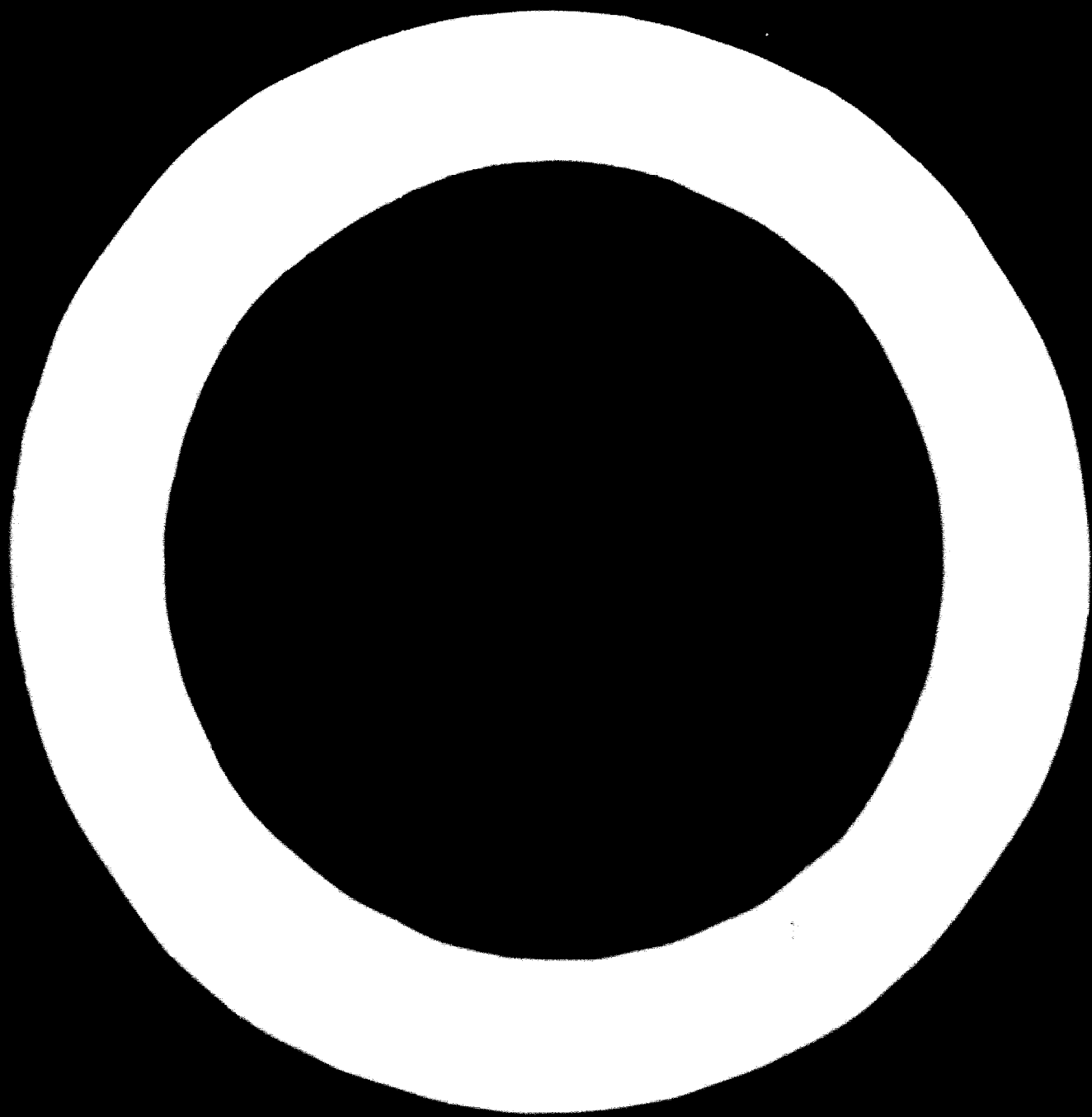
Technical assistance: UNDP country programming, regional co-operation

These expanded summaries will be of invaluable use to technical assistance experts as background information on a country's industrial situation and on its plans for the next four to five years. They will play a key role as part of the material required in the preparation of technical assistance programmes, particularly within the framework of UNDP country programming.

UNIDO has been receiving requests from the secretariats of regional organizations in Africa, Latin America and other parts of the world to grant assistance in the preparation of comparative analyses based on the summaries of the industrial development plans of member countries. The main objective is to permit improved strategy and policy formulation and co-ordination.

Volume IV of this series is expected to include the summaries to the industrial development plans of some 10 countries; priority will continue to be given to the least developed countries and to the needs in connexion with UNDP country programming and with the Second United Nations Development Decade.





COMPARATIVE TABLES

Index to the Areas Covered in the Plan Summaries of Eleven Countries

<u>Planning areas</u>	Botswana	Iraq	Lesotho	Mauritius	Nepal	Nigeria	Saudi Arabia	Sudan	Swaziland	Togo	Zambia	Totals
												+ * o
1. General goals and objectives												
(i) Planned growth	*	+	o	*	*	+	+	+	o	*	+	5 4 2
(ii) Other objectives	o	*	*	*	*	*	*	*	*	*	*	- 10 1
2. Strategy and policy												
(i) General	*	*	*	+	*	o	*	*	*	*	*	1 9 1
(ii) Manpower and productivity	+	+	+	+	*	+	+	+	+	+	+	10 1 -
(iii) Investment and capacity utilization	+	+	*	+	+	+	+	*	*	+	+	8 3 -
(iv) Interconnections between growth factors	*	*	o	*	*	+	o	*	o	*	*	1 7 3
3. Data bases and projections	*	o	o	*	*	*	+	o	o	*	o	1 5 5
4. Planned growth of industrial sector												
(i) Planned growth of manufacturing sector	o	*	*	*	*	*	*	+	o	*	+	2 7 2
(ii) Planned growth of electricity	*	o	*	*	*	*	*	*	*	*	+	1 9 1
(iii) Planned growth of mining	*	o	*	*	*	+	+	*	*	*	*	2 8 1
(iv) Priority of sectors	*	*	*	*	*	+	*	o	*	+	*	2 8 1
(v) Infrastructure connected with industry	*	*	*	*	+	*	*	*	*	*	*	1 10 -
(vi) Relationships with non-industry sectors of the economy	o	*	+	*	*	*	*	+	*	o	*	2 7 2
5. Planned industrial projects	o	*	*	*	*	+	+	+	o	+	+	5 4 2
6. Organizational and institutional changes required for industrial plan implementation	*	*	+	+	*	*	+	*	o	*	+	4 6 1
7. Problem areas particular to the industrial sector	*	*	*	*	*	*	*	*	*	*	*	- 11 -

Key: + Strong emphasis of the planning area.
 * General coverage of the planning area.
 o Little or no apparent coverage of the planning area.

The key symbols (*+o) are meant for use only as a guide or index to the plan summaries. In this connection, it should be noted that a country with an "o" entry for a particular plan summary heading or sub-heading may actually have very good planning in that area; the "o" simply means that it was not found in the published version of the country's plan or that it was inadvertently included under another heading or sub-heading in the summary.

Selected Objectives and Strategy Found in Country Plans (continued)

The country's plan mentions or emphasizes		Number of countries mentioning or <u>emphasizing</u>
14. Vertical or horizontal integration within manufacturing sectors	Botswana	-
15. Increasing the manufacturing % of GDP (by 5% or more)	Iraq	2
	Lesotho	
	Mauritius	
	Nepal	
	Nigeria	
	Saudi Arabia	
	Sudan	
	Swaziland	
	Togo	
	Zambia	

Approximate Manufacturing GDP per Capita 1967-1968, 1968-1969, 1969 and 1970
(at market prices)

Country	GDP at market prices (billions of national currency)	Exchange rate national currency per \$ U.S.	GDP at market prices (million \$ U.S.)	Population (000)	GDP/capita (\$ U.S.)	Manufacturing	Manufacturing GDP/capita (\$ U.S.)
Botswana (1967-1968)	39.7 million	0.714	55.6 ¹⁾	600	92.6 ¹⁾	9.0%	8.3 ¹⁾
Iraq (1969)	1,038.9 million	0.357	2,910.0	9,205	316.1	9.1%	28.7
Lesotho (1967-1968)	55.5 million	0.714	77.8	1,018	76.4	0.7%	5.3
Mauritius (1969)	1,323.3 million	5.560	23.8 ¹⁾	800	191.2 ¹⁾	16.0%	29.7 ¹⁾
Nepal (1970)	6,563.0 million	10.125	648.2	11,057	58.6	n.a.	n.a.
Nigeria (1967-1968)	1,525.5 million	0.357	4,273.0	61,459	69.5	7.6%	5.3
Saudi Arabia (1968-1969)	15,810.3 million	4.500	3,513.4	7,117	493.7	1.9%	9.3 ²⁾
Sudan (1969-1970)	563.8 million	0.348	1,620.0	15,500	104.5	9.0%	9.5 ³⁾
Swaziland (1966-1967)	52.8 million	0.720	73.4	387 ⁴⁾	183.4	9.0%	16.4
Togo (1970)	73.9 billion	277.710	266.0	2,006	132.5	18.8%	24.3
Zambia (1969)	990.0 million	0.714	1,386.4	4,099 ⁴⁾	338.2	7.4%	25.1

1/ At factor cost.

2/ Petroleum refining not included.

3/ Industrial GDP/capita.

4/ African population only.

Approximate Manufacturing GDP per Capita: 1974, 1975 and 1976
(at market prices)

Country	GDP at market prices		Population (000)	GDP/capita (\$ U.S.)	Manufacturing	Manufacturing GDP/capita (\$ U.S.)
	(million \$ U.S.)	(000)				
Botswana (1975)	140.1*	752	186.0	n.a.	n.a.	n.a.
Iraq (1974)	3,934.3	10,800	364.3**	11.4%	41.6	
Lesotho (1975)	n.a.	n.a.	n.a.	n.a.	n.a.	
Mauritius (1975)	227.0	895	254.0	19.0%	47.9	
Nepal (1975)	788.7	12,156	64.9	n.a.	n.a.	
Nigeria (1974)	6,387.3	71,208	89.7	12.7%	11.4	
Saudi Arabia (1975)	n.a.	8,280	n.a.	n.a.	15.1***	
Sudan (1975)	2,392.4	17,500	136.7	9.6%***	13.2	
Swaziland (1974)	n.a.	495	n.a.	n.a.	n.a.	
Togo (1975)	384.3	2,287	168.0	20.7%***	34.9***	
Zambia (1976)	2,134.9	4,999	427.0	13.0%	55.6	

* / At constant prices.

** / At factor cost.

*** / Industrial GDP.

Number of Planned Manufacturing Projects by Industrial Product

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1975	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
<u>Manufacture of food, beverages and tobacco</u>											
<u>Food manufacturing</u>											
Meat processing			n.a.		1		1				
Dairy products							1	1		n.a.	n.a.
Ice-cream, yoghurt and other dairy products											1
Vegetable and fruit canning							1				
Tomato processing					1		1	2		n.a.	
Fish processing							1				
Palm kernel oil							1				
Castor oil										n.a.	
Ground-nut oil								1			
Cocoa butter								n.a.			
Cocoa oil cakes								n.a.			
Coffee								n.a.			
Flour				n.a.	1						
Rice milling					1					n.a.	4 and 6*
Bakery					1		1				20
Biscuits and crackers											20
Sugar					1	2	1			n.a.	1
Date syrup							1				
Macaroni and vermicelli							1				
Animal feed				1*	1		1				
Starch and glucose							1				3
Vegetable ghee								1			
Coco rasping					1		1				
Rum										n.a.	
Vinegar				n.a.							
Various food products				n.a.							

* / Expansion of existing plants.

Number of Planned Manufacturing Projects by Industrial Product (continued)

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1975	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
<u>Beverage manufacturing</u>											
Beer					1						1
<u>Tobacco manufactures</u>											
Tobacco					1						
Cigarettes					1						
<u>Textile, wearing-apparel and leather industries</u>											
<u>Manufacture of textiles</u>											
Cotton ginning								3			
Spinning and weaving								1			
Cotton textiles		1			1		1				1*
Fine textiles		1									
Canvas cloth							1				
Surgical cotton							1				
Jute					1		1				
Wool							1				
Fish nets			n.a.								
			n.a.								
<u>Manufacture of wearing- apparel</u>											
Ready-made cloth								2			
Knit-wear								n.a.			
Garments**											
<u>Manufacture of leather and leather products except footwear and wearing-apparel</u>											
Skin-pickling plant							1				
Leather and leather products					n.a.	1					
								3			
<u>Manufacture of footwear</u>											
Shoes								1			

*/ Expansion of existing plant.

**/ including textiles.

Number of Planned Manufacturing Projects by Industrial Product (continued)

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1975	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
<u>Manufacture of wood and wood products including furniture</u>											
<u>Manufacture of wood and wood products</u>											
Saw mill					1						
Plywood					1						2
Wooden furniture						1	1*	1		n.a.	
<u>Manufacture of furniture and fixtures</u>											
Door and window manufacturing							1*				
<u>Manufacture of paper and paper products, printing and publishing</u>											
Pulp and paper				n.a.	1	1	1		1		
Straw-board					1						
<u>Manufacture of chemicals, petroleum, coal, rubber and plastic products</u>											
Chemical complex (caustic soda, polyvinyl chloride and polyethylene)						1					
Single superphosphate						1					
Insecticides and disinfecting products						1					
Pesticides										n.a.	
Sulphuric acid				n.a.							
Fertiliser mixing	1							1			1*
											n.a.

* Expansion of existing plant.

Number of Planned Manufacturing Projects by Industrial Product (continued)

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1975	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
Nitrogenous fertilisers											
Phosphated fertilisers											
Paints					1		1			N.A.	
Resins and turpentine					1					N.A.	
Pharmaceuticals		1					1				
Detergents							1 ^a			N.A.	
Soap					1					N.A.	
Matches										N.A.	
Glue										N.A.	
Artificial silk		1								N.A.	
Rayon		1								N.A.	
Tyre retreading											
Various rubber products							2			N.A.	
Various chemicals						N.A.					
Petroleum refinery				N.A.							1
<u>Manufacture of non-metallic mineral products, except products of petroleum and coal</u>											
Glass					1						
Glass bottles							1				
Window glass						N.A.					
Glass containers											
Cement											1
Concrete		N.A.	N.A.		1		1 ^a		1		
Ready-mixed concrete							1				
Asbestos-cement pipes							1				
Asbestos-cement sheets				N.A.				1			
Bricks				N.A.	1						
Various construction materials				N.A.				1			1

^{a/} Expansion of existing plant.

Number of Planned Manufacturing Projects by Industrial Product (continued)

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1975	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
<u>Basic metal industries</u>											
Foundry											
Iron and steel mill							1				
Aluminium extrusion					1	1					
Steel bars						1					
Wire mesh							1				
Nails							1				
Iron pipes					1					N.S.	
<u>Manufacture of fabricated metal products, machinery and equipment</u>											
Enamel ware											
Metal furniture							1			N.S.	
Metal window frames							10			N.S.	
Gas-stoves										N.S.	
Metal tins and containers							1				
Air-conditioners, refrigerators and refrigerator cases				N.S.							
Fans							1			1 ^{ee}	
Insulated wire							1				
Dry cell batteries							1				
Boats							1				
Wood-stake truck bodies							1				
Bicycles							1				
Motor cycles							1			N.S.	
Automobile batteries										N.S.	
Electric light bulbs							1				
Bus bodies							1				
Passenger car assembly						1					1

^{e/} Expansion of existing plant.

^{ee/} Refrigerators and other electric household appliances.

Number of Planned Manufacturing Projects by Industrial Product (continued)

	Botswana	1970-1975	Iraq	1970-1974	Lesotho	1970-1975	Mauritius	1971-1975	Nepal	1970-1975	Nigeria	1970-1974	Saudi Arabia	1970-1975	Sudan	1970-1975	Swaziland	1969-1974	Togo	1971-1975	Zambia	1972-1976	
Exhaust-pipes, radiators																							
Radio transistors																							
Galvanised iron buckets																							
Agricultural implements																							
<u>Other manufacturing industries</u>																							
Fish-hooks																							

n.a. n.a.

n.a.

n.a.
n.a.

n.a.

Investment Allocation in Industry

	Total investment in industrial sector (million \$ U.S.)	As a % of total investment in all sectors	Investment for industrial projects (million \$ U.S.)	As a % of total investment in industrial sector
Botswana	n.a.	n.a.	n.a.	n.a.
Iraq	595.3	19	369.6	62
Lesotho	4.2	n.a.	1.6	38
Mauritius	39.8	70	n.a.	n.a.
Nepal	93.0	32	n.a.	n.a.
Nigeria	1,361.7	30	260.3	19
Saudi Arabia	244.1	2	56.4	23
Sudan	144.7	13	146.7	101
Swaziland	3.4	10	n.a.	n.a.
Togo	50.5	18	19.8	39
Zambia	560.0	18	n.a.	n.a.

Planned Manufactured Exports
(million \$ U.S.)

	1970-1975	1970-1974	1970-1975	1971-1975	1970-1975	1970-1974	1970-1975	1970-1974	1969-1974	1971-1975	1972-1976
Botswana	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iraq	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Lesotho	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mauritius	n.a.	n.a.	n.a.	69.5*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nepal	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Saudi Arabia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sudan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Swaziland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Togo	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Zambia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Food	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Drinks	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tobacco	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Textiles	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Shoes and clothing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Wood	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Furniture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Paper and paper products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Printing and publishing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Leather and leather products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Rubber products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Chemical products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Petroleum derivatives	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-metallic minerals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Basic metals	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Metal products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-electric machinery	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Electrical equipment	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Transport material	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	n.a.	n.a.	n.a.	83.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

* / Processed agricultural products including sugar and tea.
 ** / Other manufactured products.

Planned Manufactured Imports
(million \$ U.S.)

	Botswana 1970-1975	Iraq 1970-1974	Lesotho 1970-1975	Mauritius 1971-1975	Nepal 1970-1975	Nigeria 1970-1974	Saudi Arabia 1970-1975	Sudan 1970-1974	Swaziland 1969-1974	Togo 1971-1975	Zambia 1972-1976
Food	n.a.	n.a.	n.a.		n.a.		n.a.	44.8	n.a.	n.a.	n.a.
Drinks	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Tobacco	n.a.	n.a.	n.a.		n.a.		n.a.	4.6	n.a.	n.a.	n.a.
Textiles	n.a.	n.a.	n.a.		n.a.		n.a.	73.2	n.a.	n.a.	n.a.
Shoes and clothing	n.a.	n.a.	n.a.		n.a.		n.a.	11.5	n.a.	n.a.	n.a.
Wood	n.a.	n.a.	n.a.		n.a.		n.a.	11.5	n.a.	n.a.	n.a.
Furniture	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Paper and paper products	n.a.	n.a.	n.a.		n.a.		n.a.	5.7	n.a.	n.a.	n.a.
Printing and publishing	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Leather and leather products	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Rubber products	n.a.	n.a.	n.a.	62.6	n.a.		n.a.	-	n.a.	n.a.	n.a.
Chemical products	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Petroleum derivatives	n.a.	n.a.	n.a.		n.a.		n.a.	7.2	n.a.	n.a.	n.a.
Non-metallic minerals	n.a.	n.a.	n.a.		n.a.		n.a.	49.2	n.a.	n.a.	n.a.
Basic metals	n.a.	n.a.	n.a.		n.a.		n.a.	40.8*	n.a.	n.a.	n.a.
Metal products	n.a.	n.a.	n.a.		n.a.		n.a.	4.9**	n.a.	n.a.	n.a.
Non-electric machinery	n.a.	n.a.	n.a.		n.a.		n.a.	37.9	n.a.	n.a.	n.a.
Electrical equipment	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Transport material	n.a.	n.a.	n.a.		n.a.		n.a.	109.1	n.a.	n.a.	n.a.
Other	n.a.	n.a.	n.a.		n.a.		n.a.	-	n.a.	n.a.	n.a.
Total	n.a.	n.a.	n.a.	62.6	n.a.	1,602.8	n.a.	59.4	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.		n.a.	1,602.8	n.a.	459.8	n.a.	n.a.	n.a.

* Including crude oil and oil products.
** Glass and glassware.

Average Annual Rates of Growth Between 1970-1975

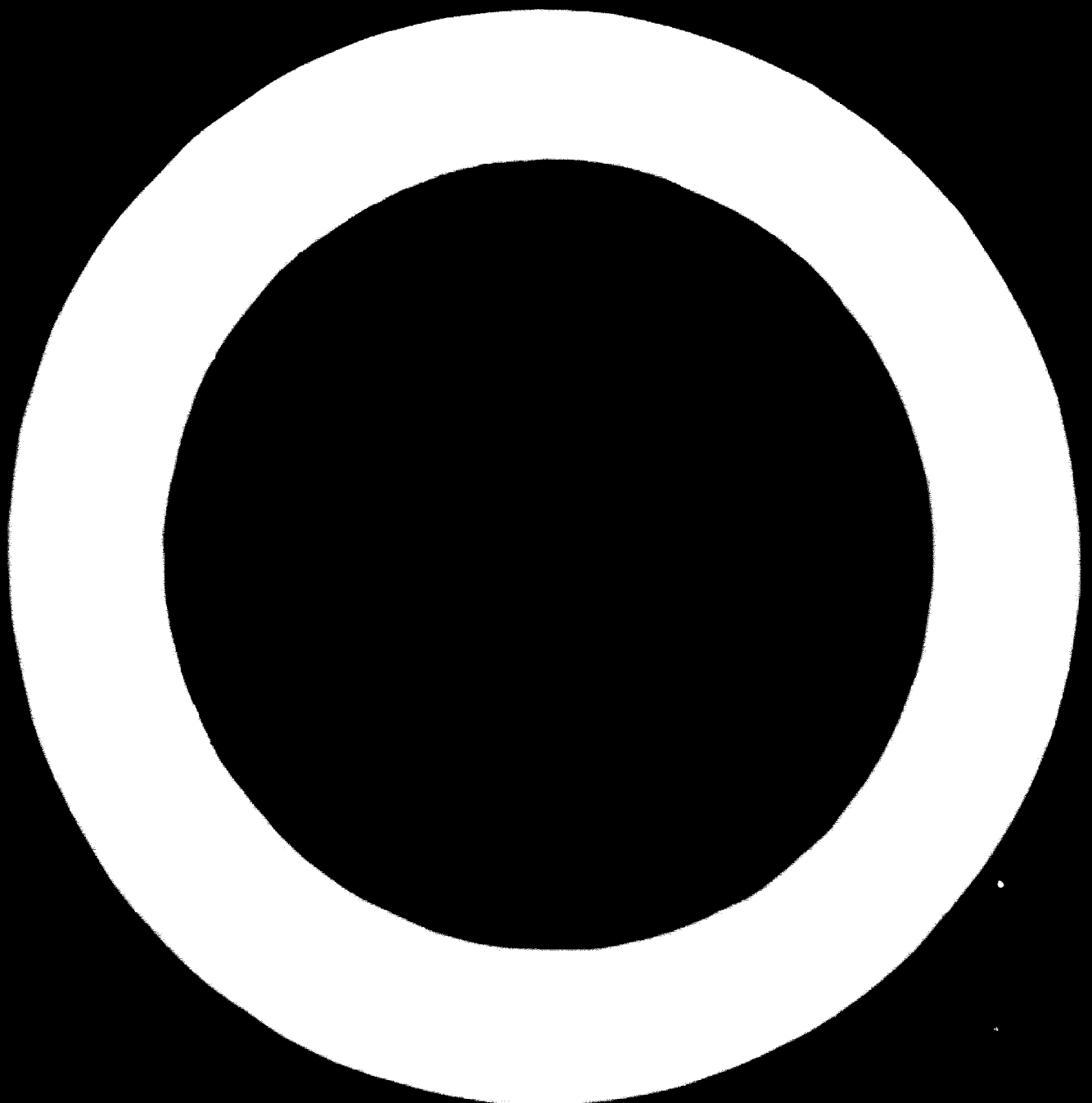
	<u>Rate of growth of GDP</u>	<u>Rate of growth of GDP/capita</u>	<u>Rate of growth of industrial GDP</u>	<u>Rate of growth of industrial GDP/capita</u>
Botswana	15.0%	11.6%	n.a.	n.a.
Iraq	6.2%	2.8% ¹⁾	11.2% ²⁾	7.6% ^{1) and 2)}
Lesotho	5.0% ³⁾	3.0% ³⁾	n.a.	n.a.
Mauritius	6.9%	4.9%	10.3% ²⁾	8.3% ²⁾
Nepal	4.0% ³⁾	1.9% ³⁾	n.a.	n.a.
Nigeria	8.6%	5.9%	23.5%	20.8%
			16.8% ²⁾	14.1% ²⁾
Saudi Arabia	9.8%	7.2%	9.5%	6.6%
			10.9% ²⁾	7.9% ²⁾
Sudan	8.1%	5.5%	9.4%	6.8%
Swasiland	n.a.	n.a.	n.a.	n.a.
Togo	7.6%	4.8%	15.8% ⁴⁾	12.7% ⁴⁾
Zambia	7.5%	4.5%	8.4%	5.3%
			14.7% ²⁾	11.5% ²⁾

-
- 1/ Factor costs.
 - 2/ Manufacturing GDP.
 - 3/ Rough estimates.
 - 4/ Excluding handicraft.

Export Figures for the Last Years of the Development Plans

	<u>Export of manufactured goods (million \$ U.S.)</u>	<u>Manufactured exports as a % of total exports</u>	<u>Rate of growth of exports</u>	<u>Export/Import ratio</u>
Botswana (1975)	n.a.	n.a.	n.a.	n.a.
Iraq (1974)	n.a.	n.a.	2.7%	1.77
Lesotho (1975)	n.a.	n.a.	n.a.	n.a.
Mauritius (1975)	83.7	17.0%	4.1%	0.84
Nepal (1975)	n.a.	n.a.	n.a.	n.a.
Nigeria (1974)	n.a.	n.a.	10.5% 4.1%*	n.a. 0.48*
Saudi Arabia (1975)	n.a.	n.a.	n.a.	n.a.
Sudan (1975)	n.a.	n.a.	11.1%	1.13
Swaziland (1974)	n.a.	n.a.	n.a.	n.a.
Togo (1975)	n.a.	n.a.	n.a.	n.a.
Zambia (1976)	n.a.	n.a.	15.6%	n.a.

*/ Non-oil trade.



SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF
BOTSWANA: 1970 - 1975^{*/}

- I. General background information
- II. Summary of the industrial development plan

^{*/} The National Development Plan, 1970-1975, printed by the Government Printer, Gaborone, September 1970, 228 pp.

BIBLIOGRAPHY

- The National Development Plan, 1970-1975, printed by the Government Printer, Gaborone, September 1970.
- The Stateman's Yearbook, 1970-1971, Bungay, Suffolk, 1970.
- A.I.D. Economic Data Book, Africa, Department of State, Agency for International Development, Washington, D.C., 1970.
- UN: Monthly Bulletin of Statistics, New York, October 1971.
- UN: Statistical Yearbook, 1970.
- UNDP: Annual Reports on Botswana and UNDP Country Information sheet.
- IBRD-IDA: Memorandum on Recent Economic Development and Prospects of Botswana, Report No. AE18, June 1971.
- I.M.F. Staff Papers: The Economy of Botswana by Lamberto Dini, Brian Quinn and Lennar Wohgemuth, Vol.XVIII, No.1, March 1970.
- Annual Economic Review: Botswana, issued by the Economic Department of the Standard Bank, London, November 1971.
- Africa 1971: Reference Volume on the African Continent, prepared by "Jeune Afrique", Special Annual Review: "Botswana: Promising Discoveries", 202 pp.
- Barclays Bank International Ltd.: Botswana: An Economic Survey, London 1971.
- Mitteilungen der Bundesstelle für Aussenhandelsinformation: Weltwirtschaft am Jahreswechsel, Botswana, April 1970 - September 1970.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Botswana:

<u>Area:</u>	Total	
	Land suitable for cultivation	574,000 km ²
	Under cultivation or recent fallow	44,517 km ²
	Potentially irrigable	4,047 km ²
		2,428 km ²

Major cities: (1970)

	<u>Population</u>
Gaborone	14,000
Francistown	18,000
Lobatse	9,000
Serowe	41,000
Kanye	40,000
Malepolole	31,000

Other data: (1969)

Number of vehicles registered	5,681
Government vehicles	1,273
Telephones	3,536
Radio sets	6,033
Power production	15,100,000 kwh

Exchange rates: (1970)

	<u>Unit</u>	<u>Rand equivalent</u>
	US dollar	0.714
	Pound sterling	1.712
	Swiss franc	0.166
	French franc	0.129
	German mark	0.195
	Italian lira (100)	0.114

2. Population:

	<u>1966</u>	<u>1970</u>
Total population	576,000	648,000
Density	1.00/km ²	1.12/km ²
Annual growth rate	3.0%	
Increase since independence in 1966	12.5%	
Population living in East Botswana (% of total population)	80.0%	
Urban population	22.0%	

Distribution of the Population by Sectors 1967-1968^{*/}

Attached to rural sectors	420,000	70.0%
Wage earners and dependants**	118,000	19.6%
Non-identified source of livelihood***	62,000	10.4%
	<u>600,000</u>	<u>100.0%</u>

^{*/} Estimates.

^{**/} Under the assumption that each employed or self-employed person supports three others.

^{***/} Destitutes and persons supported by the remittances of migrant labourers working in South Africa or by workers in the urban sector.

Number of Wage Earners by Branch of Activity 1967-1968

Traditional agriculture	7,671	27.3%
Extractive industries	814	2.9%
Manufacturing	1,550	5.5%
Construction	1,566	5.5%
Electricity and water	187	0.7%
Trade and hotels	5,175	18.4%
Communications	1,474	5.2%
Financial institutions	134	0.5%
Public administration	5,970	21.2%
Services	3,607	12.8%
Total (24,457 men and 3,691 women)	<u>28,148</u>	<u>100.0%</u>

Distribution of the Active Population 1967-1968

Traditional agriculture	200,261
Wage earners in Botswana*	28,148
Workers in South Africa**	50,000
Domestic servants***	1,500
Self-employed persons***	1,250
	<hr/>
	281,159

* / of which 25,345 are citizens of Botswana.

** / Estimates of which 25,955 are recruited for the mines.

*** / Male labour only.

Total population 1967-1968	600,000	100.0%
Effectively active population	281,159	46.8%

Distribution of the Male Labour Force
(aged 15 to 65) in 1968

Potential force	160,000
Wage earners in Botswana	24,457
Workers in South Africa	42,000
Domestic servants	1,500
Total of employees	<hr/>
	67,957
Self-employed persons in the modern sector	1,250
Total (gainfully employed)	<hr/>
	69,207
Remaining balance	<hr/>
	91,793

In 1967-1968 about 10% of the total number of persons employed outside agriculture were expatriates. In the civil service expatriates occupied about 17% of all posts and 70% of all professional, higher technical and administrative posts.

Education:

Population under 15 years of age	42.8%
Population at primary school age (aged 5 to 14) of which:	25.7%
Male	12.5%
Female	13.2%
Literacy rate *	20.0%
Rate of enrolment in school (aged 5 to 19)	35.0%

*/ Literacy rate in Tswana: 25%; literacy rate in English: 15%.

Trends in the Primary Education 1962-1969

	<u>Number of schools</u>	<u>Number of teachers</u>	<u>Number of pupils</u>	<u>Teacher/pupil ratio</u>
1962	235	1,305	46,536	1:36
1964	241	1,364	62,839	1:46
1966	251	1,673	71,546	1:43
1968	257	1,791	78,963	1:44
1969	280	2,037	82,214	1:40
1970	282	2,275	83,002	1:36

In 1969, 10,300 primary school children left school, only 5,600 of them had completed the full seven-year course; of the other pupils only 23% could expect to get a place in a secondary school or find a salaried job. The remainder had to find employment in the rural economy or enlist for mine work. In the past five years the percentage of those in the age group of 15-19, who achieved elementary literacy (i.e. four years of education), increased from 29% to 50%.

Trends in Other Levels of Education

	Number of schools	Number of teachers	Number of pupils
Secondary	10	157	3,049
Teacher training	3	26	500*
Vocational training**	1	n.a.	n.a.
High level	1	n.a.	n.a.
Studying abroad	-	-	144

*/ At Francistown college only. (Special upgrading programme for primary school teachers.)

**/ A major initiative to expand the youth training has been taken through the creation of youth brigades, providing training in farming, handicrafts and technical skills. About 500 young people are undergoing such training.

Higher education:

At present no post-school certificate courses are offered in the country. Students going on for further education either enrol for the four-year course at the university of Botswana, Lesotho and Swasiland (Roma, Lesotho) or for an equivalent course elsewhere. The university of Botswana is currently confined to a small short-course centre. The future form of further education in Botswana has been the subject of two special missions in 1969.

Expenditure on Education

(million \$ U.S.)

	<u>1966</u>	<u>1969</u>	<u>1970*</u>
Current	1.47	1.20	1.54
Capital	0.60	0.36	1.25
	<u>2.07</u>	<u>1.56</u>	<u>2.79</u>

*/ Budget estimates.

3. GDP:

	<u>1966</u>	<u>1967-1968</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$) *	7.07	8.32	8.2%
Total GDP/capita (\$) *	93.85	92.60 **	-0.5%
Population (000) ***	576	600	3.0%
Manufacturing GDP (million \$ U.S.)	4.07	4.99	10.5%
Total GDP (million \$ U.S.) *	54.06	55.56	1.0%
Manufacturing % of total GDP	7.53	9.00	9.1%

* / at factor cost.

** / Decrease in GDP/capita due to negative figures given for mining and quarrying, including prospecting in the classification of the industrial origin of GDP at factor cost (see next table).

*** / Government estimates.

Existing statistics do not permit any precise determination of economic growth rates in recent years. Tentative estimates indicate, however, that there has been a growth in the economy of about 8% per annum at current prices, equivalent to 5% real growth.

GDP Structure
(million \$ U.S.)

	<u>1966</u>	<u>%</u>	<u>1967-1968</u>	<u>%</u>
Agriculture, forestry, hunting and fishing	25.40	47.0	25.66	46.2
Mining and quarrying,* including prospecting	0.06	0.1	-1.51*	-2.7*
Manufacturing	4.07	7.5	5.00	9.0
Construction	2.92	5.4	2.85	5.1
Electricity, gas and water	0.40	0.7	0.43	0.8
Commerce, hotels and restaurants	6.75	12.5	3.45	6.2
Transport, storage and communications	4.16	7.7	3.36	6.0
Banking, insurance and real estate	0.30	0.6	0.83	1.5
Government and other services	6.98	12.9	12.20	22.0
Ownership of dwellings	3.00	5.5	3.27	5.9
	<u>54.04</u>	<u>100.0</u>	<u>55.54</u>	<u>100.0</u>

*/ Wrong classification: prospecting should go under investment cost.

The agricultural sector contributes highly to Botswana's GDP. However, the output of this sector varies greatly from year to year according to the quantity of rainfall. In years of droughts, personal expenditure is partly met in reducing herds.

Investment (Development Expenditure)^{1/}
(million \$ U.S.)

	<u>1967-1968</u>	<u>1968-1969</u>	<u>1969-1970</u>	<u>1970-1971^{2/}</u>
Agriculture, forestry and fisheries ^{3/}	0.55	0.25	0.27	0.57
Livestock	0.17	0.12	0.37	0.54
Water development ^{4/}	0.60	0.38	1.02	1.40
Roads and civil aviation	0.87	0.38	2.30	0.85
Power and telecommunications	0.14	0.63	0.23	1.36
Mineral development	0.11	0.04	0.03	11.46
Surveys ^{5/}	0.10	0.24	0.27	0.65
Administrative buildings	1.49	1.62	1.22	3.80
Education	0.76	0.37	0.26	1.49
Medical services	0.20	0.22	0.17	0.30
Miscellaneous ^{6/}	0.30	0.43	0.70	0.85
Total	<u>5.31</u>	<u>4.68</u>	<u>6.85</u>	<u>23.29^{7/}</u>

^{1/} Development expenditure with some transfers from the Government.

^{2/} Approved estimates.

^{3/} Includes agricultural training.

^{4/} Includes expenditure for droughts and famine relief.

^{5/} Mainly land use and hydrological survey work and mapping.

^{6/} Includes co-operatives, district development, development of wildlife resources and certain non-recurrent items.

^{7/} Without deducting \$1.57 million of anticipated savings on United Kingdom's financed projects.

Private investment is encouraged by the Government, and the Botswana Development Corporation is willing to enter into partnership with private investors or to assist them with credits. Special fiscal reliefs are also offered.

4. Macro-economic indicators:Money supply:

n.a.

Prices:

n.a.

GDP:1966 - \$54.06 million
1967-1968 - \$55.56 millionTotal Value of Exports and Imports

(million \$ U.S.)

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Exports	15.12	12.89	10.50	18.34
Imports	-26.33	31.37	-32.49	-43.13
Trade deficit	-11.21	-18.48	-21.99	-24.79

Recurrent Budget^{*/}

(million \$ U.S.)

	<u>1967-1968</u>	<u>1968-1969</u>	<u>1969-1970</u>	<u>1970-1971</u> ^{**}
Total revenue from internal sources	<u>7.98</u>	<u>9.80</u>	<u>15.12</u>	<u>15.68</u>
Customs, excise and sale duties	2.38	1.96	7.14	6.44
Income tax	1.82	2.66	2.80	3.08
Mining income	-	-	-	-
Other domestic revenue	3.78	5.18	5.18	6.16
Total recurrent expenditure	<u>17.64</u>	<u>17.78</u>	<u>19.60</u>	<u>23.80</u>
Deficit	9.66	7.98	4.48	8.12

*/ Botswana's financial year April to March.

**/ Revised estimates.

Balance of payments: n.a.

5. Industrial products and technology - main manufacturing industries:

Botswana is at an early stage of industrial development. The lack of available resources, the poorly-developed infrastructure and the low income level have contributed to impede investment in industry. Industrial enterprises are few and small except for the important meat processing industry (Botswana Meat Commission).

In January 1970 there were 16 enterprises registered under the Industrial Licensing Act (over nine workers or using 25 HP or more) employing approximately 500 workers. They were all located in the following townships:

in Gaborone:	wooden and steel furniture manufacture goat and game skin processing brewery paint manufacture distillery
in Lobatse:	maize and malt-mill two clothing concerns cap and helmet factory metal engineering factory
in Francistown:	bone-meal factory garment manufacture thriving game, trophy and curio industry.

In addition there were some service industries (panel beating of vehicles, watches and clock repairing), construction firms, bakeries, quarries, mines, mills and the Botswana Meat Commission which are all excluded from the Act.

The most recent statistics indicate that the value added to the national income by the manufacturing sector amounted to \$5 million in 1968 and that 1,550 persons were employed in its frame.

The Botswana Meat Commission was established in early 1966 by the Bechuanaland Protectorate Abattoir Ltd. and its subsidiary, the Export and Canning Company, with a capital investment of about \$6.65 million at the end of 1969. It is one of the

largest beef processing enterprises in Africa, employs between 700 and 1,000 workers, and contributes over one third of the Government's income tax revenues. The abattoir has a capacity of processing up to 1,500 heads daily which is sufficient to enable the handling of a maximum annual through-put of about 200,000 heads; however, this figure has not been reached at present:

1966	132,232 heads
1967	88,533 heads
1968	103,776 heads
1969 *	93,074 heads
1970	127,317 heads

*/ The average weight per carcass became 20% higher than in 1966.

Livestock products are the country's main exports (96.3% in 1966 and 77.9% in 1969). The main exports from the Botswana Meat Commission are chilled carcasses and boneless beef. Since 1968 the corned beef market has been economically unattractive and little has been produced; the canning plant is, however, constantly maintained.

6. Industry - related resources and sectors:

Forestry:

An assessment of the forestry potential of the northern areas was conducted between 1963 and 1966; as a result, a timber concession to cover the exploitation of 7,500,000 cubic feet per annum is being offered. If the concession is taken up, a timber industry providing substantial employment could be maintained.

<u>Main crops:</u>	<u>1967-1968</u>	<u>1968-1969</u>	<u>1969-1970</u>
Acreage planted (ha)	122,655	216,741	109,183
Crop production (tons)			
Sorghum	11,007	29,849	7,818
Maize	7,544	13,644	2,113
Millet	1,349	6,833	1,206

Data based on sample surveys with about 80% coverage of holding.

<u>Planted area:</u>	<u>%</u>
Sorghum	47
Maize	24
Millet	10
Beans and peas	13
Cotton	1

From the available data it is clear that during the last decade the country has moved from a position of virtual self-sufficiency of basic food crops to being an important importer of food-stuffs. It is estimated that during the period of 1962-1968 an annual deficit of approximately 27,210 tons of cereals has occurred.

Livestock:

The livestock and livestock products currently accounted for more than 90% of the country's exports until 1968. It provides the principal source of cash income in the rural and manufacturing sector.

	<u>Cattle</u> (000 heads)	<u>Sheep</u> (000 heads)	<u>Goats</u> (000 heads)
1965	1,097	125	335
1969	1,433	332	862

Off-take of Slaughter and Live Cattle
(Number of heads)

	<u>1966</u>	<u>1968</u>	<u>1970</u>
Beef carcasses			
To South Africa	17,465	51,034	40,013
To African markets	13,813	19,219	15,406
To overseas markets (mainly United Kingdom)	97,287	31,947	70,745
Condemnations	3,667	1,576	1,153
Total slaughter	<u>132,232</u>	<u>103,776</u>	<u>127,317</u>
Live cattle sales			
To Zambia and Southern Rhodesia	16,422	-	882
Total off-take	<u>148,654</u>	<u>103,776</u>	<u>128,199</u>

Source: The Botswana Meat Commission. To these totals about 16,000 heads per annum slaughtered for the local consumption must be added.

Sales of Boneless Beef
(Pounds)

	<u>1964</u>	<u>1965</u>	<u>1970</u>
To the United Kingdom	6,396,044	4,852,733	17,738,209
To South Africa	2,207,597	1,188,543	2,090,113
To other African markets	2,791,535	2,243,689	1,638,390
To other markets	448,211	322,749	1,424,844
Total	<u>11,843,387</u>	<u>8,607,714</u>	<u>22,891,556</u>

Minerals and mining:

The peak mineral production in Botswana took place in 1961 valued at \$862,580 resulting from mining of gold and silver, asbestos fibres and manganese ore. After 1961 there was a gradual decline in the value of mineral exports which continued until 1967. During 1967 the small-scale manganese ore mining was revived and has shown continued growth ever since. From this time on, ownership rights of minerals in tribal lands have been transferred to the State. The previous legislation concerning prospecting and mining rights has been consolidated and amended.

Exports of Minerals

<u>Year</u>	<u>Asbestos</u>		<u>Manganese ore</u>		<u>Semi-precious stones</u>		<u>Diamonds</u>	
	<u>Tons</u>	<u>Value (000 \$ U.S.)</u>	<u>Tons</u>	<u>Value (000 \$ U.S.)</u>	<u>Kilograms</u>	<u>Value (000 \$ U.S.)</u>	<u>Carats</u>	<u>Value (000 \$ U.S.)</u>
1964	2,227	361	16,309	125	-	-	-	-
1965	1,539	259	5,646	45	-	-	-	-
1966	399	98	1,109	14	-	-	-	-
1967	-	-	1,298	26	-	-	-	-
1968	-	-	12,150	301	-	-	-	-
1969	-	-	27,308	511	29,412	5.6	31,453	297

Source: Geological Survey Department.

The value of the mineral production largely consisting of exports of diamonds, manganese ore with minor exports of semi-precious stones and talc exceeded \$828,800 during 1969.

Thirty-five special prospecting licenses for a variety of minerals and for areas of a vastly different size are currently in force in Botswana. This excludes mining leases in force or being negotiated, as well as the activity carried out in privately-owned areas of mineral rights. Other applications are under consideration.

The most important mineral discoveries made in Botswana in recent years were a new kimberlite province (certain pipes carrying diamonds) by the De Beers Prospecting Botswana Ltd. in the Orapa area, copper-nickel deposits in the Selebi-Pikwe and Selkirk-Phoenix areas, copper near Matsitama and considerable coal reserves in East Botswana (Morupule and Mamabula). Reserves of brine, gypsum, fire-clays, ceramic material and lime-stones have also been located in different areas.

Power:

Public power supplies are only available in some of the main townships (Gaborone, Lobatse, Francistown). A part of the needed power is purchased from the Southern Rhodesian railways.

Transport:

Transport facilities in Botswana are scarce, costly to provide and to maintain. Botswana has less vehicles per road mile than any other country listed by the International Road Federation. Apart from the railways, owned and operated by the Rhodesian railways, crossing the eastern part of the country, Botswana has 8,000 km of road, about half of it has to be maintained by the Government. Two main roads cross the country, one from the South to the North, running parallel to the railways and the other from the East to the West, from Francistown to Maun. At present 25 km of road are bituminized. Regular and efficient maintenance have to be carried out on earth and gravel roads to ensure adequate communication. The Government has to invest in road maintenance depots.

Main Exports
(million \$ U.S.)

	<u>1966</u>	<u>1</u>	<u>1967</u>	<u>1</u>	<u>1968</u>	<u>1</u>	<u>1969</u>	<u>1</u>
Livestock and livestock products	14.56	96.3	11.90	92.3	10.08	96.1	14.28	77.9
Minerals	0.14	0.9	-	-	0.28	2.6	0.84	4.6
Other	0.42	2.7	0.98	7.6	0.14	1.3	3.22	17.5
Total	<u>15.12</u>	<u>100.0</u>	<u>12.90</u>	<u>100.0</u>	<u>10.50</u>	<u>100.0</u>	<u>18.34</u>	<u>100.0</u>

Main Imports
(million \$ U.S.)

	<u>1966</u>	<u>1</u>	<u>1967</u>	<u>1</u>	<u>1968</u>	<u>1</u>	<u>1969</u>	<u>1</u>
Food-stuffs and livestock	8.12	30.8	7.84	25.0	8.12	25.1	n.a.	n.a.
Beverages and tobacco	2.24	8.5	2.24	7.1	2.38	7.3	n.a.	n.a.
Chemicals, fuels and lubricants	3.50	13.3	4.62	14.7	5.04	15.6	n.a.	n.a.
Manufactured goods and building materials	9.52	36.2	14.98	47.8	15.54	48.0	n.a.	n.a.
Other	2.94	11.2	1.68	5.3	1.26	3.9	n.a.	n.a.
Total	<u>26.32</u>	<u>100.0</u>	<u>31.36</u>	<u>100.0</u>	<u>32.34</u>	<u>100.0</u>	<u>43.12</u>	<u>100.0</u>

7. Overall economic development strategy and policy:

The major objectives of the Government of Botswana have been:

- to secure the fastest possible rate of economic growth in a manner designed to raise the living standard of the great mass of inhabitants;
- to make the country a financially viable entity in the shortest time possible;
- to establish a more equitable distribution of income among the people by increasing the number of new job opportunities within the country and encouraging the private initiative;
- to implement measures for land conservation, protection of wildlife and water resources;
- to develop natural resources in reforming the traditional land tenure system and developing livestock and mining industries.

8. Regional co-operation:

Botswana's geographical position, entirely land-locked, bounded by Southern Rhodesia, South Africa and Namibia, calls for a policy of maintaining friendly relations with the neighbouring countries and for diversifying her external economic links, particularly with Zambia and other African countries. However, Botswana has recognized that she is an integral part of the southern African region.

Since 1910 Botswana participates in the Southern African Customs Union Agreement with South Africa, Lesotho and Swaziland. The first agreement was substantially revised in 1969 and came into force on 1 March 1970.

As a result of the Customs Union, goods move freely between the countries, but until recently no precise records of the movements of goods have been kept. The new agreement foresees that South Africa compensates Botswana for the revenue collected on her behalf according to a formula mainly based on the size of Botswana's imports. The total income of Botswana from the

common revenue pool will be equivalent to about 20% of the country's imports valued at her borders regardless of their origin; the income will be paid to Botswana with a time lag of two years.

The fixing of tariffs remains the prerogative of South Africa, but consultations are obligatory in some circumstances. Any industry of Botswana capable of supplying a substantial part of the total South African market may apply for protection in the whole customs union area with the same norms as applied to industries in South Africa.

Botswana also has a customs agreement with Southern Rhodesia. A high proportion of the goods circulating between the two countries are of South African manufacture, which are able to compete effectively with overseas manufacturers in the protected South African market.

Botswana participates in a joint monetary system with South Africa, the Rand being the legal tender in the country. This arrangement eliminates any international payment disequilibria in the conventional sense; it avoids the cost and problems of administering the monetary system and assures the country of a stable and internationally recognized currency. However, it has the disadvantage of making Botswana subject to monetary and credit policies over which she has little or no control. Botswana is not represented in the Board of the Reserve Bank of South Africa and has no way of influencing the South African monetary policy, if it affects her economy adversely.

9. Systems for planning and plan implementation:

The Ministry of Finance and Development Planning is responsible for the preparation of the national plan. The Ministry has two divisions: the Division of Financial Affairs (financial administration) and the Division of Economic Affairs (planning and advice). The Ministry is also responsible for

the negotiation of external aid and for the National Development Bank and the Botswana Development Corporation. The Central Statistics Office is located within the Ministry. In addition, the Ministry is the co-ordinating authority for the two major interdepartmental development projects: the Shashe Complex and the Surveys and Training for the Development of Water Resources and Agricultural Production.

The Natural Resources Co-ordinating Committee has been established to assist in planning the use of natural resources; it works together with the Ministries concerned with the use of natural resources and is assisted by a Natural Resources Working Committee.

Consultations with the private sector are taking place through meetings of the National Economic Advisory Council and through contacts with the following specialized bodies:

- Livestock Industry Advisory Committee;
- Education Advisory Committee;
- Technical Training Advisory Committee;
- Town and Country Planning Board;
- Medical Advisory Board.

The Botswana Development Corporation Ltd.:

To compensate the lack of entrepreneurial initiative, the Government has established the Botswana Development Corporation (BCD) whose function is to identify business opportunities in industry, commerce and agriculture, to undertake the related detailed feasibility studies and interest potential investors in specific projects.

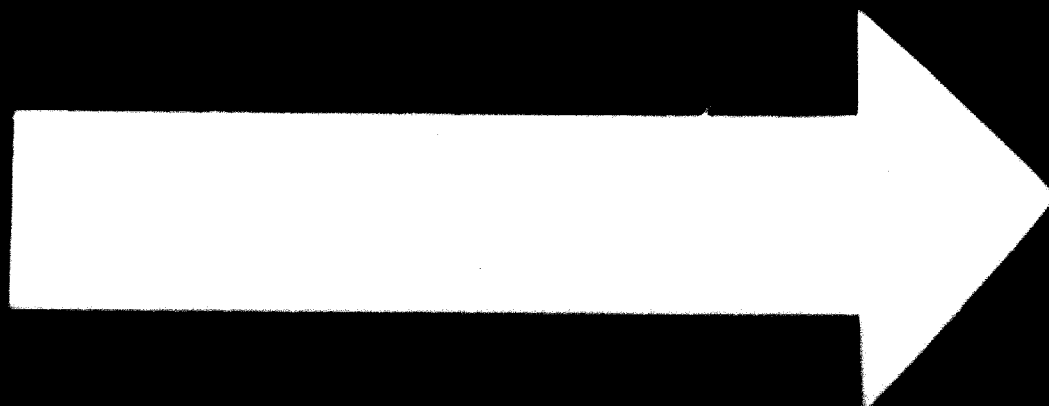
The Co-operative Development Centre, which was established by the Government and UNDP, is responsible for the extension of co-operatives (including research into) and for the promotion of education and training methods.

The national plans of Botswana are not five-year plans, they are mostly "rolling plans". They are constantly reviewed and revised when newer and better information is in hand. Every two years a new plan document is published which clearly sets out the position reached. The present document "National Development Plan 1970-1975" is the third which has been published since independence in 1966. It is a public sector plan designed to provide a detailed plan for the economic and social development of Botswana during the next three years and to give long-term guidelines for the future development where feasible and appropriate. It will be revised and brought up to date in early 1973, when a new 1973-1978 national development plan will be published.

10. Problems encountered through the previous plan period:

The main problems encountered through the precedent development period were:

- serious shortages in the administrative and technical personnel were a major reason for a delay in carrying out development projects;
- difficulty in collecting accurate and complete statistics and data;
- too much dependency of the rural sector on natural factors (droughts) and the scarcity of water resources;
- the traditional land tenure system which prohibited fencing on tribal land and the low standard of range management were the main obstacles to an improvement of industry.

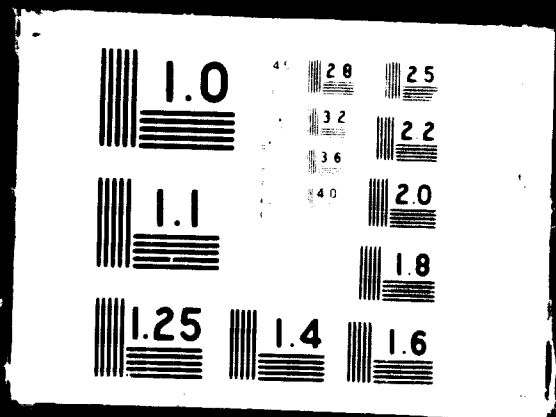


22.7.74

2 OF 10

D O

4 9 9 7



II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1975

1. General goals and objectives:(i) Planned growth:

	<u>1969-1970</u>	<u>1974-1975</u>	<u>Annual rate of growth</u>
Manufacturing GDP/ capita (\$)	n.a.	n.a.	-
Total GDP/capita (\$)	108	186	11.6%
Population (000)	648	752	3.0%
Manufacturing GDP (million \$ U.S.)	n.a.	n.a.	-
Total GDP (million \$ U.S.)*	70.02	140.06	15.0%
Consumption (million \$ U.S.)	n.a.	n.a.	-
Investment (million \$ U.S.)**	17.87	19.11	1.3%
Exports (million \$ U.S.)	n.a.	n.a.	-
Imports (million \$ U.S.)	n.a.	n.a.	-
Wage employment (000)	30	40	5.8%

*/ at constant prices.

**/ Capital expenditure.

(ii) Other objectives:

- to free the country entirely from grants-in-aid for ordinary recurrent expenditure within the next three years;
- to assure that the level of income of the rural sector does not lag too far that of the urban sector;
- to maximize the Government's tax revenues and channel the surplus generated in the rural development;
- to complete the creation of the mining sector which is supposed to stimulate the development of the whole industrial sector and provide immediate and substantial investment opportunities for the secondary industry.

2. Strategy and policy:

(i) General:

Due to favourable tax arrangements, encouragement of private enterprises, unrestricted labour policies, Botswana intends to attract light industry, particularly if it is labour-intensive.

Special attention will be paid to import-substitution industries, such as processed food, soft drinks and beer, clothing and textiles, building materials and fabrication.

On the other hand, Botswana intends to benefit from the duty-free access to South Africa, particularly with regard to candles, pharmaceutical, simple chemical and toilet products such as soap, plastic goods and clothing. A number of firms are already supplying the markets of both Zambia and South Africa with labour-intensive goods (clothes, hats, liquor). Numerous opportunities exist for the relocation of enterprises moving out of congested industrial areas and seeking a good site with real labour and market advantages.

Special attention will also be paid to industries processing a domestically available raw material: for example, the manufacture of leather and related products, game skins, trophies and curios business, ceramics and industries linked to the mining sector.

Properly laid out industrial areas will be developed with adequate power and water supplies.

Pioneer infant industries will be protected through the Industrial Development Act; further, an Investment Guarantee Agreement will be sought with foreign governments.

On the multilateral level, Botswana is a signatory to the International Convention for Settlement of Investment Disputes (ICSID). The repartition of profits is not subject to any restrictions and the phased recovery of capital investments is freely permitted.

(ii) Manpower and productivity:

Education:

In the long run, the Government's aim is to provide a universal primary education, but in the short term, the goal must be to ensure the maximum productivity of the existing system. During the plan period, the funds available for investments in primary education will be mainly directed towards the upgrading of standards rather than towards increasing the quantity of education. The main goals will be the following:

- to reduce crowded classes and try to reach a normal teacher/pupil ratio;
- to continue the phased exclusion of over-aged pupils and the abolition of repetition;
- to reform the primary school syllabus in order to adapt the curriculum as far as possible to the needs of the country, recognizing that the majority of pupils would inevitably be forced to seek their livelihood in the rural economy;
- to improve the teachers' training.

Concerning secondary education, the objective is to achieve a total manpower self-sufficiency within 25 years; the planning of secondary education will, therefore, be closely related with the manpower projections.

Demand and Supply of High-level Manpower

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1990</u>
Category I (degree or diploma qualifications)				
Total stock	683	1,004	1,475	3,184
Annual total demand	191	267	352	452
Annual supply of locals	30	52	150	472
Category II (minimum of five-year secondary education)				
Total stock	2,089	3,068	4,507	-
Annual total demand	496	652	705	-
Annual supply of locals	122	344	755	-

A better quality in teaching should, in the long run, lead to a reduction in the wastage rate within the secondary school system.

Projected Secondary School Enrolment

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Total enrolment	3,761	4,644	5,579	6,525	7,488	8,649
Category I entering the work force	30	36	28	32	41	52
Category II entering the work force	122	155	157	241	325	344
Category III entering the work force	213	328	441	467	611	689

Recognizing the prime importance of a selection procedure, the Government, as well as Lesotho, Malawi and Swaziland have signed an agreement with US.AID to establish a Regional Testing Centre with a branch in Gaborone, which will provide the Government with a comprehensive system of aptitude tests to enable selections to be made more efficiently.

All the existing institutions will have to be expanded to allow for increased enrolments made necessary by the demand for manpower. Consideration will be given to the establishment of a National Correspondence College which could provide courses for night schools to either supplement the teaching where adequate or replace sub-standard instructions (self-help night schools organized on a private basis).

Teacher training will have to be provided with higher professional qualifications. During the plan, subsidiary courses will be made available with the help of the US.AID, while a request for assistance of science teaching at all levels is currently before UNDP. Efforts will be made to build up a teaching staff in Botswana and to employ, as far as possible, new Botswana graduates instead of expatriate volunteers, mission personnel and other contract teachers.

Higher education:

It is planned that the shortage of Botswana's graduates will be steadily reduced only by 1990; there will be an undersupply in the manpower of Category I which will have to be met by the recruitment of expatriates. It is considered that the best solution for post-school instruction is to create only one suitable centre. The University of Botswana, Lesotho and Swaziland will probably have a centre in Botswana in the near future.

Vocational training is given very high priority since it is neither desirable nor feasible to rely on foreign personnel except as short-term expedient. Modern accelerated training methods will be used to educate the competent skilled

men required by the private sector and for the Government's own needs. UNDP is assisting Botswana in a special fund project which has two components:

- the formation of a division of vocational training within the Ministry of Education; and
- the establishment of a new vocational training centre in North Botswana.

Training of artisans and workers in the modern sector will be conducted by Youth Brigades (on-the-job instruction). The Botswana Training Centre will offer courses at the artisan level on technical subjects, as well as short courses for the Government and commercial sectors. Vocational training opportunities for women are to be increased, since women contribute greatly to the development of the rural sector. They will be trained also for the participation in the production process.

Two other important projects are the Agriculture College and the Co-operative Development Centre at the Content farm near Gaborone.

Wage policy:

Botswana has no comprehensive minimum wage policy. Wage levels are generally influenced by those in neighbouring countries and, except in the case of more senior employees, are generally lower.

The minimum wages paid by the Government (the major employer in the mining sector) for different work are intended as a guide for the private sector.

The "Regulation of Wages and Conditions of the Service Act" gives the Minister the power to set up Wage Councils for the purpose of making recommendations concerning wages. A Trade Union Act and a Trade Disputes Act were the steps taken by the Government in 1969 to establish the requisite legal framework.

Employment:

During the plan period, the net annual increase in the adult labour force will be about 10,000, while the average annual net increase in wage employment will probably not exceed 2,000, i.e. 20% of the increase.

Three out of five pupils leaving primary school will have to be absorbed by the rural sector or will have to find employment in South African mines. The Government has no intention to interfere with this flow of labour, although this situation is unlikely to continue indefinitely.

(iii) Investment and capacity utilization:Summary of Capital Expenditure by Departments

(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>
Agricultural department	791	1,276	1,209	1,683	1,222
Community development	176	79	62	42	28
Co-operative division	228	-	-	-	-
Development planning	104	87	18	-	-
Education	2,045	2,149	1,405	633	310
Wildlife and national parks	90	53	31	10	8
Government printer	8	-	-	-	-
Geological survey	247	203	15	45	39
Home affairs	111	119	163	137	161
Shashe complex	2,721	11,711	21,037	14,375	-
Interdepartmental projects	1,099	468	288	-	-
Information and broadcasting	-	259	79	-	-
Local Government and lands	245	136	15	24	8
Medical services	491	600	384	306	237
National Development Bank	386	526	316	322	351
Police	207	154	115	27	13
Posts and telegraphs	104	914	95	161	265
Public works	6,592	9,401	7,098	3,512	4,766
Surveys and lands	386	314	314	216	216
Veterinary department	321	425	321	313	207
Water branch	1,496	2,373	1,237	880	764
Weights and measures	28	-	-	-	-
Unallocated expenditure	-	-	4,909	9,818	10,519
Total	<u>17,877</u>	<u>31,247</u>	<u>39,112</u>	<u>32,504</u>	<u>19,115</u>
Total target expenditure *	14,088	29,213	38,969	32,458	18,855

- 49 -

* Except for the Shashe complex project, the expenditure is assumed to be only 75% achieved in each year with the balance carried forward.

Estimated Revenue from External Sources
(000 \$ U.S.)

<u>Sources</u>	<u>Use</u> <u>Recurrent budget</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>
United Kingdom's grant-in-aid		6,010	3,882	-	-	-
United Kingdom's Government	<u>Development budget</u>					
Oxford Committee of Relief	Various	3,886	3,401	3,405	-	-
	Demonstration ranches	14	-	-	-	-
	Mobile Animal Husbandry Team	41	18	-	-	-
	Small dam construction	41	-	-	-	-
	Development of fisheries in South Botswana	10	-	-	-	-
	Accruals on completed projects	8	-	-	-	-
United Kingdom's Freedom from Hunger Campaign	Grain storage	46	-	-	-	-
	Accruals on completed projects	21	-	-	-	-
Danish Government	Artificial insemination scheme	174	147	-	-	-
	Development of water resources	57	42	4	-	-
	Home Economics Lobatse T.T.C.	52	-	-	-	-
Netherlands' Government	Moeding College	123	-	-	-	-
S.I.D.A.	Co-operative Development Centres	229	-	-	-	-
	Development of water resources	196	142	14	-	-
	Vocational Training Centre	125	318	6	-	-
IBRD and IDA	Gaborone and Lobatse water supplies	421	2,087	-	-	-
	Shashe complex	2,720	11,711	21,037	14,375	-
	Gaborone/Lobatse road	140	1,403	701	701	701
	African Wildlife Wildlife conservation education	21	-	-	-	-
Leadership foundation						
ODM Research	Entomological research	18	-	-	-	-
Grants	Quelea control	18	14	-	-	-
UNICEF	Primary school improvement	72	-	-	-	-
Anglo-American	Lobatse secondary school	88	52	-	-	-
World Meteorological Organization	Meteorological equipment	39	-	-	-	-
Total development budget		<u>8,542</u>	<u>20,036</u>	<u>25,168</u>	<u>15,077</u>	<u>701</u>
Grand total		14,551	23,217	25,168	15,077	701

Institutions for industrial investment:

Besides the Government policy to protect foreign investors and give them guarantees (Investment Guarantee Agreements), there is a need for financial institutions to raise foreign capital for private enterprises.

Therefore, provision is made in the plan for a steadily increasing supply of commercial and industrial credits to be made by the National Development Bank and the Botswana Development Corporation. It is also intended to establish an investment centre where potential investors may obtain readily detailed information on investment opportunities and other relevant data.

The impact of the National Development Bank has been limited so far due to a shortage of capital and viable projects, as well as by its small staff. The Botswana Development Corporation has been established in order to meet this need. Nevertheless the Government considers that lendings by the National Development Bank should be made as follows:

- The Bank must adopt a policy which reflects the priorities of the Government.
- The Bank must cover loans for agriculture, trade, industry and housing.
- Emphasis should be placed on loans to small farmers and on the acceptance of an unorthodox security such as character loans.
- The Bank together with the Botswana Development Corporation should be regarded by the Government as the central agencies for the issue of credits; as far as possible, all Government credits should be channelled through these institutions.
- Loans should, as far as possible, be granted in kind and not in cash. The Bank should pay for goods and services supplied to borrowers who should handle as little cash as possible.
- Co-operative credit should be encouraged as this is one of the best and cheapest methods for the Bank to grant a large number of small loans.

The Botswana Development Corporation was planned to be fully operational before mid-1970 and will have to participate in the equity of promising new ventures in the partnership with foreign capital, where appropriate. It will manage the Government's investments in industry and commerce and grant commercial loans to private enterprises.

(iv) Interconnections between growth factors:

Incremental capital/output ratio: 1.35

Investment growth rate 1971-1975 = 1.3%

GDP growth rate 1971-1975 = 15.0%

Foreign Assistance/Output (GDP)

	1970-1971 (million \$ U.S.)	1974-1975 (million \$ U.S.)
Total foreign assistance	15.10	0.70
GDP	70.02	140.06
Foreign assistance/GDP	0.21	0.005

3. Data bases and projections:

The systematic collection of economic statistics has only recently been started by the Central Statistics Office. A series of reliable national income accounts is therefore not available. Estimates have been made, but they may contain a significant margin of errors. Figures relating to payments to and from abroad cannot be obtained easily due to Botswana's membership of the Rand currency area. It is planned to carry out an annual census of production in the different sectors of the economy like manufacturing, mining, quarrying, electricity, water and construction.

The programme of statistical work during the plan period will cover three fields:

- the collection of basic statistics of a general nature (population census, livestock census, manpower survey and survey of all business and agricultural activities);
- the collection of current statistics: priority is being given to statistics of external trade and to statistics for planning purposes;
- inquiries on specific areas or problems will be carried out at the direct request of other departments; surveys in both rural and urban areas will be made to provide information on retail prices and on the variation in expenditure patterns between different income groups and different parts of the country.

It is expected that by 1975 the basic minimum essential statistics should be available for a wide range of purposes.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

(ii) Planned growth of electricity:

The Gaborone Power Station, responsible for the supply of Gaborone and Lobatse, will have the following estimated future peak loads and energy requirements:

	<u>Peak loads (kw)</u>	<u>Energy demand (kwh)</u>
1970	4.4	16.8
1975	8.2	31.5
1980	13.2	50.8

A phased 10-year Investment Programme for 1971-1980 covering civil works, generating equipment and reticulation has been set up. The total capital cost of this programme is estimated at \$4.53 million.

A study is being made as to the feasibility and rationalization of the Botswana Meat Commission and the Gaborone power generating systems. If an integration of the two systems is likely to bring economic benefits, modifications to the proposed investment plan will probably have to be made for the next 10 years.

A new major power station will be established by 1973 at Selebi-Pikwe in the frame of the Shashe complex. This will have a 45 MW capacity and be capable of supplying power not only to the mining township but also to Tonota and Francistown. It will use the coal mines at Morupule. The capital cost is estimated at \$21 million.

In Francistown the installed power capacity will be completed by the power available from the Selebi-Pikwe power station. This would appear to be of sufficient capacity; yet it is not clear whether a further investment in the generating capacity will be justified.

Public power supplies are not available at Palapye, Mahalapye and Maun; power is purchased from the Rhodesian Railways for the first two places. It is intended to provide supplies for other main centres during the plan period.

The provisional phasing is as follows:

1971-1972	Serowe
1972-1973	Kanye
1973-1974	Malepolole.

This will be done when market surveys show that the cost of the investment financed by commercial loans can be recovered.

Considerable coal reserves in East Botswana are a potential source of fuel for a proposed major power station capable of supplying a national grid. The export of power might also be considered.

(iii) Planned growth of mining:

The very rapid development of the economy projected in the plan is almost entirely dependent on the successful creation of the mining sector. The potential having been identified, it is up to the private companies to undertake in close co-operation with the Government a massive programme of capital works.

The exploitation of the important deposits of diamonds in Orapa, of copper-nickel at Selebi-Pikwe and of coal in Morupule requires very large co-ordinated investments during the first three years of the plan period. In the North-east, these will give rise to a complex known as the Shashe complex.

In Orapa diamond mining is already at an advanced stage of development. The De Beers Prospecting Botswana Ltd. is investing approximately \$22 million in the first stage of development; a further investment of \$10 million will take place in 1973-1974 with a view to bringing stage two into production in 1975.

In Selebi-Pikwe copper-nickel deposits are held by Bamangwato Concessions Ltd. Studies have shown that the deposits can best be developed by mining at an annual rate of 2,381,000 tons of ore. There are sufficient proven deposits for about 20 years of mining operations. Ore will be treated at a common plant consisting of a concentrator and smelter equipped to produce annually 48,500 tons of copper-nickel matte and 137,815 tons of sulphur. The matte will be shipped overseas for treatment to yield approximately 15,100 tons of nickel and 17,420 tons of copper annually. The total capital required by the mining company for this project will be about \$98 million. The company is conducting negotiations for the procurement of loans financed, coupled with the refining of matte and subsequent sale of metal. It is anticipated by the Government that mining should start in 1973. The programme for the development of the needed infrastructure has been drafted accordingly.

The mining company in Selebi-Pikwe is expected to initially employ about 2,000 workers of whom 300 are expatriates; including all related and induced employment, the number of jobs created for local workers is estimated at 3,500 in 1974, rising to 5,300 in 1980 (the corresponding figures for expatriates are 380 and 235 respectively). The wage income generated by this employment is conservatively estimated at \$4.84 million in the first full year of operation. Of this total, the mine and its associated activities would account for \$3.37 million.

Expatriates will benefit from a higher proportion of wage income than of employment in the initial period; it is the Government's aim to achieve full localisation by 1990.

The Orapa mine will employ directly and indirectly approximately 400 Botswanian and 110 expatriates, rising to 670 Botswanian and 140 expatriates in 1975. The mine will start to generate taxation revenues to the Government in 1971-1972 and the figure may reach \$8.5 million a year by 1976-1977.

Taking the two mining ventures together, the annual revenue generated will greatly exceed the annual cost of the Central Government services and of the debt servicing associated with the Shashe project.

The exploitation of the coal mine at Morupule will also start during the plan period, operated by a company of the Anglo-American Corporation Group; the initial rate of mining will be 115,000 tons a year, rising to 142,000 tons a year by 1980. It will employ about 300 workers, almost all of them Botswanian.

The possibility of producing common salt, soda ash and sodium sulphate from the extensive deposits at Makgadikgadi has been proved to sustain a long-term operation; commercial production is projected to start within the plan period.

(iv) Priority of sectors:

No information is available on priorities within the industrial sector. Priority has been given mainly to the development of the mining sector. The whole plan is built on the successful creation of this sector and particularly on the Shashe complex. It is planned that the mining investment is likely to generate substantial secondary and linkage activities.

(v) Infrastructure connected with industry:

The construction of the Shashe complex will give rise to important infrastructure requirements. Feasibility studies financed by UNDP and the Government have shown that the following facilities will need to be provided at a total cost of \$47 million.

- Water supply: A dam on the Shashe river with trunk water mains to Selebi-Pikwe, Shashe Siding and Francistown. The capital cost is estimated at \$8.4 million.
- Electric power: A 45 MW thermal power station at Selebi-Pikwe with transmission lines to Francistown and Shashe Siding. The capital cost is estimated at \$21 million.
- Township: A township and municipal services at Selebi-Pikwe for an initial population of 7,500 which is expected to rise to 25,000 by 1980. The capital cost is estimated at \$12.6 million.
- Transport: A gravel road and a railway line. The capital cost is estimated at \$1.4 million.
- Hospital: A 350-bed hospital at Francistown. The capital cost is estimated at \$4.2 million.

The Government is setting up a project management team to supervise the construction of the infrastructure and power and water corporation to operate these facilities when complete.

At Orapa the De Beers Group is providing the major part of the infrastructure, the Government's investment being limited to \$3.15 million for a road and \$70,126 for a telephone line from Francistown to Orapa.

Stage one of the civil engineering works for the recovery plant and the township at Orapa are being constructed at a cost of \$5 million. At the same time the water supply for the mine is assured by the pumping of water from the Boteti river into the Mopipi pan and the construction of a pipeline from the pan to the mine.

Other main public works connected with industry:

- roads (3.5% of the total Government expenditure);
- air services (Gaborone - Selebi-Pikwe);
- water supply, borehole equipment;
- an industrial estate to accommodate firms unable to provide industrial buildings from their own resources.

(vi) Relationships with non-industry sectors of the economy:

It is estimated that an additional income of some \$2.8 million, exclusive from gambling, will be generated in the economy by 1975. The Government revenue alone will amount to around \$1.4 million, including the taxation for gambling.

The growth of the tourist accommodation will amount to 670% over the next five years. 565 beds will be added by 1972 and further 200 by 1975, bringing the total to around 900 beds available at that time. This excludes the development in the Kasane township after 1972, which may account for a further 500 beds. 50,000 tourists are expected to visit Botswana annually by 1975. Excluding the Kasane resort development, the tourism should provide direct and indirect employment for some 450 persons by 1973.

5. Planned industrial projects:

The National Development Plan 1970-1975 as a public sector plan does not give an extensive list of industrial projects except for those to be undertaken by the Government among which dominates the Shashe complex and the infrastructural works.

It is also important to emphasize that the implementation of the public expenditure programme depends on securing the external finance. A significant part of the finance required is already in sight, the remainder is still to be raised.

6. Organizational and institutional changes required for industrial plan implementation:

Throughout the early phase of the plan, a comprehensive programme of staff inspections will be carried out in each ministry.

Reforms will be introduced to improve the efficiency of the local Government administration and improve the co-ordination with the Central Government on the planning and implementation of development projects.

It is intended to gear the experience and abilities of district administration much more closely to the district development process. The Government recognizes that there is a need for establishing as soon as possible District Development Committees to co-ordinate the work of various agencies in the district with a view to promoting its development, to serve as a planning body for the district and to integrate the district council plan into the national development plan as it applies in the district as a whole.

The Committee would also be responsible for the implementation of the plan. The plan in its original version and a popular summary will circulate widely throughout the country to ensure that the people participate to the greatest extent in the implementation of the Government's policy and that they understand their Government's policies.

7. Problem areas particular to the industrial sector:

The main problems are the following:

- shortage in trained manpower;
- lack of working capital;
- poor basic physical infrastructure provided;
- low level of entrepreneurship;
- difficulties in marketing arrangements.

SUMMARY OF THE INDUSTRIAL DEVELOPMENT

PLAN OF IRAQ: 1970 - 1974^{*/}

- I. General background information
- II. Summary of the industrial development plan

^{*/} The National Development Plan, 1970-1974, Planning Board and Ministry of Planning, Baghdad, 1970, 189 pp.

BIBLIOGRAPHY

- H. Arfa: "The Kurds", OUP 1966.
- K.M. Langzey: "The Industrialization of Iraq", Harvard University Press 1961.
- S. Longrigg and F. Stoakes: "Iraq", London, 1959.
- E. Wirth: "Agrargeographie des Irak", Hamburg, 1962.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Iraq:Area:

	<u>Million hectares</u>
Total area	43,490
Agricultural area of which:	11,760
Arable and permanent crops	7,495
Meadows and pastures	4,265
Forested area	1,950
Non-agricultural area	29,780

Major cities:

	<u>Population in 1965</u>
Baghdad	2,000,000
Nineveh	890,000
Basra	670,000
Qadissiya	545,000
Thi-Qar	500,000

Other data:

(1969)

Number of automobiles	44,300
Number of trucks, goods vehicles	32,500
Number of tractors	8,227*
Number of telephones	90,000
Cement production (000 tons)	1,390
Electricity consumption	787 million kwh/h
Annual electricity production	2,400 million kwh

*/ Tractors sold from 1962-1969.

Exchange rates: (1971)

<u>Unit</u>	<u>Dinar equivalent</u>
US dollar	0.357
Pound sterling	0.857
Swiss franc	0.083
French franc	0.064
German mark	0.097
Italian lira (100)	0.057

2. Population:

	<u>1966</u>	<u>1969</u>	<u>Average annual increase</u>
Total population (000)	8,380	8,840	2.0%
Total employment (000)	2,288	2,546	4.2%
Employment in manufacturing in 1968 = 143,000			
Total employed population as % of total population	27.3	28.8	

Education:

The literacy rate is estimated at 20%, excluding nomadic tribes.

Third Level Education 1966
% Distribution by Field of Study

<u>Total</u>	<u>Humanities, fine arts</u>	<u>Law, social sciences</u>	<u>Natural sciences</u>	<u>Engineering, medicine and agriculture</u>
100	44	20	12	24

3. GDP:

	1964		1969		Average annual increase	
	<u>Planned</u>	<u>Actual</u>	<u>Planned</u>	<u>Actual</u>	<u>Planned</u>	<u>Actual</u>
Manufacturing GDP/capita (\$)	27.0	22.6	39.1	28.7	7.7%	4.9%
Total GDP/capita (\$)	275.1	271.7	386.3	316.1	7.0%	3.0%
Population (000)	7,250	7,847	8,000	9,205	2.0%	3.2%
Manufacturing GDP (million \$ U.S.)	196.1	177.6	312.9	264.4	9.9%	8.3%
Total GDP (million \$ U.S.)	1,994.3	2,132.1	3,090.6	2,910.0	9.2%	6.4%
Manufacturing % of total GDP	9.8	8.3	10.1	9.1		

Note: Revised GDP figures at factor costs as indicated in the 1970-1974 plan; for comparison see "Summaries of Industrial Development Plans of Thirty Countries".

GDP Structure
(million \$ U.S.)

	<u>1964</u>	<u>1969</u>
Agriculture	414.8	554.9
Mining, quarrying	752.9	949.5
Manufacturing	177.6	264.4
Electricity, gas, water	21.6	50.7
Building and construction	52.4	90.5
Transport, storage, communication	153.8	189.6
Trade and finance	146.2	225.5
Ownership of dwellings	41.4	46.8
Other services	371.4	538.1
Total GDP	<u>2,132.1</u>	<u>2,910.0</u>

4. Macro-economic indicators:

Money supply:

1966 - \$ 431 million
1969 - \$ 571 million
Average annual increase 9.7%

Prices: (1963 = 100)

1966 - 99
1969 - 112
Average annual increase 4.2%

GDP:

1966 - \$2,132 million
1969 - \$2,910 million
Average annual increase 6.4%

Exports: (f.o.b.)

1966 - \$ 935 million
1969 - \$1,044 million
Average annual increase 3.8%

Imports: (c.i.f.)

1966 - \$ 493 million
1969 - \$ 440 million
Average annual increase 3.8%

Balance of Payments
(million \$ U.S.)

	<u>1966</u>	<u>1969</u>
Goods and services	16.0	156.8
Trade balance c.i.f.	442.4	638.4
Investment income	-386.4	-439.6
Services	n.a.	n.a.
Other	-39.2	42.0
Transfers		
Private	2.8	5.6
Central Government	-2.8	-0.8
Capital		
Private	17.4	434.0
Central Government	4.2	-2.6
Deposit money banks		
Assets	8.4	-8.4
Liabilities	1.4	1.1
Monetary authorities	-77.0	-106.4
IMF accounts	4.2	78.4
Foreign exchange	-4.2	-40.6
Other assets	-89.6	14.0
Other liabilities	12.6	-1.4
Net errors and omissions	-23.8	-88.2

Central Government Finance
(million \$ U.S.)

	<u>1966*</u>	<u>1970*</u>
Total domestic revenue	<u>613</u>	<u>977</u>
Expenditure	<u>768</u>	<u>1,031</u>
Current	<u>538</u>	<u>723</u>
Capital	230	308
Deficit	<u>-155</u>	<u>-54</u>

* / Fiscal year beginning 1 April.

5. Industrial products and technology - main manufacturing industries:Main Manufacturing Enterprises Employing 10 Persons or More

	Establishments		Value added	
	<u>Number</u>	<u>%</u>	<u>Million \$ U.S.</u>	<u>%</u>
Food processing	269	23.66	29.7	20.76
Beverages	20	1.76	8.0	5.60
Tobacco	28	2.46	8.0	5.63
Textiles	90	7.92	17.3	12.07
Ready-made clothes	126	11.08	3.0	2.10
Leather and leather products	13	1.14	1.6	1.15
Shoes, except plastic and rubber	29	2.55	3.3	2.35
Wood and wood products	62	5.45	1.1	0.77
Paper and paper products (printing and publishing)	49	4.31	4.4	3.05
Chemicals and chemical products	47	4.13	35.6	24.93
Metal products (non-ferrous)	297	26.12	25.0	17.50
Metal products, except machinery	58	5.10	2.8	1.95
Other (including workshops)	49	4.31	3.1	2.14
Total	1,137	100.00	142.9	100.00

Production of Public Sector Industrial Enterprises*

	<u>Unit</u>	<u>1966</u>	<u>1969</u>	<u>Average annual increase</u>
Cement	000 tons	1,344	1,390	1.0%
Concrete blocks	000 blocks	6,633	15,467	32.4%
Bricks	000 bricks	43,874	43,432	-0.3%
Asbestos pipes	000 pipes	159	234	13.7%
Cloth	000 metres	32,184	37,587	5.6%
Yarn	Tons	3,110	1,036	-44.2%
Blankets	000 metres	178	218	6.8%
Carpets	Square metres	32,333	47,904	14.0%
Jute bags	Tons	2,792	2,890	2.0%
Canvas	Tons	71	478	87.0%
Sutlie thread	Tons	233	154	14.7%
Washing soap and powder	Tons	18,919	20,631	2.9%
Toilet soap	Tons	4,850	5,036	1.3%
Vegetable oil	Tons	43,660	56,601	9.1%
Cigarettes	000 gross	13,104	13,403	0.7%
Leather for shoe industry	Tons	843	983	5.4%
Hides and Moroccan leather	000 square feet	2,681	4,272	16.7%
Shoes	000 pairs	2,289	2,848	7.4%
Matches	Cartons	94,703	154,555	17.7%
Cigarette paper	000 boxes	708	824	5.1%
Flour	000 tons	134	129	-1.3%

*/ Including those public sector industries that existed before nationalization in 1964.

Source: Central Bank of Iraq.

6. Industry - related resources and sectors:

Forests:

Until 1969, 614,953 dunums^{a/} were demarcated and surveyed in Arbil, Mosul and Sulaimaniya Limas.

Main crops and livestock:

In 1967 the chief winter crops were 1,370,000 tons of wheat and 930,000 tons of barley. The chief summer crop in 1968 was rice (325,000 tons). The date crop is an important export good. The average production per year amounts to 350,000 tons. In 1968 about 255,000 tons of dates were exported. The country furnishes about 80% of the world's trade in dates. The main production area is the totally irrigated riverine belt of Shatt-el-Arab.

In 1968, 4,156 tons of cotton and 3,300 tons of wool were exported. The 1969 livestock consisted of:

Cattle	167,923
Buffaloes	244,622
Sheep	11,040,205
Goats	1,845,488
Horses	122,189
Donkeys	542,414
Mules	71,705
Camels	201,839

Minerals and mining:

Oil is the only important product. The country's oil reserves account for approximately 7% of the total reserves of the Western world. The greater part of Iraq's oil production comes from the Iraq Petroleum Company's field at Kirkuk. In 1966, 66.6 million long tons of crude petroleum were exported; the revenue received by the Government amounted to \$394.4 million.

Fuels and power:

Oil is the principal fuel.

^{a/} 1 mishara or dunum equals 25 are.

Transport:

The total length of track opened in 1969 was 2,352 km. A standard gauge line from Baghdad to Basra was completed in 1968 and runs parallel to the meter gauge route.

About 4,550 miles of roads and tracks have been built for vehicle traffic. The main surfaced roads are North from Baghdad via Kirkuk, Arbil and Mosul to the Turkish frontier at Zakko, with branches from Kirkuk to the province of Sulaimaniya, from Arbil to the Iranian frontier and from Mosul to Sinjar; about 350 miles of the main road West from Baghdad to the Jordanian frontier; the road East of Baghdad connecting the road system of Iran near Khanaqin; the road South from Baghdad to Hilla and Kerbela.

The Baghdad and Basra airports are served by international airlines.

7. Overall economic development strategy and policy:

The first plan^{*/} envisaged a total investment of \$2,298.8 million. The Central Government planned investments amounting to \$1,570 million; private sector planned investments (excluding foreign oil companies) amounting to \$506.8 million; and the official entities and nationalized industries planned investments amounting to \$221.2 million. While 69% of the financing for the Central Government planned investments were expected to originate from oil income, the contribution of other domestic sources and foreign loans was envisaged to be 14% and 17% respectively, whereby both the private sector and official entities were expected to finance their planned investment outlays from their own resources.

^{*/} See "Summaries of Industrial Development Plans of 30 Countries", April 1970, UNIDO/IPP/11, p.215.

The basic strategy of the plan was the strengthening of the commodity-producing sectors in order to diversify the economy and to reduce its heavy dependency on oil production and exports. This strategy was reflected in the pattern of investment allocation which gave priority to commodity-producing sectors; investment outlays for these sectors amounted to 55% of the total Central Government planned investments.

8. Regional co-operation:

9. Systems for planning and plan implementation:

The Ministry of Industry carries out industrialization programmes and is composed of several directorates; it also controls several semi-official organizations.

The Directorate of Industrial Design and Construction deals with industrial projects of the public sector which have already been approved by the Ministry of Planning for further investigation and/or execution. It is also responsible for negotiating and concluding contracts, as well as for the programming of annual activities related to each project.

The State Organization for Industry is responsible for the management and development of industrial plants.

The Directorate of Industrial Planning and Promotion carries out preliminary surveys to identify new projects; co-ordinates activities in public and private sectors.

The Ministry of Planning is responsible for the formulation of economic development plans.

The Planning Board is responsible for the preparation of the plan on the basis of studies and reports undertaken by various ministries. The Planning Board is headed by the Prime Minister; it is further constituted by the Ministers of Planning, Economics and Finance, as well as by the Governor of the Central Bank.

The Directorate of Industry (Ministry of Planning) reviews the proposals of various ministries for inclusion in the overall industrialization programme. It studies the techno-economic aspects of these proposals and, together with the Directorate of Economics, prepares a preliminary report on each project; this is then submitted to the steering committee.

The Ministry of Petroleum and Minerals is responsible for projects related to oil refining, oil products distribution, petrochemicals and mineral exploitation and processing. Foreign consultants are invited to carry out all the work required from project conception to implementation and start up operation.

The Department of Planning and Construction is composed of the following sections:

- Design - prepares preliminary studies of projects, plans and specifications;
- Construction - supervises the work of executing contractors;
- Projects - follows up the execution of projects at different phases;
- Planning - prepares studies and research on the industrialization of crude oil and gas.

The Steering Committee (Ministry of Planning) prepares the detailed plan and the annual investment procedures for implementation. It co-ordinates financial and economic policies and follows the execution of projects.

10. Problems encountered through the previous plan period:

The following problems have recurred over the past industrial development plan:

- lack of skilled labour and managerial personnel;
- absence of entrepreneurial initiative;
- limited domestic market;
- export marketing channels for non-oil products are weak;
- lack of diversification of manufactured products.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1974

1. General goals and objectives:(i) Planned growth:

	<u>1969</u>	<u>1974</u>	<u>Average annual increase</u>
Manufacturing GDP/ capita (\$)*	28.7	41.6	7.6%
Total GDP/capita (\$)*	316.1	364.3	2.8%
Population (000)	9,205	10,800	3.2%
Manufacturing GDP (million \$ U.S.)	264.4	449.0	11.2%
Total GDP (million \$ U.S.)	2,910.0	3,934.3	6.2%
Manufacturing % of total GDP	9.1	11.4	
Total consumption (million \$ U.S.)	2,136.4	2,814.0	5.7%
Investment (million \$ U.S.)	445.2	845.6	13.7%
Gross domestic savings (million \$ U.S.)	561.4	940.8	10.9%
Export of goods and services (million \$ U.S.)	1,142.4	1,304.8	2.7%
Import of goods and services (million \$ U.S.)	582.4	736.4	4.7%
Total employment (000)	2,546	3,165	4.4%
Manufacturing employment (000)	148	208	7.1%

* / Factor cost.

(ii) Other objectives:

- to develop commodity sectors, especially agriculture and manufacturing;
- to exploit unused minerals;
- to ensure a balanced geographical distribution of projects;
- to promote co-ordination and co-operation with other Arab countries;
- to improve the functioning of institutions responsible for plan implementation;
- to oblige public sector organizations to prepare annual production plans for their manufacturing establishments;
- to achieve monetary stabilization.

2. Strategy and policy:

(i) General:

To realize the plan targets the following policy measures will be pursued:

- New technology methods will be used to increase productivity.
- The expansion of human and capital investment will be balanced.
- Investment and saving policies will be co-ordinated so that stress is laid on the encouragement of national savings.
- The consumption policy and development goals will be interrelated.
- The principle of "balanced growth" in development planning will be pursued to ensure diversification of products.

- Production will be increased in order to diversify exports.
- The principle of complementarity of projects will be accepted.
- The role of the public sector in developing the economy will be increased.
- The maintenance of the internal balance has to be ensured.
- Stability of prices will be realized through the monetary policy.
- Banking facilities will be expanded in order to mobilize private savings.

- The banking sector will participate in financing the plan.
- A system of taxation reducing differences in income and wealth will be achieved.
- The ordinary budget expenditures and investment decisions included in the development plan will be co-ordinated.
- Exports, especially non-traditional exports, will be promoted and the efficiency of marketing agencies improved.
- Priority will be given to the import of investment goods and the import of consumption goods will be decreased.

(ii) Manpower and productivity:

Planned Increase in Employment
(000)

<u>Sector</u>	<u>1969</u>	<u>1974</u>	<u>Average annual increase</u>
Agriculture, forestry, fishing and hunting	1,449.8	1,770.4	3.4%
Mining and quarrying	15.5	17.2	1.7%
Manufacturing industry	148.0	208.0	5.9%
Electricity, gas and water	12.9	16.1	3.8%
Building and construction	67.0	96.0	6.1%
Transport, communications and storage	143.0	169.0	2.8%
Trade and finance	145.0	179.0	3.5%
Total service sectors	565.0	710.0	3.9%
Total	2,546.2	3,165.7	3.6%

It is planned that total wages and salaries will rise from \$726 million in 1969 to \$989.8 million in 1971, i.e. an increase of 6.3% per annum.

Planned Increase in Wages
(million \$ U.S.)

<u>Sector</u>	<u>1969</u>	<u>1974</u>	<u>Average annual increase</u>
Agriculture and forests	-	-	-
Mining and quarrying	28.5	30.9	1.6%
Manufacturing industry	87.2	122.9	6.8%
Electricity, gas and water	15.2	23.2	8.9%
Construction	<u>57.0</u>	<u>93.2</u>	<u>10.4%</u>
Total commodity sectors (excluding agriculture)	187.9	277.2	8.0%
Transport, communications and storage	83.9	110.7	5.7%
Commerce and finance	<u>26.2</u>	<u>36.4</u>	<u>6.8%</u>
Total distribution sectors	110.1	147.1	6.0%
Total service sectors	<u>427.5</u>	<u>566.0</u>	<u>5.7%</u>
Total (excluding agriculture)	726.0	989.8	6.3%

(iii) Investment and capacity utilization:

Sectoral Distribution of Investments 1970-1974
(million \$ U.S.)

<u>Sector</u>	<u>Central Government</u>	<u>Public sector</u>		<u>Private sectors*</u>	<u>Total</u>
		<u>administration</u>	<u>local</u>		
Agriculture	518.0	22.4		540.4	590.8
Industry	298.5	156.8		455.3	595.3
Mining and quarrying	2.8	429.8		432.6	432.9
Electricity	68.3	7.0		75.3	75.3
Total commodity sectors	887.6	616.0		1,503.6	1,694.3
Transport, communications and storage	168.0	152.0		320.0	418.0
Commerce and finance	-	49.0		49.0	91.0
Total distribution sectors	168.0	201.0		369.0	509.0
Housing	2.8	25.8		28.6	448.8
Other services	207.2	58.2		265.4	313.0
Total service sectors	210.0	84.0		294.0	761.8
Other investments	38.1	-		38.1	38.1
Total investment	1,303.7	901.0		2,204.7**	3,002.7
Loans from Government	76.4	-		76.4	76.4
International obligations	123.2	-		123.2	123.2
Total	1,503.3	901.0		2,404.4	3,202.4

* Includes the mixed sector.

** Includes investments in construction distributed among the different sectors.

*** Includes investments in buildings and construction.

National Development Plan Framework 1970-1974
(million \$ U.S.)

<u>Sector</u>	<u>Investment</u>	<u>Increase in value of production in GDP</u>	<u>Increase in employment (000)</u>	<u>Increase in wages</u>
Agriculture, forestry and hunting	590.8	259.6	320.6	*
Mining and quarrying	432.6	103.3	1.7	2.4
Manufacturing industry	595.3	469.8	60.0	42.7
Electricity, gas and water	75.3	40.6	3.2	8.0
Construction	-	241.1	29.0	36.2
Total commodity sectors	1,694.0	1,114.4	1,160.6	89.3
Transport, communications and storage	418.0	163.2	72.8	26.9
Commerce and finance	91.0	141.7	95.2	10.2
Total distribution sectors	509.0	304.9	168.0	37.0
Total service sectors	761.6	298.5	406.0	138.5
Total	3,002.7***	1,717.8	1,032.3	264.8

*/ Excluding agriculture.

**/ Allotments of constructions are distributed among other economic sectors.

***/ Includes other different investments amounting to \$38.1 million.

Distribution of Investment According to Types of Finance
(million \$ U.S.)

<u>Sector</u>	<u>Planned investment</u>	<u>Local currency</u>	<u>Foreign currency</u>	<u>Foreign currency % of total planned investment</u>
Agriculture	590.8	396.2	194.3	32.9
Industry	595.3	240.5	354.8	59.6
Mining	432.6	226.0	206.9	47.8
Electricity	75.3	25.5	49.8	66.3
Total commodity sectors	1,694.0	888.2	805.2	47.6
Transport, communications and storage	418.0	261.0	157.1	37.6
Commerce and finance	91.0	50.4	39.2	44.5
Total distribution sectors	509.0	311.4	197.7	38.8
Housing	448.8	372.7	75.9	16.9
Other services	312.8	220.9	92.1	26.4
Total service sectors	761.6	593.6	168.0	22.1
Other investments	38.1	19.0	19.0	50.0
Total	3,002.7*	1,812.2	1,190.6*	39.6

* These figures do not include international obligations amounting to \$123.2 million and loans granted to Government bodies of \$76.4 million.

(iv) Interconnections between growth factors:

The plan envisages a favourable development of the marginal capital/output ratio due to increases in productivity.

The marginal capital/output ratio for 1970-1974 is shown below:

Sectoral Breakdown of the Capital/Output Ratios in the 1970-1974 Development Plan
(million \$ U.S.)

<u>Sector</u>	<u>Planned increase in GDP</u>	<u>Planned investment</u>	<u>Capital/output ratio</u>
Agriculture	221.2	590.8	2.67
Industry	192.9	595.8	3.22
Metallurgy	89.3	432.6	4.84
Electricity	36.7	75.3	2.06
Total commodity sectors	631.4*	1,694.0	2.72
Transport and communications	85.0	418.0	4.92
Commerce and finance	116.8	91.0	0.78
Total distribution sectors	201.8	509.0	2.52
Total Service sectors	199.1	761.6	3.82
Total	1,032.3	3,002.7**	2.93

*/ Including an increase in the building and construction sector amounting to \$91.3 million.

**/ Including other investments amounting to \$38.1 million.

	<u>1969</u>	<u>1974</u>
Investment/GDP ratio	0.15	0.21
Export/import ratio	1.96	1.77

3. Data bases and projections:4. Planned growth of industrial sector:(i) Planned growth of manufacturing sector:Planned Value of Production in 1969 and 1974
(million \$ U.S.)

	<u>1969</u>	<u>1974</u>
Oil refining	64.7	102.5
Other manufacturing	589.1	1,021.2

Investment by Industry During the Plan Period 1970-1974
(million \$ U.S.)

	<u>Required investment</u>	<u>Allocated investment</u>
Chemicals	146.6	62.9
Pharmaceuticals	19.6	2.9
Food processing	30.8	28.3
Construction	18.9	13.7
Engineering	30.2	18.2
Textiles and spinning	68.2	20.4
Oil and gas	70.0	64.4
Geological survey programme	2.8	2.8
Production and distribution of electricity	60.2	50.1
Technical training	6.4	4.3
Completing implemented projects	14.0	14.0
Small electricity projects	42.0	18.2
New industrial projects	<u>210.3</u>	<u>69.4</u>
Total	728.0	369.6

(ii) Planned growth of electricity:

Production of electricity, water and gas will increase at 11.2% per annum from \$57.4 million in 1969 to \$98 million in 1974.

(iii) Planned growth of mining:

Production Targets for Mining and Quarrying
(million \$ U.S.)

	<u>1969</u>	<u>1974</u>	<u>Average annual increase</u>
Crude oil	1,068.6	1,146.0	1.4%
Other	17.9	43.9	19.5%
Total mining and quarrying	1,086.5	1,189.9	1.9%

(iv) Priority of sectors:

Priority will be given to the following industries in the interest of import-substitution:

- food industry;
- petrochemical and petroleum industries;
- construction material industries;
- engineering industries.

(v) Infrastructure connected with industry:

The plan aims at an extension and improvement of the road, rail, sea and air transport:

- It is planned to build 420 km of modern roads linking the principal cities and 150 km of secondary roads. Existing roads will be improved.

- Studies for the extension of rail transport services to all parts of the country and to neighbouring countries will be carried out.
- The Baghdad international airport will be completed.
- Sea port installations will be improved and wharves will be completed. A project for the improvement of the river navigation will be initiated.
- The construction of four new freighters and crude oil tankers and the purchase of small ships have been decided.
- The installation of modern automatic telephone exchanges of a 100,000-line capacity at all governmental centres is planned. Through the expansion of the microwave project, good connection between the cities all over the country and other parts of the world will be ensured.
- Television and radio stations in and outside Baghdad will be constructed.

(vi) Relationships with non-industry sectors of the economy:

The plan gives priority to the agricultural sector, since nearly two thirds of the country's population depend on agricultural activities for their living. The following are the principal objectives:

- development of the agricultural sector at an annual compound rate of 7%;
- satisfying the industrial sector's needs for agricultural raw materials to the greatest possible extent;
- substitution of imported agricultural products for locally-produced crops by expanding cultivation;
- increase in the agricultural production by concentrating on vertical expansion instead of horizontal agricultural expansion;
- increased exports of agricultural goods;
- increased water storage for irrigation purposes and for averting the danger of floods.

5. Planned industrial projects:Planned Projects, Total Cost of Projects and Allocated Investments
(million \$ U.S.)

<u>Project</u>	<u>Total cost</u>	<u>Allocated of project investment</u>
Chemicals		
Artificial silk plant (Sa-el Hindiyah)	35.3	11.5
Rayon plant (Basra)	50.4	28.0
Sulphur recovery plant (Kirkuk)	30.1	3.8
Chemical fertiliser plant (Basra)	30.8	19.6
Pharmaceuticals		
Pharmaceutical manufacturing plant (Samirra)	19.6	2.9
Food		
Sugar plant (Sulaimaniya)	16.8	16.5
Expansion of existing sugar plant (Mosul)	14.0	11.8
Construction		
Glass plant (Ramadi)	18.9	13.7
Engineering		
Agricultural machinery (Erkandria)	30.2	18.2
Spinning and weaving		
Cotton textile plant (Kut)	30.8	3.5
Fine textiles (Al-Hallah)	25.5	8.4
Expansion of textile plant (Al-Mosul)	11.9	8.4
Oil and gas		
Basra refinery	70.0	64.4
General geological survey	2.8	2.8
Transmission and generation of electricity		
Southern thermal plant	28.0	28.0
Electricity plant (Samirra)	17.5	9.8
Transmission of electricity to Al-Mandali pump plant and Badoush cement plant	3.5	2.5
Electricity lines of Kut-Amara-Basra and transmission of electricity to Alfaw	11.2	9.8
Vocational training projects		
Training centres (Eskandariyah, Kut, Baghdad)	5.9	3.8
Vocational training centres	0.5	0.5
Settling accounts of industrial and finished electrical projects	14.0	14.0
Small electricity projects	42.0	18.2
New industrial projects under study		
Projects contained in the agreement with the German Democratic Republic	33.9	33.9
Petrochemical projects	44.6	7.7
New projects	136.8	27.8
Total	725.0	369.5

6. Organizational and institutional changes required for industrial plan implementation:

A follow-up machinery will be created within the Ministry of Planning and within other responsible organizations.

An independent organization will be established under the auspices of the Ministry of Planning for the channelling of investment expenditures.

Organizations responsible for implementation will be staffed with qualified and technically competent employees.

Customs formalities will be simplified in relation to investment goods and intermediate inputs.

Government agencies will be reorganized on scientific bases in order to be able to discharge their responsibilities efficiently.

7. Problem areas particular to the industrial sector:

The problems to be encountered through the plan period include:

- lack of skilled labour and managerial personnel;
- absence of entrepreneurial initiative;
- a limited domestic market;
- weak export marketing channels for non-oil products;
- a non-diversified base for manufactured products.

SUMMARY OF THE INDUSTRIAL DEVELOPMENT
PLAN OF LESOTHO: 1970 - 1975^{*}

- I. General background information
- II. Summary of the industrial development plan

^{*}/ The Lesotho First Five-Year Development Plan, 1970-1975, Central Planning and Development Office, Maseru, 1970, 262 pp.

BIBLIOGRAPHY

First Five-Year Development Plan, 1970-1975, Central Planning and Development Office, Lesotho, Maseru, December 1970.

Lesotho: An Economic Survey, Barclays Bank DCO, London, February 1970.

Monthly Bulletin of Statistics, United Nations, New York, September 1971.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Lesotho:

<u>Area:</u>	Total	30,344 km ²
	of which arable land	4,047 km ²

Major cities:

	<u>Population in 1966</u>
Maseru	18,797
Teayteyaneng	5,867
Mafeteng	5,050
Hlotse	3,799
Mohale's Hoek	3,753

<u>Other data:</u>	Number of telephones in 1969	1,844
--------------------	------------------------------	-------

Exchange rates: (1971)

	<u>Unit</u>	<u>Rand equivalent</u>
	US dollar	0.75
	Pound sterling	1.91
	Swiss franc	0.19
	French franc	0.14
	German mark	0.23
	Italian lira (100)	0.13

2. Population:

During the years 1956-1966, the total population grew at an average annual rate of 2.9%.

	<u>1967</u>	<u>1970</u>
Male	592,949	517,579
Female	509,531	534,380
Total.	<u>1,002,480</u>	<u>1,051,959</u>

Employment Structure in 1966

Employment in agriculture	48%
Other paid employments in Lesotho	7%
Employment in South Africa	45%
Total	<u>100%</u>

The total labour force for 1969 was estimated at 430,000 persons of which the male labour force amounted to 270,000.

Education and training:Number of Primary Schools, Total Enrolment and Teachers
1963-1968

<u>Year</u>	<u>Number of schools</u>	<u>Total enrolment (000)</u>	<u>Total number of teachers</u>	<u>Teacher/pupil ratio</u>
1964	1,051	164	2,647	1:61
1966	1,078	167	2,827	1:59
1968	1,124	179	3,419	1:52

Number of Schools Other than Primary in 1968

	<u>Secondary schools</u>	<u>Teacher training schools</u>	<u>Technical and vocational schools</u>
Managed and financed by the Government	1	-	1
Committee controlled	3	-	-
Aided missions	22	7	4
Unaided missions	1	-	15
Total	<u>27</u>	<u>7</u>	<u>20</u>

In 1967 an "automatic promotion" system was introduced. This system requires regular attendance from the pupil and good record-keeping by the teacher on the performance of each pupil.

The University of Botswana, Lesotho and Swaziland (UBLS) is owned jointly by the three countries.

About 50% of the population over the age of 5 were recorded in the 1966 census as being able to read and write.

3. GDP:

	<u>1967-1968</u>
Manufacturing GDP/capita (\$)	5.3
Total GDP/capita (\$)	76.4
Population in 1968 (000)	1,018.1
Manufacturing GDP (million \$ U.S.)	5.4
Total GDP (million \$ U.S.)	77.8
Manufacturing GDP as % of total GDP	0.7

GDP Structure in % 1967-1968

Agriculture	39.0
Mining and quarrying	2.0
Manufacturing	0.7
Construction	1.7
Services (including Government services)	56.6
Total GDP	<u>100.0</u>

4. Macro-economic indicators:

Money supply:

n.a.

Prices:

No reliable price indices are available for Lesotho. The comparable South African wholesale and retail price indices rose by about 1.5% annually from 1960 to 1964 and by about 4% in 1965 and 1966.

GDP:

1967-1968 - \$77.8 million

Balance of Payments 1965-1968

(000 \$ U.S.)

	<u>1965-1966</u>	<u>1966-1967</u>	<u>1967-1968</u>
Exports	6,765	6,110	5,897
Imports	-26,222	-25,803	-33,452
Trade balance	-19,457	-19,693	-27,555
Services (net)	-6,027	-5,600	-6,471
	<u>-25,484</u>	<u>-25,293</u>	<u>-34,026</u>
Migrant workers' remittances	6,154	6,278	6,720
Transfers (persons) (Government aid, other)	16,250	18,157	18,900
	<u>-3,080</u>	<u>-858</u>	<u>-8,406</u>

Budgetary Position of the Government

(000 \$ U.S.)

	<u>1967-1968</u>	<u>1968-1969</u>	<u>1969-1970</u>
Local revenue of which:	7,364	7,914	12,618*
Share under customs agreement	2,341	2,323	6,635**
Recurrent expenditure	15,270	14,818	15,161
Deficit	7,906	6,904	2,543
Development expenditure	4,624	4,547	2,472

*/ excluding reimbursable expenditure.

**/ including income due under the customs agreement but not received till 1970-1971.

5. Industrial products and technology - main manufacturing industries:

Manufacturing is on a very restricted scale because Lesotho has no advantages apart from much unskilled labour to offer in competition with South Africa.

The few industries which existed until recently, include a number of small flour mills, a brickworks, two small printing works, a mohair blanket factory and four small furniture factories.

Since the Lesotho National Development Corporation, which was established in 1967, has been in operation, several new enterprises have been set up among them a candle factory, a carpet weaving factory and a stone-crushing plant.

Manufacturing Operations in Lesotho During 1966

	<u>Number of units</u>	<u>Gross output (000 \$ U.S.)</u>	<u>Total purchases and changes in stocks (000 \$ U.S.)</u>	<u>Net output (000 \$ U.S.)</u>	<u>Average number employed</u>	<u>Total earnings (000 \$ U.S.)</u>
Government	4	318.5	176.1	142.4	176	147.6
Private	8	758.0	443.9	314.0	446	165.2
Total	12	1,076.5	620.0	456.4	622	312.8

6. Industry - related resources and sectors:

Estimates of the Crop Situation in 1969-1970

<u>Crops</u>	<u>Acres</u>	<u>% of total acreage</u>	<u>Average yields in bags per acre</u>	<u>Total production in bags</u>	<u>Price per bag (\$ U.S.)</u>	<u>Gross value of production (000 \$ U.S.)</u>	<u>% of total gross value</u>
Maize	420,000	45.5	2.5	1,050,000	5.6	5,880	36.3
Sorghum	185,000	20.0	2.5	462,000	6.3	2,911	17.9
Wheat	215,000	23.3	3.0	645,000	7.0	4,515	27.8
Peas	47,000	5.1	2.0	94,000	12.6	1,184	7.3
Beans	30,000	3.2	2.0	60,000	14.0	840	5.2
Barley	12,000	1.3	3.0	36,000	7.0	252	1.5
Oats	5,000	0.5	-	-	-	49	0.3
Vegetables/fruits potatoes	8,000	0.9	-	-	-	560	3.4
Other	2,000	0.2	-	-	-	56	0.3
	<u>924,000</u>	<u>100.0</u>		<u>2,347,000</u>		<u>16,247</u>	<u>100.0</u>
				Less estimated inputs (import content) Value added		<u>2,520</u> <u>13,727</u>	

Gross Production Value and Value Added of Livestock Products
in 1968-1969
 (000 \$ U.S.)

Beef (export)	1,680
Beef (local)	420
Dairying	1,820
Wool	2,100
Mutton	1,400
Mohair	980
Goat meat	420
Hides	70
Skins	210
Poultry	1,400
Pigs	70
Other	420
	<hr/>
	10,990
Less inputs (mainly import content)	1,330
	<hr/>
Value added	9,660

Minerals:

Diamonds: principal mineral of commercial value, found at several places.

Exports of Diamonds by Licensed Dealers

	<u>Quantity</u> <u>(carats)</u>	<u>Value</u> <u>(000 \$ U.S.)</u>	<u>Price per carat</u> <u>(\$)</u>
1964-1965	4,333	307	70.8
1965-1966	6,211	822	132.3
1966	12,505	976	78.0
1967	21,737	1,425	65.5
1968	11,913	526	44.1
1969	29,787	1,643	55.2

Note: The upward trend was broken in 1967 due to the closure of Anglo-American operations.

Coal: Several promising sources have been discovered.

Galena: Samples have been found.

Quartz crystals and agate: Small well-formed crystals are common.

Petroleum: Initial reconnaissance and geophysical surveys have to be carried out.

Electricity:

Electricity is supplied by the Lesotho Electricity Corporation, a public-owned body established under legislation. Most of the electricity supplied is purchased in bulk from the Electricity Supply Commission of South Africa (ESCOM).

Transport:

Roads and tracks: Bitumen-surfaced or gravel roads connect all main towns in the West of the country from Quthing in the South through Mahale's Hoek to Mafeteng and Maseru and northwards to Teyateyaneng, Leribe and Butha-Buthe. Feeder roads have been constructed in agricultural areas, especially in the Leribe district.

Food aid funds supplied by the World Food Programme and by the Catholic Relief Services have been used for the construction of tracks capable of carrying 5-ton trucks in the more mountainous and inaccessible parts of the country.

Civil aviation:

At present, many remote places which have no road connections are served by aircraft. The main airstrips are at Maseru, Mokhotlong, Sehonghong, Semonkong and Qacha's Nek.

Railways:

The country is linked with the South African Railways Rail Network through a short branch line from Maseru to Marseilles on the Bloemfontein-Natal main line. Only one mile of the line is actually in Lesotho, but two South African lines run close to the boundary.



22.7.74

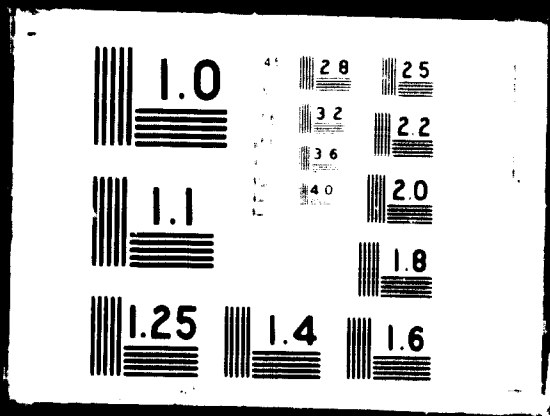
3

OF

10

DO

4997



Exports in 1966, 1967 and 1968
(000 \$ U.S.)

	<u>1966</u>	<u>1967</u>	<u>1968</u>
Cattle	650	1,683	1,541
Sheep	84	45	143
Other live animals	25	11	55
Wheat	80	46	251
Peas and beans	174	647	225
Other food-stuffs	7	49	34
Wool	2,605	1,233	1,222
Mohair	1,320	528	595
Hides and skins	132	137	111
Diamonds	976	1,424	526
Other crude materials	8	22	15
Other exports	81	10	14
Total	<u>6,142</u>	<u>5,835</u>	<u>4,732</u>

Imports in 1966, 1967 and 1968
(000 \$ U.S.)

	<u>1966</u>	<u>1967</u>	<u>1968</u>
Food-stuffs and livestock	9,003	6,418	6,474
Beverages and tobacco	876	1,208	1,172
Crude materials	494	617	543
Mineral fuels and lubricants	1,450	2,247	1,614
Animal and vegetable oils	244	216	176
Chemicals	1,792	2,436	2,383
Manufactured goods classified chiefly by materials	8,036	7,440	7,301
Machinery and transport equipment	2,853	3,493	3,580
Miscellaneous manufactured goods	5,627	7,538	8,562
Commodities not elsewhere stated	1,708	1,708	1,708
Total	<u>32,083</u>	<u>33,321</u>	<u>33,513</u>

7. Overall economic development strategy and policy:

Measures which have been taken by the Government to promote industry:

- The Lesotho National Development Corporation (LNDC), established in 1967, has been the principal agent for new industrial development. Virtually, all the manufacturing industry established since then has resulted from its operations. It is principally concerned with the type of industry for which outside capital is required and assists by acting as a liaison with government departments by the negotiation of concessions and through its own participation. The total value of industrial investment which it has promoted so far is of the order of \$2.1 million, including the value of its own participation.
- The Village Industries Development Organization (VIDO) helps in the production and marketing of handicraft products.
- Legislation has been passed to provide special incentives for new industry. The principal concessions include: under the Pioneer Industries Encouragement Act, either a six-year tax holiday or a greatly accelerated depreciation allowance on machinery plus a 45% machinery investment allowance, a 75% buildings investment allowance and a 45% allowance on industrial housing. There are also allowances on the cost of infrastructure services, transport, training and the wage bill. Under the Industrial Licensing Act, an exclusive licence may be given to manufacture a product for five years, renewable for a further five years.
- In view of the difficulties which were experienced in the past in finding land for industry with a reasonable security of tenure, a 50-year lease was granted to Basutoland Factory Estates (BAFED) for an industrial area in Maseru. This has now been transferred to the Lesotho National Development Corporation for an indefinite period. The Lesotho National Development Corporation has also acquired an area for industrial development at Ficksburg Bridge. Accommodation has been provided for craftsmen at the Maseru market.

8. Regional co-operation:

Since 1910 Lesotho has been part of the South African Customs Union and as such does not operate customs posts at its borders, a free flow of goods, apart from a few exceptions (diamonds and alcoholic beverages), being permitted across the common frontier with South Africa.

The new customs agreement, which provides for the continuance of the customs union arrangements, makes provision for the following:

- the duty-free interchange without quantitative control of domestic products;
- the free interchange of duty-paid goods imported from outside the common customs area;
- the levying of uniform customs, excise and sales duties;
- the consultation on the imposition and amendment of customs duties;
- the imposition of additional duties for protective purposes by Lesotho, Botswana and Swaziland;
- the maintenance or increase of external tariffs necessary for the protection of specified industries in Lesotho, Botswana and Swaziland;
- regulating the marketing of agricultural produce;
- a revised method of calculating the division of customs, excise and sales duty revenue;
- the establishment of machinery for intergovernmental consultation through a Customs Union Commission.

Imports from the United Kingdom of Great Britain and Northern Ireland and the Commonwealth enjoy preferential tariffs.

9. Systems for planning and plan implementation:

10. Problems encountered through the previous plan period:

Crop yields are generally very poor due to adverse climate conditions, soil erosion, primitive farming and shortage of labour. The large exodus of the male labour force to South Africa has created difficulties for Lesotho's agricultural development.

The land tenure system appears to be responsible for a number of major obstacles to the modernization of the agricultural production. In particular:

- it impedes the consolidation of scattered land holdings into larger and more efficient units.
- it makes individual farmers reluctant to improve the land as there is no security of tenure.
- it makes the extension of agricultural credits difficult because of the lack of individual ownership.

The livestock industry suffers from overstocking, uncontrolled breeding and parasite infestation.

The prospects of the country's income benefits from migrant labour are to be considered unfavourable; stagnation rather than appreciable improvements should be expected in the long run because of the very low wages paid to Basotho workers.

The level of effective demand for investment funds inside Lesotho is very low. There are also institutional and legal difficulties in the way of the local utilization of funds.

Domestic production is inadequate to satisfy local demand.

The present educational system is expensive and inefficient in terms of the money already invested in education and the number of pupils actually reaching and completing the final year of the secondary course. Only 16% of the pupils who start their primary education have been able to complete it, and only 10% have been able to pass the final primary examination.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1975

1. General goals and objectives:(i) Planned growth:

A GDP annual rate of growth of at least 5% will be expected over the plan period.

On the basis of an estimated 2% population growth rate, a 5% rate of income growth will result in a 3% increase of GDP per capita.

(ii) Other objectives:

The general objectives are:

- to give highest priority to the development of the agricultural sector;
- to promote as far as possible non-agricultural productive activities, placing special emphasis on small-scale indigenous industries;
- to prepare for the full exploitation of the country's water and mineral resources and, in particular, to carry out the first construction phase of the Malibamatso River project;
- to develop education and post-school training related to the country's economic and social needs;
- to create 10,000 to 15,000 new employment opportunities, mainly in non-agricultural activities;
- to bring about drastic changes in public administration, so as to make its structure more development oriented;
- to adopt a systematic localization policy, primarily in the public sector;
- to substantially improve social services in general and health standards in particular;
- to strengthen economic co-operation with the countries of the South African Customs Union, as well as with other African countries.

2. Strategy and policy:

(i) General:

Manufacturing and tourism will be promoted by securing the fundamental pre-conditions. The establishment in 1967 of the Lesotho National Development Corporation (LNDC) and the enactment of the Pioneer Industries Bill still are both decisive steps in this direction.

The highest priority is given to the establishment of small-scale enterprises which serve both as import-substitution plants for the small Lesotho market and as export-oriented plants for handicraft, skin, leather and weaving industries.

A transport survey is undertaken by the Transport Research Centre of the University of Stellenbosch, and a report is expected in 1971.

The standards of financial control and management at all levels have to be improved.

Economic exploitation of the water resources is envisaged mainly in three directions:

- irrigation;
- sales of water to South Africa
- production of hydroelectric power.

(ii) Manpower and productivity:

An increase in the productivity of the agricultural sector will be obtained by:

- an increase in yields;
- a shift in the production towards more profitable crops.

Education:

Primary education: The efficiency of the existing schools has to be improved by increasing the number of children completing the courses.

The curriculum has to be revised and will involve the preparation of revised textbooks and the retraining of existing teachers.

Teacher training: The establishment of a National Teacher Training College, capable of accommodating 1,000 students (among them 800 boarders) is planned.

Courses will be held at two levels:

- at the post-junior certificate level for the training of primary school teachers;
- at the post-matriculation level for the training of secondary school teachers.

Teachers will attend courses at the university; up to 16 foreign science and mathematics graduate teachers will be appointed by the Ministry of Education.

Secondary education: It is hoped to increase the secondary school output over the five-year period as follows:

<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
865	1,165	1,195	1,245	1,740

A Regional Testing Resource and Training Centre, established together with the Governments of Malawi, Botswana and Swaziland, will create a modern regional testing programme for the entrance into secondary schools and train people in carrying out this programme.

The University of Botswana, Lesotho and Swaziland (UBLS): The regional nature of the University of Botswana, Lesotho and Swaziland will be maintained and broadened. Its primary function should be the development of middle-level manpower within a clearly defined system of higher education for the three countries concerned.

Vocational training: The Government will support the establishment of post-primary vocational schools which will give practical courses in the crop production, poultry farming, animal husbandry, handicraft and other subjects with a rural bias related to the locality in which the school is situated.

Other training: Trade and technician training will be furthered by giving high priority to the enlargement of the Lerotholi Artisan Training Centre, a Government institution located in Maseru.

A mathematics/science centre is being established in Maseru.

Summary of Capital Expenditure on Education 1970/1971-1974/1975
(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>	<u>Total</u>
Furniture equipment, teaching aids and appliances for primary school	-	28.0	21.0	21.0	21.0	91.0
Vocational education, buildings and equipment	-	14.0	14.0	14.0	14.0	56.0
National Teacher Training College	-	630.0	700.0	735.0	-	2,065.0
Expansion and improvement of secondary school facilities	199.5	182.0	182.0	182.0	182.0	927.8
Science laboratories	-	50.4	33.6	67.2	-	151.2
Science equipment	7.0	7.0	7.0	7.0	7.0	35.0
Completion and equipment, including books of science/mathematics centre in Maseru	10.5	10.5	10.5	10.5	-	42.0
School of education, university of Botswana, Lesotho and Swaziland	-	-	532.0	-	-	532.0
National Technical Education Institute	57.4	4.2	560.0	560.0	-	1,181.6
Archives	-	-	-	-	84.0	84.0
Museum	-	28.0	70.0	-	-	98.0
Library	-	-	-	65.0	63.0	126.0
Sports and recreation	-	35.0	49.0	-	-	84.0
Water supplies for secondary schools	49.0	98.0	-	-	-	147.0
Improvement of the sewerage systems, secondary schools	-	-	35.0	35.0	-	70.0
Total	323.4	1,087.1	2,214.0	1,694.7	371.0	5,690.6

Additional Recurrent Costs 1970/1971-1974/1975
(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>	<u>Total</u>
National Teacher Training College	-	-	182.0	252.0	322.0	756.0
Secondary school teachers, including specialists in science and mathematics	28.0	147.8	207.3	249.1	290.1	922.3
Counterparts for experts at the mathematics/science centre	-	-	4.2	4.4	4.6	13.2
Mathematics/science centre's running costs	-	-	2.8	2.8	2.8	8.4
Additional bursaries at the university of Botswana, Lesotho and Swaziland	-	18.2	32.2	32.2	32.2	114.8
Technical institute	-	13.7	140.0	168.0	219.8	541.5
Running costs of the museum, archives and library	-	-	14.0	28.0	42.0	84.0
Total	28.0	179.7	582.5	736.5	913.5	2,440.2

Employment:

A target of 10,000 to 15,000 new jobs over the 5-year period is based on estimates of labour requirements for the planned expansion in agricultural and non-agricultural sectors and for carrying out the first construction phase of the Malibamatso river project.

(iii) Investment and capacity utilization:

The principal financing sources of investment are:

- foreign capital which will play a leading role; and
- domestic capital provided through the Lesotho National Development Corporation.

Over the quinquennium the Lesotho National Development Corporation plans to invest \$4.2 million in industry and hopes to attract private investment for a substantial multiple of this amount. It will develop the industrial areas at Maseru and Ficksburg Bridge through the provision of basic services such as roads, water, drainage and sewerage.

The Lesotho National Development Corporation's Factory Area Development
(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>	<u>Total</u>
Basic services	-	630	-	-	-	630
Factory construction	140	140	210	280	280	1,050
Total	140	770	210	280	280	1,680

It is not possible to estimate the total industrial investment over the plan period. Most of the capital will come from the private sector and, in particular, from foreign investors. Thus a major factor will be the degree to which the Lesotho National Development Corporation succeeds in using its own funds to attract private capital.

(iv) Interconnection between growth factors:

3. Data bases and projections:

The GDP rate of growth has been arrived at from sectoral projections which in turn are based on technical feasibility considerations and on the fulfilment of certain policy and investment assumptions. These projections indicate the possibility of a greater annual rate of growth, but 5% has been fixed as a minimum target.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

Manufacturing activities will grow considerably during the plan period, taking into account that at least 1.9% of the 5% per annum increase in GNP will be contributed by non-agricultural activities. Since manufacturing makes such a small contribution to income and employment at present, this implies a substantial proportionate growth of this sector, even though the absolute amount involved is not large. Furthermore, much of the work in the manufacturing sector is expected to be of an investigational and exploratory type; this will lay the foundation for more substantial growth in the next plan period.

(ii) Planned growth of electricity:

No specific five-year plan for the electricity sector is envisaged.

The Lesotho Electricity Corporation will consider demands for electricity wherever they arise over the period to see whether a public supply is economically feasible.

Between \$84,000 and \$112,000 per annum will be considered necessary to cover development expenditures for the electricity sector.

(iii) Planned growth of mining:Mining Expenditures 1971/1972-1973/1974

(000 \$ U.S.)

	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Mineral survey	364	168	183	715
Aid to diggers	43	-	-	43
Total	<u>407</u>	<u>168</u>	<u>183</u>	<u>758</u>

Note: Expenditures in the last year of the plan period will depend on the results of the mineral survey.

The principal requirement at present will be further investigation of the country's mineral resources, i.e. diamonds, coal, galena, quartz, crystals, agate and petroleum and their economic potential. Over the five-year period, priority will be given to a mineral survey about known kimberlite pipes, as well as a geochemical and geophysical survey covering the whole country.

The second requirement will be the improvement in the efficiency of existing diamond diggers by providing them with better equipment on a loan basis and by making available an adequate water supply.

(iv) Priority of sectors:

The highest priority during the plan period will be given to increase agricultural productivity substantially in both the crop and livestock sectors.

In the long run, non-agricultural productive activities will become a major path to economic development.

Within the non-agricultural activities highest priority will be given to small-scale industries, since they are most appropriate for the economy of Lesotho.

(v) Infrastructure connected with industry:Roads and tracks:Road and Track Expenditures 1970/1971-1974/1975

(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>	<u>Total</u>
Maseru industrial access road*	137	13	11	-	-	161
Other roads in Maseru	43	41	224	179	28	515
Caledon river bridge in Maseru	-	-	-	56	207	263
Picksburg bridge, Mapoteng junction	56	140	-	-	-	196
Bituminous surfacing, Tsoaing-Mafeteng	-	252	420	224	-	896
Mohale's Hoek - Semongkong	-	70	70	91	-	231
Access road - Malibamatso river project	7	385	112	-	-	504
Bituminous surfacing Masianokeng - Roma	22	34	280	-	-	336
Leribe - Butha-Buthe	-	-	350	574	210	1,134
Mafeteng - Mohale's Hoek	-	-	350	560	560	1,470
Mohale's Hoek - Quthing**	-	-	-	280	560	840
Rutha-Buthe - Caledonspoort	-	-	-	-	126	126
Mafeteng - Van Rooyen's Gate	-	-	-	476	140	616
Pek - Peka bridge	-	-	-	-	74	74
Mohale's Hoek/Quthing - junction to Makhaleng road	-	-	-	-	67	67
Mohale's Hoek/Quthing - junction to Tele bridge**	-	-	-	-	-	-
Betterment of district roads	28	28	28	28	56	56
Township roads and drainage	28	70	70	126	28	140
Foot-bridges in rural areas	-	7	7	7	7	28
Vehicles for road branch	276	-	-	-	-	276
Radio equipment	-	-	-	13	-	13
Transport studies	36	-	-	-	-	36
Preliminary investigations and feasibility studies	42	63	77	24	24	230
Mechanical aid for food aid tracks	49	70	70	70	70	329
Metrication of equipment and instruments	-	7	7	7	-	21
Total	724	1,180	2,076	2,775	2,345	9,095

* Including storm water drainage for the industrial area.

** To be completed in the subsequent period.

Recurrent expenditures for the maintenance of existing roads and tracks will amount to \$1 million during the five-year period.

A transport survey is at present being conducted by the Transport Research Centre of the University of Stellenbosch under technical assistance from South Africa. It will be based on the following criteria:

- the extent to which the construction of roads and tracks will lead to services by existing transport users;
- the extent to which the construction will likely lead to an increased commodity production or other income-producing activities such as tourism;
- the extent to which the provision of administrative and other services will be made possible;
- the extent to which savings could be effected in the recurrent expenditures of the Ministry of Works itself.

Civil aviation:

Long-term decisions as to the role air transport is to play in the overall transport development must await the receipt of the Stellenbosch Transport Survey.

Civil Aviation Expenditures 1970-1975

(000 \$ U.S.)

	<u>Total</u>
Airfield improvement	98
New airfield for Malibanatso river project	60
Air navigational equipment	50
Bituminising the runway in Maseru	126
Total	<u>334</u>

Note: No additional net expenditures will fall on the budget.

Post and telecommunication:Telecommunication and Post Expenditures 1970-1975
(000 \$ U.S.)

	<u>Total</u>
Telecommunications	
Telephone exchanges in district centres	130
Maseru trunk-exchange	214
Maseru extension exchange	163
Radio call service	17
Automatic telegraph exchange in Maseru	70
Northern Lesotho VHF link	168
Miscellaneous improvements	105
Consultancy services	8
	<hr/>
Total telecommunications	875
Posts	
Extension - Mokhotlong post office	7
Other post offices	55
	<hr/>
Total posts	62
	<hr/>
Grand total	937

The plan's purposes for post and telecommunication are as follows:

- to provide an adequate service to meet the current demand;
- to allow for normal expansion, bearing in mind the economies of scale possible in the capital equipment provision;
- to build a national telecommunication network which will provide the means to give service to industrial development areas as they arise.

(vi) Relationships with non-industry sectors of the economy:Commerce:

The following measures will be taken for promoting commercial activities:

- Improved trading facilities will be provided for trade in the main towns. The Lesotho National Development Corporation is examining the possibility of co-operating in the establishment of shopping centres in Maseru and Ficksburg Bridge. Covered markets for small traders will be provided at a number of traditional centres. The total costs for covered markets will amount to \$128,800.

- Assistance and advice will be given to small traders on matters such as book-keeping, stock control, etc.
- The Government will provide technical assistance to Co-operative Bulk-buying Syndicates.

Agriculture and livestock:Targets for the Crop Production 1974-1975

<u>Crop</u>	<u>Acreage</u> <u>acres</u>	<u>% of</u> <u>total</u>	<u>Yields</u> <u>(200 lbs)</u>	<u>Total</u> <u>production</u> <u>(bags)</u>	<u>Price</u> <u>per bag</u> <u>(\$ U.S.)</u>	<u>Gross value</u> <u>of production</u> <u>(000 \$ U.S.)</u>	<u>% of</u> <u>total</u> <u>gross value</u>
Maize	380,000	37.6	4.0	1,520,000	5.6	8,512	29.7
Sorghum	170,000	16.8	4.0	680,000	6.3	4,284	15.0
Wheat	315,000	31.2	4.5	1,418,000	7.0	9,926	34.6
Peas	67,000	6.6	3.0	201,000	12.6	2,534	8.8
Beans	40,000	4.0	3.0	120,000	14.0	1,680	5.9
Barley	16,000	1.6	3.5	56,000	7.0	392	1.4
Oats	10,000	1.0				252	0.9
Vegetables, fruits and potatoes	10,000	1.0				1,064	3.7
Other	2,000	0.2				56	
Total	1,010,000	100.0				28,700	100.0
						Less inputs (import content)	
						5,600	
						Value added	
						23,100	

Capital Requirements for the Crop Production,
Irrigation and Soil Conservation 1970-1975

(000 \$ U.S.)

	<u>Total</u>
Fertilizer seed subsidies	415.1
FAO fertilizer programme	160.1
Crop research	133.4
Hire for tractors	206.8
Irrigation	
Projects	2,779.0
Research stations	58.4
Soil and water conservation, construction, workshops, vehicles, etc.	1,269.4
UNDP integrated agricultural programme	1,150.6
Mountain wheat multiplication	21.0
Vegetable and fruit improvement	59.5
Inducement grants for communal gardens	74.2
Total	<u>6,327.5</u>

Recurrent Requirements for the Crop Production
1970-1975

(000 \$ U.S.)

	<u>Total</u>
Crop research	489.3
Irrigation	
Research stations	141.7
Research unit	84.0
Soil and water conservation	110.1
UNDP integrated agriculture programme	127.4
Total	<u>952.5</u>

Livestocks: Gross Value of Production and Gross Value Added
(000 \$ U.S.)

	Gross value 1968-1969	Gross value 1974-1975 (targets)	Absolute change in value	% change in gross value	% change per annum
Beef (export)	1,680	2,100	420	25	4.6
Beef (local)	420	700	280	67	10.8
Dairying	1,820	3,220	1,400	77	12.2
Wool	2,100	3,500	1,400	67	10.8
Mutton	1,400	1,820	420	33	5.4
Mohair	980	1,260	280	28	5.1
Goat meat	420	420	-	-	-
Hides	70	140	70	100	14.9
Skins	210	280	70	33	5.4
Poultry	1,400	2,100	700	50	8.4
Pigs	70	210	140	200	24.8
Other	420	420	-	-	-
	<u>10,990</u>	<u>16,170</u>	<u>5,180</u>	<u>Average</u>	<u>8.1</u>
				47.5	
Less inputs (mainly import content)	1,330	2,100	770		
Value added	<u>9,660</u>	<u>14,070</u>	<u>4,410</u>	<u>45.7</u>	<u>7.6</u>

Development Programme for Livestock 1970-1975
Capital Cost
 (000 \$ U.S.)

	<u>Total</u>
Sheep breeding stations	
Mokhotlong station	28.4
New station	117.6
Goat breeding station	112.0
Cattle breeding station	243.6
Dipping	38.9
Livestock centres	121.8
Woolsheds and shelters (repairs and equipment)	106.7
Promotion of wool and mohair industry (breed animals, etc.)	53.2
Pasture research and veld management	55.6
Poultry plant	16.1
Hides and skins	7.2
Veterinary investigation centre	19.3
Helminthiasis	49.0
Liver Fluke	6.3
Livestock marketing corporation	78.4
Maseru Abattoir	119.0
Field slaughter houses	33.6
Fishery development	16.8
Livestock offices	20.3
	1,243.8

Development Programme for Livestock 1970-1975Recurrent Cost*/

(000 \$ U.S.)

	<u>Total</u>
Sheep breeding station	
Mokhotlong station	20.9
	(56.0)
	-35.1
New station	9.8
	(14.0)
	-4.2
Cattle breeding station	48.3
	(107.1)
	-60.9
Dipping (net recurrent)	33.6
Livestock centres	130.2
	(151.2)
	-21.0
Woolsheds	12.6
Pasture research and management	
Continuation	149.2
Oxbow catchment	91.9
Helminthiasis (continuation)	33.8
Helminthiasis (Liver Fluke implementation)	11.2
Veterinary centre	267.1
Accounting management of special funds	22.4
Fishery development	27.8
Total	<u>858.7</u>

*/ The positive figures in brackets represent the total current cost to the project. The negative figures represent the total revenue to the project, while positive figures without brackets represent the net recurrent cost.

Cost Estimates for Agricultural Training and
Education 1970-1975

Capital Cost

(000 \$ U.S.)

	<u>Total</u>
Young farmers clubs	84
Farmers' training centres	63
Agricultural college	
New men's staff housing, furniture	76
Improvement of college buildings and equipment	21
Total	<u>244</u>

Cost Estimates for Agricultural Training and
Education 1970-1975

Recurrent Cost

(000 \$ U.S.)

	<u>Total</u>
Farmers' training centres	92
Nutrition	35
Agricultural college (personal emoluments, etc.)	24
Total	<u>151</u>

Cost Estimates for Co-operatives and Catchment
Associations 1970-1975

(000 \$ U.S.)

<u>Capital</u>	<u>Total</u>
Rural offices and housing	196
Workshops, craft centres	87
Catchment Associations	1,057
Total	<u>1,340</u>
Additional recurrent Education, training and information	168

5. Planned industrial projects:

Industrial surveys suggest that a number of industries may be established. These include import-substitution industries, such as clay and cement products, various textiles and garments, meat processing, tanning and leather products, various food products and agricultural implements and export industries, such as wool, mohair and diamond processing.

The possibility of establishing these industries will be investigated in detail by the Government.

6. Organizational and institutional changes required for industrial plan implementation:

The administrative machinery will be changed in order that its structure becomes more development oriented, while at the same time its functioning costs are kept as low as possible.

Special emphasis will be placed on strengthening the planning machinery and the Bureau of Statistics and on the reorganization of the District Development Committee.

The implementation of the five-year plan will be based on the following system:

Central Planning and Development Office (CPDO):

The Central Planning and Development Office will be mainly responsible for:

- formulating and revising long-term development plans and co-ordinating sectoral programmes into medium-term and annual development plans;
- recommending policies, measures and machinery required in order to mobilize financial, material and human resources for implementing development plans;
- maintaining a continuous review and evaluation of progress on development plan implementation, identifying factors which are retarding or may retard development and dealing with them in collaboration with responsible ministries;

- co-ordinating requests for and use of foreign assistance;
- conducting or arranging for research into the growth potential of the economy of Lesotho and undertaking research when necessary.

Budget and Economic Planning Committee:

The Budget and Economic Planning Committee has the following main functions:

- to consider development proposals submitted by the Planning Office;
- to arbitrate on disagreements between the Central Planning and Development Office and any Government agency;
- to consider recurrent budget proposals of all Government departments as processed and submitted by the Ministry of Finance;
- to examine the recurrent budget in relation to the development proposals submitted to the Committee by the Director of Planning in order to ensure that the budget is an instrument of plan implementation;
- to review progress reports on plan implementation, to draw the Government's attention to any bottlenecks which are impeding the process of implementation and obtain the necessary remedial directives.

National Planning Consultative Council:

The National Planning Consultative Council will facilitate consultation and co-operation between the Government and the private sector on economic and social problems. The Council will consist of representatives of national groups and associations. The Director of Planning and Development will be the Chairman of the Council and the Planning Office will act as its secretariat.

Sectoral Programming Units:

Sectoral Programming Units will be established in the various ministries. The functions of these Units are:

- to assist the departments of the ministry in the preparation and implementation of development projects;
- to combine and integrate projects and proposals of the ministry into sectoral programmes for inclusion in the medium-term plans;

- to submit at regular intervals progress reports to the Central Planning and Development Office on physical and financial implementation of annual development projects and the national plans;
- to prepare applications for technical assistance personnel and equipment and to advise the Permanent Secretary on their effective utilization;
- generally to help the ministries to co-ordinate their own activities internally and advise the Permanent Secretary on the best ways of implementing the ministry's programmes.

These Programming Units will be the main channels of communication between the Central Planning Office and the operating ministries.

Project Review Committees:

The Project Review Committees will ensure the proper examination and evaluation of development projects. They will be responsible for appraising the technical aspects of projects and indicate any points requiring elucidation, more information or modification.

Constructional Capacity Committee (CCC):

The Constructional Capacity Committee will consider constructional problems relating to specific projects and suggest means and policies for removing bottlenecks. The recommendations of the Constructional Capacity Committee will be passed on to the programming units of the ministries and offices represented in the Budget and Economic Planning Committee.

District Consultative Committees:

The District Consultative Committees will co-ordinate and follow up Government programmes in the districts, suggest priorities and report on local conditions and difficulties related to project implementation.

7. Problem areas particular to the industrial sector:

Lesotho has only few raw materials apart from wood, mohair, some other agricultural and livestock products, clay, diamonds and some semi-precious stones.

Transport costs to the principal external market, the Johannesburg area, are high.

There is a lack of local entrepreneurship and industrial know-how and a shortage of people with technical and scientific qualifications.

Existing financial institutions and technical advisory services are inadequate for assisting the local industry.

At the present stage of development, new industries have few internal linkages in the economy; i.e. they obtain most of their inputs from outside the country and most of their output is exported. Thus the secondary indirect effects of the establishment of new industries on the encouragement of other industries have so far been very limited.

SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF MAURITIUS: 1971 - 1975 */

- I. General background information
- II. Summary of the industrial development plan

*/ Fourth-Year Plan for Social and Economic Development, 1971-1975, Vol.I: General Analysis and Policies, 265 pp.; Vol.II: The Programmes and Projects, 109 pp., Port Louis, Mauritius, June 1971.

BIBLIOGRAPHY

Four-Year Plan for Social and Economic Development, 1971-1975,
 Vol.I: "General Analysis and Policies"; Vol.II: "The
 Programmes and Projects", Port Louis, Mauritius, June 1971.

Mauritius: "An Economic Survey", Barclays Bank DCO, London,
 May 1971.

Monthly Bulletin of Statistics, United Nations, New York,
 October 1972.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Mauritius:

<u>Area:</u>	Total area	1,860 km ²
	Agricultural area	1,040 km ²
	Forests, scrubs, grassland, etc.	820 km ²

<u>Major cities:</u>	(1969)	<u>Population</u>
	Port Louis	139,000
	Rose Hill/Beau Bassin	71,260
	Curepipe	51,960
	Vacoas/Phoenix	48,900
	Quatre Bornes	45,400

<u>Other data:</u>	(1969)	
	Telephone stations	16,793

<u>Exchange rates:</u>	(1971)	
	<u>Unit</u>	<u>Rupee equivalent</u>
	US dollar	5.56
	Pound sterling	13.33
	Swiss franc	1.36
	French franc	1.01
	German mark	1.59
	Italian lira (100)	0.90

2. Population:

Over the past two decades the population of Mauritius has been increasing at an average annual rate of 2.7%.

Distribution of the Population by Age Groups
(000)

<u>Age group</u>	<u>1967*</u>	<u>1970*</u>
Under 15	338.6	336.4
15-64	412.1	448.7
65 and over	27.0	30.4
Total	<u>777.7</u>	<u>815.5</u>

Base: 1962 population census corrected single year of age data allowing for an underenumeration of young children.

*/ Estimates.

Age Structure of the Population

<u>Age group</u>	<u>1944</u>	<u>1952</u>	<u>1962</u>
Under 15	35.1%	40.2%	45.3%
15-64	61.9%	56.6%	51.5%
65 and over	3.0%	3.2%	3.2%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
Dependency ratio *	618	767	943

*/ Number of persons below age 15 and aged 65 and over per 1,000 persons in the economically active age group 15-64.

Employment in 1969

	<u>Number of employees</u>	<u>% of total</u>
Agriculture, forestry and livestock	72,300	37.1
Lagoon and off-shore fisheries	3,500	1.8
Marine fisheries	300	0.1
Mining and quarrying	400	0.2
Processing agricultural export crops	6,600	3.4
Manufacturing		
Establishments employing ten or more persons	9,000	4.6
Artisanat	9,400	4.8
Construction and public works	13,000	6.7
Electricity, water and public utilities	1,300	0.6
Transport and communications	13,400	6.9
Import and export, wholesale and retail trade	19,800	10.2
Services	32,100	16.5
Public administration	13,900	7.1
Total	<u>195,000</u>	<u>100.0</u>

The economically active population amounts to approximately 30% of the total population.

Education and training:

Primary education is free but not compulsory.

At the end of October 1969 there were 1,976 Government and 55 state-aided schools.

The average attendance at Government schools was 78,905 (102,902 on roll) and at state-aided primary schools 30,227 (37,951 on roll).

In October 1969 there were two state senior primary schools, one for boys and one for girls and 1 state mixed central school (375 on roll) providing a free 3-year post-primary non-vocational course with an emphasis on handicraft and homecraft respectively, 106 unaided primary schools with an enrolment of 2,310; 9 grant-aided and 21 unaided secondary schools with primary sections with an enrolment of 3,327.

In October 1969 there were 3 Government boys' schools (one of which has technical and commercial streams) and one Government girls' school with 2,616 pupils and 13 aided and 124 unaided secondary schools for boys and girls with an enrolment of 7,003 and 32,825 respectively for secondary education.

There is also a Government post-secondary Agricultural College (62 full-time and 76 part-time students on roll) which now forms part of the University of Mauritius, a teachers' training college (668 on roll) and 5 vocational training centres (101 on roll).

The Government expenditure on education in 1968-1969 was \$5.3 million, excluding the capital expenditure on new buildings and other development work which cost \$252,000.

3. GDP^{*/}:

	<u>1969</u>
Manufacturing GDP/capita (\$)	29.7
Total GDP/capita (\$)	191.2
Population (000)	800
Manufacturing GDP (million \$ U.S.)	23.8
Total GDP (million \$ U.S.)	153.0
Manufacturing GDP as % of total GDP	16

^{*/} at factor cost.

4. Macro-economic indicators:Money supply (at the end of 1969):

Currency in circulation	\$18.0 million
Demand deposits	<u>\$21.6 million</u>
Total	<u>\$39.6 million</u>

Prices:

Since 1962 consumer prices rose at an average of 2% per annum, except in 1968 where the rise of 7% was primarily due to the devaluation of the Rupee in November 1967.

Balance of Payments

(million \$ U.S.)

	<u>1969</u>
Exports (f.o.b.)	65.7
Imports (f.o.b.)	62.5
Net trade balance	3.2
Net services	-2.2
Net transfers	2.7
Net long-term capital movements	2.2
Other capital, errors and omissions	0.3
	<u>6.2</u>

Public Finance

<u>Recurrent expenditure</u> <u>1969-1970</u>	<u>Million \$ U.S.</u>	<u>%</u>
Social services, relief and transfer of payments	20.3	49.6
Economic and technical services	6.5	16.0
General administration	8.7	21.4
Debt servicing	5.3	13.0
Total	40.8	100.0

<u>Recurrent revenue</u> <u>1969-1970</u>	<u>Million \$ U.S.</u>	<u>%</u>
Para-fiscal and non-fiscal revenues	8.5	20.8
Direct taxes	9.3	22.7
Indirect taxes	23.2	56.5
Total	41.0	100.0

5. Industrial products and technology - main manufacturing industries:

Industrial development since the last industrial census is almost exclusively accounted for by establishments which were granted concessions by the Government. By the end of 1970 the Government had issued licences (Development Certificates) to 110 industries, out of which 70 have gone into production. The majority of the Development Certificates was issued during the last three years: 1968 - 12; 1969 - 29; 1970 - 21.

Among the industries established are (not including industries established recently under the Export Processing Zone System):

- beer;
- ale;
- stout;
- gin;
- jam;
- pickles;

- spaghetti;
- vermicelli;
- margarine;
- vegetable oil;
- dehydration of vegetables;
- paints and varnishes;
- carbon dioxide;
- cement bulk handling and bagging;
- concrete products;
- nails;
- oxygen;
- acetylene;
- floor tiles;
- shutters;
- candles;
- garments;
- metal furniture;
- spring mattresses;
- mirrors;
- soap;
- cosmetics;
- razor-blades;
- rubber gloves;
- polishes;
- fibre glass;
- reinforced plastic products;
- metal springs;
- wood working;
- packaging materials of paper;
- paper board and foam plastic;
- diamond cutting and polishing;
- saw milling;
- metal doors and windows;
- metallic structures;
- wire fencing;
- wire products;
- rolled steel products.

Two important new industries, which will replace substantial imports, are under construction: a plant for the manufacture of 100,000 tons product weight per annum of chemical fertilizers and a particle board plant with a capacity of 5,000 tons per annum, using bagasse as the basic raw material.

Manufacturing industries other than sugar milling and tea and aloe fibre processing are almost wholly geared into the domestic market and had only a limited growth potential because of the small size of the local market.

Imports
(million \$ U.S.)

<u>Products</u>	<u>1967</u>	<u>1969</u>	<u>Average annual increase</u>
Food	21.3	23.9	5.8%
Beverages and tobacco	0.9	1.0	4.9%
Fuels, lubricants, etc.	5.8	6.7	7.2%
Animal and vegetable oils, etc.	3.3	2.2	-
Chemicals	7.7	7.7	-
Manufactured goods	19.9	13.0	-
Machinery and transport equipment	7.9	8.0	1.0%
Total	<u>66.8</u>	<u>62.5</u>	-

Imports
Manufactured Food
(with indications of prospects for the local production)
(000 \$ U.S.)

	Average value 1965-1969	Value 1969
Meat preparation	300	323*
Dairy products	2,073	1,968**
Fish preparation	506	392**
Flour and other cereal preparations	3,503	4,612**
Bacon, ham and salted pork	72	79**
Preparation of vegetables and fruit	410	414**
Sugar confectionery and other preparations	140	128***
Chocolate and chocolate preparation	98	103**
Margarine and shortenings	440	104***
Food preparations not elsewhere stated	104	93
Non-alcoholic beverages	36	44***
Refined vegetable oil	2,556	1,703***
Alcoholic beverages	671	615*

*/ Existing production facilities not sufficient to cover the demand. Extension and/or diversification may be feasible.

**/ No production facilities at present. The scope of the demand may be sufficient to consider the establishment of manufacturing.

***/ Production facilities, existing or under construction, with a sufficient production capacity to cover all of the present and medium-term demand.

- 137 -

ImportsManufactured Consumer Goods Other Than Food-stuffs
(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Textile fabrics (excluding fabrics considered as intermediate goods)	3,208	3,140
Clothing, except fur clothing	1,313	1,049*
Blankets, bed linen, made-up articles of textiles	283	272**
Footwear	511	335***
Travel goods, sport goods, harness makers' goods, toys, games	362	309**
Mechanic electric refrigerators	147	146
Electrothermic apparatus, comprising stoves	124	123**
Portable domestic electrical appliances	63	62
Television sets and parts	522	590
Passenger road motor vehicles (other than public service buses)	470	433
Motor cycles	60	44
Tyres and tubes	662	591
Ships and boats	4	11
Bicycles and parts	112	84
Phonographs, record players, records	107	180
Other musical instruments	26	14
Cinematographic projectors, sound film recorders	28	21
Photographic and cinematographic cameras	124	157
Photographic and cinematographic supplies	109	125
Clocks and watches	92	117
Furniture and fixtures	194	85*
Floor covering and tapestries (also fibre carpets, etc.)	56	56*

ImportsManufactured Consumer Goods Other than Food-stuffs (cont.)
(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value 1965-1969	Value 1969
Mirrors and looking glass	20	20***
Sewing machines	92	43
Pottery and glassware	218	263
Household utensils, cutlery and other household articles of metal	368	342**
Perfumery, cosmetics, soaps, cleansing and polishing preparations	1,126	710***
Fuel and lubricating oils, greases and polishing preparations	1,524	1,676
Published materials	558	509*
Stationery	136	129*
Pharmaceuticals, starches and saccharine tablets	1,365	1,430*
Jewellery, gold and silver	51	42*
Electric batteries and bulbs	170	156***
Sundry goods of which	1,238	1,206
Candles	17	7
Matches	30	9
Plastic articles, baskets, brooms and brushes	331	358*
Fountain-pens	60	56

- 139 -

ImportsManufactured Intermediate Goods

(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value 1965-1969	Value 1969
Animal feed	732	870*
Yeast for animal feed	34	29
Wood shaped or simply worked	461	359**
Waxes	60	93
Coconut (copra) oil	115	83
Hydrogenerated oils and fats	106	278
Coal tar dyes and natural indigo	69	75
Pigments, paints, varnishes and related material including prepared paint and enamels	486	370***
Essential oils, perfume and flavour materials	210	236
Manufactured fertilizers	3,287	3,078***
Propellant powders, fuses, detonators	21	49
Synthetic plastic material in primary forms	214	292
Weed-killing preparations	617	541**
Insecticides and pesticides	204	207**
Cassein, albumen, gelatin	68	68
Chemical materials and products not elsewhere stated	192	238
Leather	20	37*
Soles, uppers and other parts of shoes	31	51
Veneer, plywood, boards, artificial or reconstituted wood of which:	219	227***
Plywood	187	211***
Wood manufactures not elsewhere stated of which:	105	172*
Boxes, cases, crates	62	125*
Cork manufactures	25	22
Newsprint, printing and wrapping paper	307	376

particle board

Imports

Manufactured Intermediate Goods (continued)
(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Paper board, corrugated cardboard	87	127
Building board of paper, paper and paper board bituminized, coated, etc. and wall paper	113	89
Cigarette paper	28	26
Paper bags, cardboard boxes	127	83*
Paper bags for cement	53	46
Registers and ledgers, account-order and receipt forms	57	74*
Textile yarn and thread	168	141***
Cotton fabrics: grey, unbleached	102	77
Jute fabrics	15	11
Knitted fabrics	61	208***
Tulle, lace of silk, synthetic and other fibres	75	86
Ribbons, trimmings, tapes	33	37
Embroidery	55	45
Special textile fabrics and related products	265	310
Bags, sacks, tarpaulins, tents	32	29
Linoleum and similar products	8	10
Lime, cement and fabricated building materials, except glass and clay materials of which:		
Cement	1,484	1,507**
	1,443	1,502
Clay construction materials and refractory construction materials	144	104**
Mineral manufactures, not including clay and glass of which:		
Asbestos cement pressure piping	219	245**
	139	162
Manufactures of asbestos	36	39

sewing thread

- 141 -

Imports

Manufactured Intermediate Goods (continued)
 (with indications of prospects for the local production)
 (000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Glass and manufactures of which:	248	218
Sheet glass unworked	98	89
Bottles, flasks and other containers of glass	102	99
Pig iron and sponge iron	5	6
Ingots, blooms, slabs	30	67
Joists, girders, angles	913	658*
Universals, plates, sheets of iron or steel uncoated	126	147
Plates and sheets of iron or steel coated and tinned	392	324
Wire rods and wire, coated and uncoated	112	89
Steel tubes and fittings	209	146** welded tubes
Pipes and fittings, cast iron	213	200
Castings and forgings not elsewhere stated	20	19
Rods, sheets, pipes of brass, copper and alloy	64	49
Sheets, pipes, rods of lead, zinc and alloy	34	21
Solder, tin and alloy, bars and rods of non-ferrous base metal not elsewhere stated	22	32
Metal doors, windows and parts	185	19*
Wire cables and ropes	41	45
Wire netting, wire fencing, etc. of iron and steel	57	56
Nails, bolts, washers, rivets, screws of iron and steel	101	70*
Nails, bolts, washers, rivets, screws of copper, brass, aluminium and other base metals	21	19

Imports

Manufactured Intermediate Goods (continued)
 (with indications of prospects for the local production)
 (000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Hand tools	159	156**
Hardware (padlocks, fittings, etc.)	197	157*
Metal containers, drums	87	153**
Capsules for bottles and crown corks	97	112***
Electrical appliances for motor-cars, cycles, tractors, aircraft and explosion motors	124	110
Insulated wires and cables for electricity	301	136
Storage batteries and accumulators	38	24***
Central heating apparatus, sinks, wash basins and fittings	167	136**
Lighting fixtures	109	82**
Commercial propaganda material	23	32*
Calendars and blocks for calendars, printed cards, etc.	96	78*

- 143 -

ImportsCapital Goods

(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Safes, strong room fittings	12	20
Steam generating boilers, boiler house plants and parts	158	90*
Steam engines, stationary and marine, steam tractors, locomotives, parts	54	47
Internal combustion engines, diesel and semi-diesel	141	165
Engines not elsewhere stated, e.g. wind engines, hot air engines, water and gas turbines	37	156
Agricultural machinery and implements	203	283**
Tractors other than steam	413	423
Office machinery	248	383
Metalworking machinery	86	121
Mining, construction and other industrial machinery of which:	1,827	1,635
Pumps for liquids for the manufacturing industry and agricultural production, parts	138	128**
Industrial trucks and parts	11	3
Bulldozers and parts	40	2
Mobile cranes and spare parts	15	9
Conveying, hoisting, road construction and mining machinery	181	133
Wood working machinery	14	28

ImportsCapital Goods (continued)

(with indications of prospects for the local production)

(000 \$ U.S.)

	Average value	
	<u>1965-1969</u>	<u>Value 1969</u>
Pneumatic tools	21	38
Printing type and printing plates	25	22
Textile machinery and accessories	13	27
Printing and bookbinding machinery	91	139
Industrial sewing machinery	15	29
Industrial refrigerating equipment	59	13
Air conditioning and refrigerating equipment	103	59
Machinery and appliances not elsewhere stated	527	522
Ball, needle and roller bearings	103	83
Machinery parts and accessories not elsewhere stated, except electric	483	400
Electric generators, converters, transformers and parts	279	325
Electric batteries not elsewhere stated	31	39
Apparatus for telegraphy and telephony	104	124
Electrothermic apparatus, other and parts	69	77
Apparatus for measuring and controlling electric energy, for signalling and safety apparatus and parts	69	47
Electric apparatus for medical purposes and radiological apparatus	28	19
Portable electric tools and appliances	36	35
Other electrical machinery not elsewhere stated	589	546

Imports
Capital Goods (continued)
 (with indications of prospects for the local production)
 (000 \$ U.S.)

	Average value <u>1965-1969</u>	<u>Value 1969</u>
Railway and tramway vehicles and parts	14	10
Buses for use as public service vehicles, trucks, lorries and road motor vehicles	217	93
Chassis with engines mounted for trucks, buses, lorries and road motor vehicles	285	318
Bodies, chassis, frames and other parts for road motor vehicles other than motor cycles and tractors	607	528*
Road vehicles not elsewhere stated including trailers of iron and steel	21	13*
Optical instruments and appliances	43	49
Surgical, medical, dental instruments and appliances	41	30
Measuring, controlling and scientific instruments and parts	154	181

Transport:

There are 15.3 km of motorway, 565 km of main roads, 594 miles of urban roads and 612 miles of rural roads. All the main urban and rural roads have a bitumen surface. At the end of 1969 there were 12,442 cars, including 1,331 for public hire, 693 buses and 2,718 motor cycles. Commercial vehicles comprised 3,405 lorries and vans and 666 haulage tractors.

The airport of Plaisance is operated and managed by the Government and served regularly by international airlines.

The harbour in Port Louis is well organized and provided with modern facilities. In 1969, 615,000 tons of commodities were exported and 759,000 tons imported.

Main Exports
(million \$ U.S.)

<u>Products</u>	<u>1967</u>	<u>1969</u>	<u>Average annual growth rate</u>
Sugar	50.0	59.2	8.6%
Molasses	1.5	2.1	18.3%
Tea	1.5	2.8	36.7%
Other	0.7	1.6	51.0%
Total	53.7	65.7	10.5%

6. Industry - related resources and sectors:

Forests:

The total forest area is estimated at approximately 405 ha.

In 1969 sales of forest produce from the crown land amounted to about 38,500 m³, value \$46,800.

Main crops and livestock:

The area planted with sugar-cane, which is the main crop, is 830 km². In 1969 there were 22 sugar mills in operation and the amount of sugar produced was 22,924 tons of white sugar and 645,748 tons of raw sugar. 166,160 tons of molasses were also produced.

Production of Crops Other Than Sugar in 1969

	<u>Tons</u>
Tea	3,066
Tobacco	442
Aloe fibre	1,294
Potatoes	5,761
Onions	2,037

Livestock:

The livestock industry produces only for the local market. The production value amounts to approximately \$3.6 million. The main products are milk, meat and eggs.

Mining:

The main minerals used in Mauritius are basalt and coral sand (calcium carbonate).

In 1970 a petroleum prospecting licence was granted to Texaco Mauritius Ltd. for prospecting in off-shore areas.

Electricity:

The Central Electricity Board, a para-statal organization, operates two oil-fired and six hydroelectric generating stations with a combined effective capacity of 43 MW.

Electricity sales have been increasing by 6.5% a year from 1966 to over 102 million kwh in 1969.

7. Overall economic development strategy and policy:

The Government's policy in the past years was directed towards the increase of the output, the redistribution of incomes and the creation of additional employment.

8. Regional Co-operation (international trade agreements):

Mauritius became a member of GATT in September 1970 and maintains a liberal trade policy towards non-Commonwealth countries although according a preferential tariff treatment to most imports from other Commonwealth countries.

Mauritius also belongs to the new International Sugar Agreement which came into force in January 1969 for an initial five-year period. The main objectives of this agreement are

to raise the level of international trade in sugar, especially in order to increase the export earnings of developing countries, to maintain stable and reasonable prices, to increase the sugar consumption and to bring about a balance between the world sugar production and consumption.

9. Systems for planning and plan implementation:

10. Problems encountered through the previous plan period:

The major social, economic and political problem is unemployment due to the rapid growth of the population. About 20% of the labour force is more or less wholly unemployed or in a job which does not yield a sufficient income to support a family.

Land has become increasingly limited over the last 20 years. While the acreage in the cane cultivation increased between the late fifties and the late sixties by 5%, the total labour force increased at about 30%.

Agricultural output could not be raised considerably due to technical limitations.

Returns to labour in livestock production are very low, since it is only a part-time occupation. There is also excessive fishing in the 250 km² of lagoons surrounding Mauritius.

There is scarcity of natural resources on the island.

Since the size of the domestic market is limited, manufacturing industries had only a limited growth potential and the utilization rate of the plants is low. Only very few of the new industries were able to achieve full utilization, even on a one-shift basis.

Value added in most cases is fairly low due to the lack of local materials and components. This lack also has resulted in heavy demand for working capital. On average, working capital requirements almost equal the average fixed capital requirements.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1971-1975

1. General goals and objectives:(i) Planned growth:

	<u>1969</u>	<u>1975</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	29.7	47.9	8.3%
Total GDP/capita (\$)	191.2	254.0	4.9%
Population (000)	800	895	1.9%
Manufacturing GDP (million \$ U.S.)	23.8	42.8	10.3%
Total GDP (million \$ U.S.)	153.0	227.0	6.9%
Manufacturing % of total GDP	16	19	
Fixed domestic capital investment (million \$ U.S.)		56.7*	
Exports (million \$ U.S.)	65.7	83.7	4.1%
Imports (million \$ U.S.)	62.6	99.2	7.9%
Employment (000)	195	276	6.0%

* / Total domestic investment over the plan period 1971-1975.

(ii) Other objectives:

- to reach full employment by 1980;
- to bring about maximum improvements in agriculture and livestock production;
- to promote export-oriented industries;
- to maintain price stability.

2. Strategy and policy:

(i) General:

Employment opportunities will have to be created in the first instance in the income-generating sectors of the economy, i.e. in the manufacturing and invisible export sector.

Land already under cultivation will have to be used more intensively, mainly through increased and more efficient irrigation in the drier areas and through land improvement and improved cultural practices on the smaller holdings.

With regard to sugar, an increase in production and better prices have to be secured, but where better land preparation and irrigation can be provided, agricultural production will be shifted to higher value crops and to more profitable and reliable ones. Thus, the relative importance of sugar in the economy will be considerably reduced.

In view of the limitations of the local market, strict performance norms will be required in granting concessions and incentives for additional import-substitution industries.

The following criteria will generally be applied:

- that local consumption is by itself sufficient to ensure commercial feasibility of the project at a lower or equal price to the consumer;
- that the accumulated foreign exchange balance by the end of a period of 5 years (or such longer period that the special character of a project may justify, but maximum 10 years) is shown to be positive, taking into account all foreign exchange costs, including the import content of locally used components and services (e.g. import content of electricity);
- that the direct and/or indirect employment effect and/or the forward and backward linkage effect is significant.

Efforts to develop increased foreign trade activities for industries now producing only for the domestic market will be encouraged by the Government for the following two categories of industries:

- existing industries having a production capacity considerably in excess of an anticipated increase in the local demand during the plan period and therefore needing to export in order to achieve full utilization of the capacity and normal production costs;
- existing labour-intensive industries, at present manufacturing mainly for the local market, where a traditionally high level of workmanship may be attractive to buyers in developed countries either in the form of ready, high value products or in the form of components. This includes industries such as: clothing, footwear, wood and rattan furniture, made-up articles of aloe fibre (carpets, mats, wall-covering), boat building, heavy engineering, light engineering, commercial vehicle bodies, leather products and toys.

For industries now enjoying incentives granted for the purpose of promoting import-substitution manufacturing, the Government will consider export incentives after other incentives have run their stipulated duration. It would also be possible to renegotiate incentives.

Export processing zones have been established in 1970 throughout the island to encourage the development of export-oriented industries. In these zones manufacturers will benefit from a unique package of incentives and facilities.

(ii) Manpower and productivity:

Education:

The basic education at the primary and secondary levels will be directed towards the following objectives:

- free education for all children at the first level (primary);

- opportunity of secondary and vocational training for at least 60% of the boys in the age group 15-19 by 1980;
- a balanced curriculum which will include technical subjects and integrated science at all levels;
- technical and vocational orientation of the education at the secondary and post-secondary levels;
- equality of the educational opportunity for all according to their educational potential.

The following improvements have to be undertaken in certain parts of the educational system:

Teacher training: The two model primary schools attached to the Teachers' Training College will be improved. An institute of education attached to the university and under the general authority of the university, but closely associated with the Ministry of Education, will be established. The institute will be responsible for the following:

- secondary teacher training;
- in-service training course for teachers;
- seminars on pedagogical topics;
- advice to the Teachers' Training College in the training of primary school teachers;
- preparation for a Mauritius examination syndicate;
- advice on educational mass media programmes;
- studies for a curriculum reform;
- administrative training for principals of secondary schools, primary inspectors and head teachers;
- research.

Post-secondary education: The university's budget will expand at 4.5% per annum. For further education abroad the Government will grant six English scholarships at an average cost of \$3,850 per year and per person.

Overseas educational and training opportunities will be rationalized to fit into the manpower requirements of the development plan.

Most of the vocational training will be on-the-job training.

- 153 -

Two new institutions for training will be founded:

- An institute for training people in various crafts and managerial skills will be established in 1971-1972.
- A hotel and catering training school will be opened in 1972.

Capital Investment of
the Ministry of Education 1971-1975

(000 \$ U.S.)

	<u>Total expenditure 1971-1975</u>
Schools' programme	2,143
Extension to state secondary schools	326
Extension to state senior primary schools	104
Two Government secondary schools	369
Loans to private secondary schools	1,264
Equipment and furniture for new primary schools	89
Training programme	999
University development	693
Institute of education	126
Industrial technical training institute	180
Mahatma Gandhi institute	585
Travail-Pour-Tous-Programme	1,080
Total	<u>3,727</u>

University Development 1971-1975

(000 \$ U.S.)

	<u>Total expenditure 1971-1975</u>
Porters lodge plus stores	9
Technology II (including food technology)	400
Teaching block	45
Agriculture II	234
Canteen and common room	4
Total	<u>692</u>
Institute of education	126

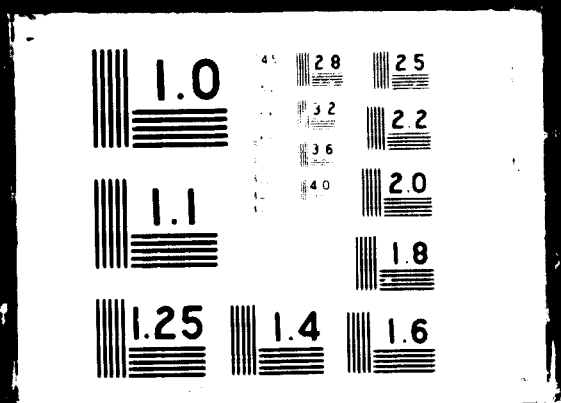


22.7.74

4 OF 10

DO

4997



Planned Growth of Employment and Productivity

<u>Activities</u>	<u>Employment</u>		Average annual growth rate	Productivity per person (\$ U.S.)	Average annual growth rate
	1969	1980			
Agriculture (including livestock, forestry and fisheries)	76,100	109,000	3.3%	488	524 0.7%
Mining and quarrying	400	1,000	8.7%	450	540 1.7%
Manufacturing	25,000	67,000	9.4%	950	1,156 1.8%
Processing agricultural crops for export	6,600	6,600	-	2,128	3,109 3.5%
Other manufacturing industries	18,400	60,400	11.4%	529	943 5.4%
Large establishments	9,000	44,400	15.6%	900	1,188 2.5%
Small establishments	9,400	16,000	5.0%	216	270 2.1%
Construction and public works	13,000	30,000	7.9%	706	801 1.2%
Electricity, water and other public utilities	1,300	3,000	7.9%	4,154	4,154 -
Transport and communications (harbour, posts and telegraphs, etc.)	13,400	20,000	3.7%	1,370	1,980 3.4%
Trade	19,800	28,000	3.2%	817	1,273 4.1%
Services (including health, education, banking, insurance, etc.)	32,100	50,000	4.1%	1,087	1,469 2.7%
Tourism					
Central and local Government general administration	13,900	17,000	1.8%	569	614 0.7%
Total	195,000	325,000	4.7%	785	1,017 2.4%

*/ Average 1967 - 1969.

(iii) Investment and capacity utilisation:Capital Expenditure of the Ministry of Commerce and Industry
for the Plan Period 1971-1975

(000 \$ U.S.)

	Total expenditure 1971-1975	Phasing of expenditure			
		1971-1972	1972-1973	1973-1974	1974-1975
Trade and industrial promotion	180	45	45	45	45
Investigation and market research	108	27	27	27	27
Administrative block for the export processing zone	27	27	-	-	-
Standard bureau	108	-	-	108	-
Total	423	99	72	180	72

Industrial investment of the private sector will amount to \$47.7 million for the total plan period, but is partly included in the public sector programme. Thus the two very capital-intensive projects, the fertilizer plants and possibly the cement plant will absorb the major share during the first two years.

Institutions for investment in manufacturing:

The Industrial Development Bank was established in 1964 to channel official funds into productive enterprises. Almost 20% of the Government's capital grants during the years 1966-1970 were allocated to the bank to finance such enterprises with the view of providing employment for the growing labour force and in diversifying to reduce Mauritius' almost entire dependence on sugar.

Promotion of investment in manufacturing:

The extent and the form of continued concessions and protection for industries grown under shelter will be revised. Among the incentives are the following:

- protective import duties for infant industries;
- suspension of import duties on materials and equipment identifiable as being exclusively for industrial use and not locally available;
- rebates of import duties on other raw materials and components for specified industries;
- customs' drawbacks of import duties on materials and components subsequently re-exported in finished products;
- import quota protection of up to 80% of the market;
- initial depreciation allowance of 40% on plants and 20% on industrial buildings;
- "tax holiday" of 5 years if the benefit of the initial depreciation allowance is utilized and 8 years with normal depreciation allowances;

- 157 -

- exemption from an income tax on dividends;
- long-term loans at favourable rates from the Development Bank for up to 50% of the long-term capital employed;
- lease of standard factory buildings at subsidized rates;
- free repatriation facilities.

(iv) Interconnections between growth factors:Export-Import Ratio

<u>1969</u>	<u>1975</u>
1.05	0.84

3. Data bases and projections:

A Data Collection Group will be formed within the Ministry of Commerce and Industry. Its main functions will be:

- to supply market and other non-technical information to the Project Formulation and Evaluation Group (a group to be also established within the Ministry of Commerce and Industry) and to other Government agencies concerned;
- to supply market information, including comprehensive trade statistic surveys to existing and prospective projects.

Balance of Payment Projections for 1975

(million \$ U.S.)

Exports (f.o.b.)	83.7
Imports (f.o.b.)	99.2
Net trade balance	-15.5
Net services	-3.1
Net transfers	-1.3
Net long-term capital movements	23.0
Other capital, errors and omissions	-
	<hr/>
	3.1

4. Planned growth of industrial sector:(i) Planned growth of manufacturing sector:

The total value added of the manufacturing sector, excluding sugar and tea processing, will amount to \$20.7 million, i.e. a gross output of \$43.7 million at the end of the plan period. These figures are based on a projected average productivity of \$1,040 per employee in establishments employing 10 or more people and of \$250 in small establishments.

Additional Investment in Manufacturing 1971-1975
(million \$ U.S.)

Existing establishments (manufacturing for the local market and employing 10 people or more)	0.9
New import replacement establishments (employing 10 people or more)	19.2
New establishments (employing less than 10 people)	1.3
New export manufacturing establishments (employing 10 people or more)	18.4
	<hr/>
	39.8

Additional Employment in Manufacturing 1971-1975

	<u>Number of employees</u>
Existing establishments (manufacturing for the local market and employing 10 people or more)	500
New import replacement establishments (employing 10 people or more)	1,800
New establishments (employing less than 10 people)	2,000
New export manufacturing establishments (employing 10 people or more)	5,700
Sub-total	<hr/> 10,000
Processing agricultural crops for export	6,600
Total	<hr/> 16,600

Growth of Exports by 1975

(million \$ U.S.)

	<u>1969</u>	<u>%</u>	<u>1975</u>	<u>%</u>
Processed agricultural produce, including sugar and tea	64.1	98	69.5	83
Other manufacturing	1.6	2	14.2	17
Total	65.7	100	83.7	100

Growth of Imports by 1975

(million \$ U.S.)

	<u>1969</u>	<u>%</u>	<u>1975</u>	<u>%</u>
Food	23.6	} 61	49.7	50
Other consumer goods	14.4			
Intermediate goods	16.2	26	22.5	23
Capital goods	8.4	13	27.0	27
Total	62.6	100	99.2	100

(ii) Planned growth of electricity:

The demand for electricity is expected to increase at about 10% per annum during the plan period. Accordingly, the volume of sales will have grown to about 175 million kwh by 1975, requiring a generation of about 211 million kwh.

Electricity Sales in 1975

	<u>Million kwh</u>
Industrial sector	67
Commercial sector	37
Domestic sector	58
Royal navy	13
Other	1
	<u>176</u>

Rural extension programme:

By 1975 the total rural areas will be electrified due to the programme of rural electrification undertaken by the Central Electricity Board.

(iii) Planned growth of mining:

Since coral sand is the only mineral of major economic importance which is available in abundance, a special study on its potential use for industries will be undertaken.

(iv) Priority of sectors:

First priority has to be given to the increase of the manufacturing sector which is, together with the agricultural and livestock industry, the primary income generating sector.

Because of the limited size of the domestic market, manufacturing will be mostly for the export market.

The basis for a substantial development of the manufacturing sector already exists in a labour force well adapted to acquire mechanical skills.

(v) Infrastructure connected with industry:Harbour and shipping:

Prior to the establishment of a long-term development plan, which will result from a part development study and which will include the introduction of new technologies in shipping and cargo handling, the following minimum development is required to meet expected demands during the plan periods:

- extension of the West quay;
- provision of cargo handling equipment on the West quay and other quays;
- access road to the West quay and the Red Sea;
- construction of a shed on the West quay;
- renovation of the Granary elevator;
- construction of a provisional passenger terminal;
- reclamation of the Red Sea, including deepening of the harbour, construction of retaining walls and diversion of the Lataniers river.

Airport and air transport:

Local traffic is expected to increase by 15% per annum and transit traffic at 18% per annum up to 1975.

The airport of Plaisance, as well as the air freight facilities, have to be developed in order to meet future demand. Also the construction of a new airport is considered.

Roads and road transport:

The main road developments that will have to be carried out over the plan period are the entrance roads into Port Louis from the South (2.1 miles) and from the North (3.3 miles) and the extension of the motorway near the main urban areas and villages to the airport of Plaisance (18 miles) or a new motorway to the North should it be decided to construct a new airport in the North.

To provide unimpeded access to Port Louis (and for through traffic) and to link Port Louis with the airport will require the construction of 25 miles of additional motorways at an estimated cost of \$10.8 million. The cost of other road constructions and improvements, including urban roads, will amount to \$18 million over the next decade.

The total investment in road transport will amount to \$45 million for the next 10 years.

Post and telecommunication:

The telephone density can be expected to increase to 3% of the population by 1990. Between 350 and 450 new lines per year will be needed in the near future. 6 new automatic exchanges will be built in the next 3 years. New post offices will be constructed over the next 4 years at Curepipe, Rose Hill and Vacoas.

Capital Expenditure of the
Ministry of Works 1971-1975

(000 \$ U.S.)

	<u>Total expenditure 1971-1975</u>
Domestic water supply	10,707
Mare-aux Vacoas	4,478
Piton du Milieu	3,728
Port Louis	270
General	356
Industrial water supply	493
Water and other research	367
Irrigation	1,015
Domestic sewerage	6,544
Port Louis sewerage scheme	2,747
Plaines Wilhelms sewerage scheme	2,070
Sewerage of industrial estates	1,440
Sewerage of small industrial areas	90
Other	197
Major roads	5,454
Southern entrance road to Port Louis	684
Northern entrance road to Port Louis	1,710
Airport access road	2,880
Minor road works	180
Other public works	517
Total	<u>23,222</u>

Capital Expenditure by the
Ministry of Communications 1971-1975
(000 \$ U.S.)

	<u>Total expenditure 1971-1975</u>
Civil aviation	7,496
Marine services	9,086
Telecommunication	3,500
Meteorology	296
Posts and telegraphs	225
Total	20,603

The private sector will invest \$7.2 million for the transport and communication development during the plan period, but a part of this amount is already included in the public sector programme.

(vi) Relationships with non-industry sectors of the economy:

Agriculture:

In general crop yields will be substantially increased through a better irrigation system.

A replanting programme for sugar-cane is being launched in 1971.

Sugar production will increase at 2% per annum over the next 10 years.

The output of the tea crop can be expected to reach 30 million lbs, i.e. \$10.8 million by 1980.

The output of crops other than sugar and tea will reach \$10.8 million per annum by 1980.

Livestock:

The demand for livestock products will grow at 5% per annum, thus it is hoped that the livestock production will double over the next 10 years in order to be able to supply two thirds of the domestic market.

Capital Expenditure of the
Ministry of Agriculture 1971-1975

(000 \$ U.S.)

	<u>Total expenditure 1971-1975</u>
Crop development	9,435
Expansion and improvement of crop extension services	141
Extension of crop research	260
Livestock development	1,860
Expansion and improvement of livestock extension services	163
Fisheries development	568
Administration and general	67
Total	12,494

The private sector will invest \$17 million for agriculture, including livestock, fisheries and forestry, but a part of this amount is already included in the public sector programme.

5. Planned industrial projects:

For the following projects, which have been approved economically feasible, project profiles have been elaborated:

- 165 -

<u>Project</u>	<u>Annual capacity</u>
Cement	100,000 tons
Cement pipes and cement poles	5,000 tons
Asbestos cement sheets	5,000 tons
Nylon fishing nets and fishing lines	8 tons
Fishing hooks	15,000 hooks
Metal tins and containers	25 tons
Agricultural implements	60 tons
Domestic electrical appliances	30,000 pieces
Fluorescent tubes	20,000 pieces
Electrical accessories	n.a.
Pesticides, insecticides, etc.*	250 tons
Livestock feed**	20,000 tons
Building bricks	50 tons/day
Wheat flour	n.a.
Paper (made from bagasse)	n.a.
Rum, vinegar, mono sodium glutamate, ethyl alcohol and yeast for animal feed (made from molasses)	n.a.
Coffein	5 tons
Nicotin (made from tobacco waste)	2.5 tons
Chemicals and construction material (made from coral sand)	n.a.

* / Project profile not yet elaborated.

** / Expansion of existing plant.

Criteria for the selection of the projects:

- maximization of employment;
- use of local raw materials (coral sand, molasses, bagasse, etc.);
- moderate consumption of electricity and water.

6. Organizational and institutional changes required for industrial plan implementation:

The system of implementation of the 4-year plan will be based on the following components:

Project preparation: Special emphasis has to be laid on a detailed project preparation. Many of the projects which have been included in the plan are not yet adequately prepared for implementation. Immediate work on a detailed design of these projects will be undertaken.

A Central Project Bureau will be established within the Ministry of Economic Planning and Development. This bureau will be responsible for preparing economic, commercial and technical feasibility studies; it will identify projects with most promising opportunities and help prepare ministerial priorities.

Studies will be made on a continuing basis so that they can provide a sound basis for future plans. The bureau will work in close co-operation with the technical staff of ministries; projects for study will be initiated both by executive ministries and by the bureau itself. While a certain level of technical competence will be built up in the establishment of this bureau, it will be essential to engage consultants wherever appropriate.

A physical plan which will set out the framework and criteria for a rational use of land for the urbanization and industrialization will be carried out by a special office to be set up in the Ministry of Housing.

Execution of projects, reporting and evaluation:

Executive ministries will be responsible for the execution of their projects. They will, in consultation with the Central Projects Bureau, determine priorities for their Ministry's projects and new services, leading to annual development budget estimates. They will be responsible for the efficient use of existing assets and services justifying recurrent budget estimates.

The overall responsibility for co-ordination and follow-up of all plan activities will remain with the Ministry of Economic Planning and Development. Quarterly progress reports will be made by field officers of this ministry.

The Committee of Officers in Charge of Ministries, which meets every month under the chairmanship of the Head of the Civil Service, will have the additional function of reviewing the progress on plan implementation and administrative co-ordination for removing administrative bottlenecks as they emerge in plan implementation.

Administrative efficiency and cost consciousness:

Experienced and qualified manpower has to be mobilized and local staff to be trained at the utmost speed in order to guarantee an effective plan implementation. The administrative organization and methods have to be changed.

An Organization and Methods Adviser has already been attached to the Establishment Division. He will look into methods and procedures of transacting Government business with special emphasis on the administrative efficiency, simplification of procedures and cost consciousness. A committee will undertake a review of the Civil Service and will make recommendations on how to make the Government machinery more efficient.

With regard to external assistance, the Aid Co-ordination Section in the Ministry of Economic Planning and Development will be strengthened in order to improve external aid co-ordination. It will determine priorities and help ministries in preparing requests for the submission to foreign aid agencies.

A Manpower Planning Unit within the Ministry of Economic Planning and Development will be responsible for local and foreign training arrangements and the determination of priorities amongst the different professions.

The Ministry of Finance will be in charge of the mobilization of resources and of keeping the recurrent costs within reasonable limits.

Para-statal organizations:

The following para-statal organizations will operate on an autonomous and commercial basis under the auspices of a parent ministry:

- Central Electricity Board;
- Tea Development Authority;
- Central Water Authority;
- Development Works Corporation;
- Port Authority;
- Central Housing Authority;
- Mauritius Housing Corporation;
- Sugar Planters' Mechanical Pool;
- Mauritius Broadcasting Corporation.

Annual plans:

The Government intends to prepare annual plans which would include an analysis of the economic situation, a comprehensive presentation of policies and advance recruitment planning.

The preparation of annual plans will require a comprehensive economic survey of the economy and a more efficient collection of statistical data.

A permanent Economic Advisory Committee comprising the Ministry of Economic Planning and Development, the Ministry of Finance and the Bank of Mauritius will help in the co-ordination of preparing annual plans, particularly in co-ordinating the development budget, recurrent budget and the investment programme of public agencies. The committee will also consider all ad hoc matters arising during the year.

The private sector:

The resource potential, as well as the enterprise in the private sector, must be fully utilized for achieving planned targets. The Government will encourage private enterprises within the framework of the plan. It is important to find foreign investors who will start business either on their own or in partnership with local entrepreneurs or in partnership

with the Government. This will be one of the chief aspects of planning for industrialization.

A close liaison will be created between the Government and the private sector through the establishment of a Sectoral Relations Committee. This committee will exchange views between the private sector and Government ministries connected with the private sector. It will help in elaborating private sector investment plans.

Economic Committee of the Cabinet:

The Prime Minister is the chairman of this committee which is directly connected with the Ministry of Economic Planning and Development and consists of all ministries representing economic interests. The Secretariat is provided by the Ministry of Economic Planning and Development.

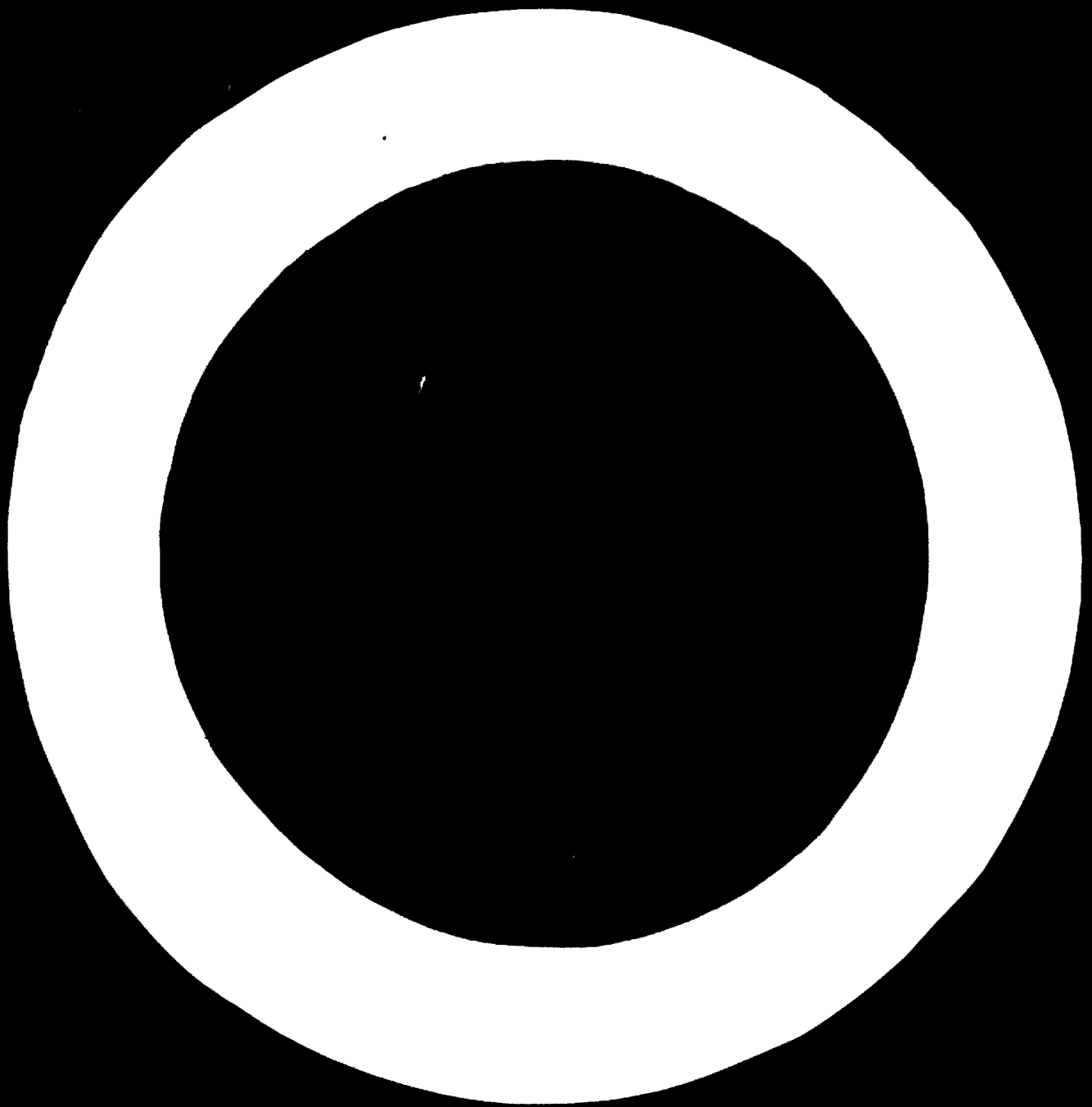
The committee takes decisions on vital issues such as the level of taxation, current consumption, resource mobilization, foreign aid, investment priorities, land reforms, etc.

Public participation:

Development committees have already been established at the district and municipal level in order to discuss planning and implementation problems. The Government will strengthen the channels of communication between the central Government agencies and the public ones.

7. Problem areas particular to the industrial sector:

The major problem that has to be faced is that the scope for further establishment of import-substitution industries is rather limited. The small size of the local market justifies only the establishment of very small production units.



SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF NEPAL: 1970 - 1975 */

- I. General background information
- II. Summary of the industrial development plan

*/ The Fourth Plan 1970-1975, The National Planning Commission, Singha Durbar, Kathmandu, July 1970, 404 pp.

BIBLIOGRAPHY

T. Hagen: "Nepal", Berne, 1961.

P.P. Karan and W.M. Jenkins: "Nepal, a Cultural and Physical Geography", University of Kentucky Press, 1960.

E.B. Mihaly: "Foreign Aid and Politics in Nepal", OUP, 1965.

D.R. Regmi: "Modern Nepal", Calcutta, 1961.

Background notes: Department of State Publications, Washington, 1971.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Nepal:

<u>Area:</u>	Total area	141,400 km ²
	Agricultural area	22,260 km ²
	Forests	45,325 km ²
	Other	73,815 km ²
<u>Major cities:</u>		<u>Population in 1969</u>
	Kathmandu	195,260
	Patan	135,230
	Bhadgaon	84,240
<u>Other data:</u>	Number of telephones (1969)	5,400 of which 5,000 in Kathmandu
	Number of vehicles	14,430
	Electricity production (1969)	60 million kwh
<u>Exchange rates:</u>	(1970)	<u>Rupee equivalent</u>
	<u>Unit</u>	
	US dollar	10.125
	Pound sterling	24.11
	Swiss franc	2.39
	French franc	1.83
	German mark	2.77
	Italian lira (100)	1.62

2. Population:

<u>Age group</u>	<u>Distribution</u>			
	(000)			
	<u>1966</u>	<u>%</u>	<u>1970</u>	<u>%</u>
0-14	4,142	40.3	4,375	39.6
15-59	5,590	54.4	6,072	55.0
60 and over	545	5.3	610	5.4
Total	10,277	100.0	11,057	100.0

The average annual increase of the total population during the plan period amounted to 1.8%.

With regard to employment data, only vague estimates are available based on the 1961 population census.

	<u>1970</u> (000)	<u>%</u>
Active population	4,932	44.6
Unemployed population	6,125	55.4
Total	<u>11,057</u>	<u>100.0</u>

93.8% of the active population were dependent on agriculture.

Education:

32% of the children at primary school age have been provided with primary education. The number of primary schools has reached 7,000.

The number of high schools and middle-level schools amounted to 444 and 534 respectively. About 18% of primary school enrolled pupils attended secondary schools.

The literacy rate was estimated at 11.8% at the end of the Third Plan.

Several technical and vocational training centres were opened with a view to providing middle and lower-level technical training facilities within the country.

Middle and Lower Manpower up to 1969-1970

	<u>Middle level</u>	<u>Lower level</u>
Civil engineering (overseas)	432	-
Mechanical engineering	-	372
Electrical engineering	-	150
Chemical and related technology	-	216
Woodworking technology	-	419
Textiles, garments and footwear	-	419
Textile technology	-	739
Agriculture	-	1,637
Forestry	231	360
Health	98	286
Home science	-	154
Total	<u>761</u>	<u>4,333</u>

3. GDP:

	<u>1966</u>	<u>1970</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	n.a.	n.a.	n.a.
Total GDP/capita (\$)	56.3	58.6	1.0%
Population (000)	10,277	11,057	1.9%
Manufacturing GDP (million \$ U.S.)	n.a.	n.a.	n.a.
Total GDP (million \$ U.S.)	578.6	648.2	2.9%
Manufacturing GDP as % of total GDP	n.a.	n.a.	n.a.

GDP structure:

Agriculture accounted for about 66% of the total GDP.

Production of Some Major Industries

	<u>Unit</u>	<u>1966</u>	<u>1970</u> *	<u>Average annual increase</u>
Jute	Million tons	17,300	15,000	-3.6%
Sugar	Million tons	9,900	24,000	24.7%
Cigarettes	000 pieces	636,000	2,000,000	33.1%
Shoes	Pairs	29,800	50,000	13.7%
Stainless steel	Kilogramme	232,000	750,000	34.2%
Leather	Kilogramme	59,000	160,000	28.2%
Textiles	Metres	1,293,500	2,500,000	17.9%
Tea	Kilogramme	13,600**	18,000	14.9%
Iron goods	Tons	1,300**	5,000	96.0%

*/ Figures represent estimation made on the basis of data available up to December.

**/ Figures for 1968.

4. Macro-economic indicators:Money supply:

Index: 1967 - 183
1970 - 271
1963 = 100

Consumer price index:

1964 - 100
1969 - 127

GDP:

1966 - \$579 million
1970 - \$648 million
Average annual growth 2.9%

Government finance and expenditure:Expenditure During the Third Plan
(million \$ U.S.)

	1966 <u>actual</u>	1970 <u>estimate</u>	<u>Plan target</u>
Transport, communication, power	11,562	91,690	86,450
Agriculture and rural development	5,628	49,106	37,297
Industry	2,146	9,632	12,350
Social services	4,437	27,583	28,899
Miscellaneous	2,214	29,566	6,916
Total	<u>25,987</u>	<u>207,579</u>	<u>171,912</u>

5. Industrial products and technology - main manufacturing industries:6. Industry - related resources and sectors:Forests:

The total forest land is state-owned. Valuable timber trees which grow in the southern part of the country constitute the major source of timber exports.

Main crops and livestock:Targets of Agricultural Production and Progress

(000 tons)

<u>Crop</u>	<u>1966</u>	<u>1969*</u>	<u>Average annual increase</u>	<u>Target 1970</u>	<u>Average annual increase</u>
Food grains	3,358	3,598	2.3%	3,776	2.8%
Paddy	2,207	2,322	1.6%	2,368	1.6%
Maize	856	900	1.6%	918	1.4%
Wheat and barley	175	256	13.4%	425	22.9%
Millet and other	120	120	-	65	0.6%
Cash crop	291	n.a.	n.a.	390	n.a.
Sugar-cane	192	188	-0.7%	252	14.9%
Oil-seeds	51	57	3.8%	60	3.7%
Tobacco	9	6	-14.5%	24	17.7%
Jute	39	n.a.	n.a.	54	7.3%

*/ Data for 1970 not available.

Livestock Development During the Plan

	<u>Plan target 1966-1970</u>	<u>Actual increase 1966-1969</u>	<u>% of the target</u>
Pigs	12,756	1,040	8.2
Sheep	3,000	48	1.6
Poultry	1,100,000	193,577	17.6

Minerals and mining:

A total of \$2 million was allocated for the development of mineral resources. A geological survey was undertaken to find basic minerals essential for industrial development.

Fuels and power:

Wood is the only fuel available in quantity. It was proposed to increase the generating power capacity at 60,000 kw and \$25.7 million were allocated for this purpose. Later the revised third plan fixed the target at 36,000 kw. At the end of 1969 the total power supply had been increased by 19,960 kw.

Targets have not been reached due to the non-availability of power from projects like Trisuli, Kosi and Gandak.

Transport:

Progress Achieved in the Road Construction During the Plan
(Kilometres)

	Target 1966-1970			1966			1970			Total 1966-1970		
	(1 + 2)	(3)		(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Highway	580	412		27	43	244	66	19	99	318	172	279
Main road and other	178	195		24	26	6	13	-	132	87	58	176
Total	758	607		51	69	250	79	19	231	405	230	455

- (1) - Pitch roads
(2) - Gravel roads
(3) - Fair-weather roads

Length of Roads in Kilometres

	<u>All-weather</u> *	<u>Fair-weather</u>	<u>Total</u>
Target of the Third Plan	758	607	1,365
Progress achieved during the Third Plan period	635	455	1,090
% of the target	80	78	79

* / including pitch and gravel roads.

\$6.9 million were allocated for the development of civil aviation. The projects started during the Second Plan were completed. The airport of Kathmandu was converted into an international one. Airports in Biratnagar, Janakpur and Bhairahwa were changed into all-weather airports.

Main exports:

Jute and jute products accounted for 71.3% of total exports. From 1966 to 1969 the total value of exported jute and jute products amounted to \$24.9 million.

7. Overall economic development strategy and policy:8. Regional co-operation:9. Systems for planning and plan implementation:

During the Third Plan, most of the central offices were surveyed in respect to their organization, working procedure and efficiency. Some recommendations of the Administrative Reform Commission have been implemented.

The survey on the Civil Records Office has been completed.

In several fields training has been provided to officers.

10. Problems encountered through the previous plan period:

The main problems encountered are the following:

- lack of infrastructure, especially in the field of road, rail and air transport;
- regional disparity between the Himalayan and hilly region and the tropical plains of the Terai region;
- high density of the population in the hilly region (60% of the total population) with less than one third of the total cultivated area having a food deficit and the Terai region having a food surplus;

- 181 -

- substantial raw material deposits for establishing a mineral-based industry where not explored;
- a domestic market for a large-scale industrial production was lacking due to the low purchasing power of the people;
- high rate of unemployment;
- lack of skilled manpower and highly-qualified managers, etc.;
- lack of relevant statistical data.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1975

1. General goals and objectives:(i) Planned growth:

	<u>1971</u>	<u>1975</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	n.a.	n.a.	n.a.
Total GDP/capita (\$)	59.9	64.9	1.9%
Population (000)	11,248	12,156	1.9%
Manufacturing GDP (million \$ U.S.)	n.a.	n.a.	n.a.
Total GDP (million \$ U.S.)*	674.1	788.7	4.0%
Manufacturing % of total GDP	n.a.	n.a.	
Consumption (million \$ U.S.)	n.a.	n.a.	n.a.
Exports (million \$ U.S.)	n.a.	n.a.	n.a.
Imports (million \$ U.S.)	n.a.	n.a.	n.a.
Employment (000)	n.a.	n.a.	n.a.

* / Estimate.

(ii) Other objectives:

The fundamental objectives of the plan are as follows:

- to achieve an annual growth of GDP at 4%;
- to develop transport, communication, electricity, etc.;
- to expand and diversify international trade;
- to secure economic stability by controlling the price level;
- to make effective use of manpower and to control population growth.

2. Strategy and policy:

(i) General:

In the industrial sector the following policies will be implemented:

- Internal capital resources will be mobilized through the use of fiscal policies.
- Industries related to agriculture will be emphasized to secure maximum utilization of agricultural products.
- The expansion of transport and communication will have to be linked to the need of the various projects.
- The limited capital resources will be concentrated on some important sectors capable of yielding a considerable increase in production.
- Efforts will be made to create growth centres for selected regions having the necessary geographical, economic and social background.

The following measures will be enacted to increase investment in the private sector:

- The Nepal Industrial Development Corporation (NIDC) will be better organized and made more effective in its functioning.
- Current industrial policies and priorities will be reviewed to encourage industry.
- The need for various kinds of trained manpower for future industrial development will be assessed and training programmes and facilities will be worked out.
- Existing financial institutions will be encouraged to advance loans to the landlords willing to sell their land to tillers in order that they invest in selected industries.
- Financial institutions will be encouraged to help in expanding the industries already established.
- Policies and programmes for the development of cottage and small-scale industries will encourage the selection of a few industries suitable for different regions.

Foreign trade will be expanded and diversified based on the production of exportable goods from agro-based industries.

The effective implementation of a land reform programme will enable peasants to increase agricultural production.

Small industries will be developed and extended and co-operatives will be strengthened on a viable economic basis.

(ii) Manpower and productivity:

Distribution of the Population by Age Group in 1975

<u>Age group</u>	<u>000</u>	<u>%</u>	<u>Increment during the plan (000)</u>
0- 4	1,810	14.9	159
5-14	2,921	24.0	197
15-59	6,737	55.4	665
60 and over	688	5.7	87
Total	<u>12,156</u>	<u>100.0</u>	<u>1,108</u>

In the age group 15-59, regarded as labour force, it will be essential to create at least jobs for about 525,000 persons; otherwise the employment ratio will be even lower than in the Third Plan.

Estimated Manpower Requirement During the Plan Period

	Available	Middle-level manpower		Skilled	
	higher level manpower	required	available	manpower lower level	
Engineering	771	2,313	1,079	1,234	34,695
Civil	401	1,203	635	568	
Mechanical	108	324	324	-	
Electrical	111	333	120	213	
Other	151	453	-	453	
Health	460	920	322	598	1,840
Education	308	-	-	-	-
Commerce	994	-	-	-	-
Agriculture	505	800	-	800	3,200
Forest	119	288	288	-	380
Veterinary	65	130	-	130	260
Total	3,222	4,451	1,589	2,762	40,375

Education

The plan aims at providing primary education to 45% of the children attending primary schools; to achieve this target 7,000 additional classes and a similar number of teachers will have to be provided.

It is expected that secondary school enrolment will be raised to 20% of the primary school enrolment.

The literacy rate will be raised to 15%.

Estimated Development Expenditure
(million \$ U.S.)

Primary education	0.4
Secondary education	2.4
Model school education	1.0
Adult education	0.8
Higher education	2.8
Teachers' training	2.8
National Vocational Training Centre	1.0
Physical education	0.05
Examination improvement programme	0.1
Scientific education	0.2
Janak Educational Material Centre	0.05
Sanskrit Institute	0.05
Planning, statistics, research	0.03
Total	<u>11.7</u>

(iii) Investment and capacity utilization:

Investment in the Manufacturing Sector
During the Plan Period
(million \$ U.S.)

Public sector:	
Industrial Service Centre	0.4
Improvement of current industries	4.9
New industrial investments	3.8
Industrial districts	1.5
Improvement and research in raw materials	0.05
Industrial training	<u>0.1</u>
Total	10.7

It is estimated that \$25 million will be invested in the private sector. The Nepal Industrial Development Corporation will make available \$ 12 million as a loan to the private sector.

Loans will be provided by the Nepal Industrial Development Corporation for the establishment of new plants in the private sector. It is estimated that the investment figures of the Nepal Industrial Development Corporation will amount to:

<u>Unit</u>	<u>Loans</u> (000 \$ U.S.)	<u>Shares</u> (000 \$ U.S.)
Cement	2,252.6	237.1
Textiles	3,952.0	988.0
Animals	292.2	69.2
Plywood	429.3	-
Other (tourism, paper, etc.)	4,940.0	-
Total	11,866.1	1,294.3

Estimated Breakdown of the Total Capital Investment
by Sectors

(million \$ U.S.)

Public sector	222.3
Panchayat [*] /sector	11.9
Private sector	55.3
Total	289.5

Total Expenditure Required for the Fourth Plan

(million \$ U.S.)

Public sector	251.9
Panchayat [*] /sector	11.9
Private sector	86.0
Total	349.8

*/ The Panchayat system is a partyless democratic government system established by the King in 1962.

Allocation of Expenditure in the Public Sector
(million \$ U.S.)

Transport and communications	103.7
Agriculture, land reform, irrigation, forestry and botany	64.5
Industry and commerce	45.4
Panchayat, education, health and other social services	36.8
Statistics	1.5
Total	<u>251.9</u>

Expenditure and Sources of Government Sectors
During the Plan

	<u>Million \$ U.S.</u>	<u>%</u>
Expenditure	<u>467.3</u>	<u>100.0</u>
Regular	213.4*	45.7
Development	253.9	54.3
Sources	<u>467.3</u>	<u>100.0</u>
Domestic sources	<u>320.1</u>	<u>68.5</u>
Revenue	275.7	59.0
Domestic loan	14.7	3.2
Deficit financing	19.8	4.2
Deficit	9.9	1.2
Foreign aid	<u>147.2</u>	<u>31.5</u>
Grants	127.5	27.3
Loans	19.7	4.2

* / including \$2 million to increase the share capital of the Nepal Industrial Development Corporation and of the Agriculture Development Bank.

Sources of Development Expenditure

	<u>Million \$ U.S.</u>	<u>%</u>
Domestic sources	<u>106.7</u>	<u>42.0</u>
Savings from revenue	32.6	12.8
Additional revenue (changed tax rates)	29.7	11.7
Domestic credit	14.7	5.8
Deficit financing	19.8	7.8
Deficit	9.9	3.9
Foreign aid	<u>147.2</u>	<u>58.0</u>
Aid	127.5	50.0
Loans	19.7	7.8
Total	253.9	100.0

(iv) Interconnections between growth factors:

The incremental capital output ratio was 2.3 during the Third Plan and will rise to 2.5 during the Fourth Plan.

3. Data bases and projections:

In the last year of the previous plan the organizational structure of the Central Bureau of Statistics has been reorganized. In all 75 districts of the country branch offices have been established which are collecting local statistical data. The data is analyzed in the central office.

During the Fourth Plan the following main programme will be carried out:

- a decennial population census, including information on the labour force;
- a decennial agricultural census;
- every two years a periodic survey regarding the increase in population.

In addition an animal resource survey, an internal trade survey, a family survey, annual estimates of GDP, etc. will be undertaken.

Modern computing machines and relevant equipment for the analysis and publishing of collected data will be installed in the central office.

The estimated outlay for the plan period amounts to \$1.5 million.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

The production capacities of sugar, cigarettes, agricultural implements, leather and shoes, brick and tile factories, jute and tea industry will be increased.

Cottage and village industries will be further developed to help to meet domestic demand and to reduce imports. On the other hand, the development of export-oriented village industries based on forest, agricultural, animal and mineral resources will be emphasized. The total amount of investments in the cottage industry is estimated at \$2.2 million.

(ii) Planned growth of electricity:

During the plan period the power development projects are mainly the following:

- construction of power plants and transmission lines;
- small hydroelectric projects;
- diesel installations;
- surveys.

- 191 -

Proposed Investment in Power Development

(million \$ U.S.)

Construction of:	13.3
Sunkosi project	5.7
Kankai project	6.4
Babai project	1.0
Kuzekhami project	0.2
Transmission lines	5.4
Gandak Hetauda (132 kw)	3.1
Parasi Butwal (33 kw)	0.3
Kathmandu valley electrification	0.5
... area	0.3
Kankai Biratnagar (66 kw)	0.3
Kankai Bhadrapur (66 kw)	0.2
Siraha Janakpur (33 kw)	0.5
Kathmandu Birgunj (66 kw)	0.1
Pokhara Khairani (33 kw)	0.1
Small hydroelectric projects	0.5
Dhankuta	0.1
Baglung	0.2
Jumla	0.2
Diesel power installations	1.8
Surveys	1.2
Total	22.2

A total of 40,300 kw will be generated during the plan.

Estimated Power Demand and Supply in Kilowatt

	1970-1971		1974-1975		Average annual increase	
	<u>Demand</u> *	<u>Supply</u>	<u>Demand</u> *	<u>Supply</u>	<u>Demand</u>	<u>Supply</u>
Biratnagar**	5,120	3,000	9,520	8,880	16.8%	31.2%
Kathmandu valley**	13,700	21,540	25,400	36,540	16.6%	14.0%
Nepalgunj	630	100	5,200	600	69.0%	56.5%
Total	19,450	24,640	40,120	46,020	19.8%	16.9%

*/ Approximate maximum demand.

**/ and adjoining area.

(iii) Planned growth of mining:Estimated Investment for the Geological Survey
and Mining Development

(million \$ U.S.)

Geological survey	<u>4.0</u>
Petroleum investigation (western Terai)	
Preliminary petroleum prospecting (western Terai)	
Gas investigation (Kathmandu valley)	
Phosphate exploration	
Mapping	
Other surveys	
Research and preparation of reports	
Integrated geological mineral survey	<u>2.2</u>
Aeromagnetic survey of Nepal	1.2
Exploration of deposits in western Nepal	1.0
Preliminary work on the exploration of deposits in eastern Nepal	0.02
Projects regarding detailed investigation of mineral deposits and feasibility studies	<u>1.2</u>
Investigation and exploration of magnesite and copper deposits of Kharidungha and Bhutkhola	0.05
Exploration of copper deposits and investigation in cement grade limestone	0.1
Exploration of chemical grade limestone and pegmatite	0.1
Investigation of phosphate deposits and other	0.1
Field equipment and machinery	0.2
Laboratory and research	0.5
Feasibility studies of mineral-based industries	0.2
Technical assistance to industries in the private sector	0.01
Total	<u>7.4</u>

(iv) Priority of sectors:

Priority will be given to the development of transport and communication, since the lack of adequate facilities during the previous plan period did not allow for an accelerated industrial and agricultural development process.

Agricultural development will be of second priority. However, a rapid increase in agricultural production will be essential for the improvement of the standard of living of the majority of people and for the provision of raw materials required by various industries.

The third place, in order of priority, is occupied by industry. Existing industrial plants will be expanded and projects started during the Third Plan will be continued.

(v) Infrastructure connected with industry:

During this plan priority will be given to the expansion and improvement of roads and air transport.

The improvement and construction of foot tracks, mule and jeep tracks and of suspension bridges is also envisaged in the plan.

Investment in the Road Development

	<u>Million \$ U.S.</u>	<u>%</u>
Completion of current projects	32.6	40
Remaining portion of the Mahendra highway (western sector)	20.1	25
Growth axis roads	9.1	11
Interdistrict and district level roads	3.1	4
Urban roads	1.6	3
Roads to be completed after the feasibility survey	3.0	4
Foot, mule and jeep tracks	0.9	1
Suspension bridges, etc.	4.8	6
Road improvement	2.2	2
Miscellaneous	3.0	4
Total	<u>80.4</u>	<u>100</u>

Investment in the Transport and
Communication Sector

	<u>Million \$ U.S.</u>	<u>%</u>
Transport	99.8	96.2
Roads	80.3	77.5
Civil aviation	16.9	16.3
Nepal Transport Corporation	0.3	0.2
Nepal Engineering Institute	2.3	2.2
Communication	4.0	3.8
Telecommunication	3.7	3.5
Postal services	0.3	0.3
Total	<u>103.8</u>	<u>100.0</u>

The Nepal National Transport Corporation plays the leading role in the operation of the traffic; the following projects will be carried out during the plan period:

- extension of the truck and bus services on highways;
- extension and expansion of railway lines (if justified by the feasibility study);
- operation of the trolley bus service.

The Nepal Engineering Institute will continue to provide training in civil and electrical engineering, telecommunication and civil aviation. Of the total estimated investment of \$2.3 million, \$1.8 million will be contributed by the United Nations Special Fund and the remainder will be borne by the Government.

For the implementation of the projects in the field of civil aviation \$16.8 million have been allocated for the plan period. The Asian Development Bank (ADB) will provide additional loans of \$6 million and technical assistance of \$346,000 for the development of airports in Kathmandu, Pokhara, Simra, Biratnagar and Bhairahwa.

The Royal Nepal Airlines Corporation will invest \$12.2 million to execute the envisaged development programme during the plan period:

	<u>Million \$ U.S.</u>
Purchase of one medium-sized jet plane and of three STOL aircraft	9.9
Pilot training simulator, workshop equipment and tools	1.2
Landing equipment	0.05
External power unit	0.03
Inter-com equipment	0.03
Surface transport - 10 buses and 5 cars	0.1
Other constructions in the central airport building	0.2
Branch office building	0.1
Training for pilots and engineers	0.3
Investigation for the purchase of planes	0.01
Working capital	0.3
Total	<u>12.2</u>

Telecommunication:

In this field the existing wireless service station will be strengthened and the communication service will be established and extended. The following projects are envisaged:

- continuation of the Kathmandu teleprinter service;
- establishment of a telecommunication training centre and services;
- installation of automatic and non-automatic local telephone services;
- completion of wireless service stations;
- establishment of a trunk telephone line Kathmandu - Raxaul and of an automatic telephone exchange in Birgunj.

Postal Services
Projects Envisaged for the Plan

<u>Projects</u>	<u>1969-1970</u> <u>(number)</u>	<u>1970-1975</u> <u>(number)</u>	<u>Total</u> <u>number</u>
Sub-post	90	5	95
Branch post	196	50	245
Additional post	153	550	703
Postal line	37	25	62
Mail-van	-	-	-
Commodity store	-	-	-
Regional office of the commodity store	-	2	2
Commodity workshop	-	1	1
Building construction	35	30	65
Training development	-	-	-
Philatelic office	-	-	2
Regional return letter office	-	2	2

The health service programme of the country will include preventive measures, curative services, health education and training. Priority will be given to preventive measures. The curative services will be improved and the training of middle-level health personnel will be emphasized to meet increasing demand.

Estimated Expenditure During the Plan Period

(million \$ U.S.)

Public health offices	1.8
Preventive health services (against malaria, leprosy; tuberculosis control, etc.)	9.3
Hospitals	0.9
Training (nurses training school, auxiliary health workers school, etc.)	1.0
Miscellaneous	1.8
Total	<u>14.8</u>

Drinking water and sewage system:

The Government will expand these services during the plans; the estimated expenditure will amount to \$3.7 million.

(vi) Relationship with non-industry sectors of the economy:Agriculture:Production Target of Cereal Crops

(000 tons)

	<u>Estimated production 1969-1970</u>	<u>Target 1974-1975</u>	<u>Average annual growth</u>
Paddy	2,354	2,599	2.0%
Maize	918	980	1.4%
Wheat (including barley)	297	580	14.4%
Millet and other	120	120	-
Total	3,689	4,279	3.0%

Production Target of Cash Crops

(000 tons)

	<u>Estimated production 1969-1970</u>	<u>Target 1974-1975</u>	<u>Average annual growth</u>
Sugar-cane	200	300	8.4%
Jute	48	65	6.2%
Tobacco	7.5	10	5.9%
Oil-seeds	58	65	2.3%
Total	313.5	440	7.0%

Target of the Horticultural Production

(000 tons)

	<u>Estimated production 1969-1970</u>	<u>Target 1974-1975</u>	<u>Average annual growth</u>
Fruits	266	276	0.8%
Potatoes	335	435	5.4%
Vegetable seeds	0.02	0.04	14.9%
Total	601.02	711.04	3.4%

Production Target of Livestock Products

	<u>Unit</u>	<u>Estimated production 1969-1970</u>	<u>Target 1974-1975</u>	<u>Average annual growth</u>
Meat	Tons	<u>46,100</u>	<u>53,475</u>	<u>3.0%</u>
Buffaloes	Tons	19,000	23,200	4.1%
Pigs	Tons	4,200	5,600	5.9%
Sheep	Tons	2,700	3,100	2.8%
Goats	Tons	2,900	3,100	1.4%
Fowls	Tons	7,300	8,475	3.0%
Other	Tons	10,000	10,000	-
Milk	000 litres	<u>582,600</u>	<u>717,000</u>	<u>4.2%</u>
Buffaloes	000 litres	400,000	500,000	4.6%
Cows	000 litres	178,000	212,000	3.5%
Other	000 litres	4,600	5,000	1.5%
Milk products	Tons	<u>9,037</u>	<u>12,075</u>	<u>6.0%</u>
Ghee and butter	Tons	9,000	12,000	5.9%
Cheese	Tons	37	75	15.1%
Eggs	000 pieces	<u>180,000</u>	<u>227,000</u>	<u>4.7%</u>

The total expenditure on the agricultural development programme for the plan will amount to \$18.5 million.

5. Planned industrial projects:

In the private sector the following plants are probably to be established in the interests of:

	<u>Annual production capacity</u>
<u>Import substitution</u>	
Textile plant	20 million yards
Flour mill	9,000 tons
Iron pipe plant	3,000 tons
Soap plant	2,000 tons
Sugar plant	1,000 tons of sugar-cane crushing/day
Brewery	1.8 million bottles (11 oz.)
Slaughter house and meat refining plant	25 buffaloes, 25 pigs and 130 chickens/day
Leather refining plant	11,000 hides
Tobacco refining plant	12,000 tons
Cigarette plant	1,000 million sticks
<u>Export promotion</u>	
Jute plant	10,000 tons
Fruit canning and preservation plant	14,000 bottles of jam
Straw-board plant	40,000 bottles of squash
Ghee refining plant	6,000 tons
Ginger refining plant	300 tons/day
Resin and turpentine plant	1,500 tons/day
	10,000 tons of resins
	24,000 tons of turpentine
<u>Creation of basic industry</u>	
Cement plant	65,000 tons
Iron and steel plant	20,000 tons
Brick and tile plant	40 million pieces
Rice mill	24,000 tons
Bakery industry	3,6 million loaves
Feed mixing plant	50,000 tons
Pulp and paper mill	15,000 tons
Saw mill	1 million cubic feet
Plywood plant	19.2 million square feet
Paint and varnish plant	2,000 tons
Glass plant	20 tons/day

The Government will set up industrial districts equipped with basic facilities for the production of paper, fertilizers and cement; in addition, a factory utilizing molasses from the Birgunj sugar factory will be established. The

following programme has been included in the plans:

- to complete the work started in establishing industrial centres at Nepal, Ganj and Dharan;
- to establish another industrial centre either in Butwals or in Pokhara;
- to construct 20 additional buildings at the Balaju industrial district of Kathmandu and to expand the Patan industrial district;
- to complete the preliminary work in establishing one more industrial district in the country based on a feasibility study in the third year of the plan.

Projects for the development of adequate raw materials and arrangements for the evaluation of industrial activities are envisaged for the plan period.

6. Organizational and institutional changes required for industrial plan implementation:

A training programme will be implemented to meet the shortage of trained personnel.

Pre-service and in-service training will be provided to 500 and 200 personnel respectively.

1,200 junior employees will be trained and short-hand and typing courses will be provided.

A mobile training system will be implemented for the training in district and regional offices. Two teams will be sent from the centre and cover about 20 districts; they will also prepare a survey report regarding the organization and management of district level officers.

Organization and working procedures:

Changes will be made in this respect in order to increase the efficiency of the personnel.

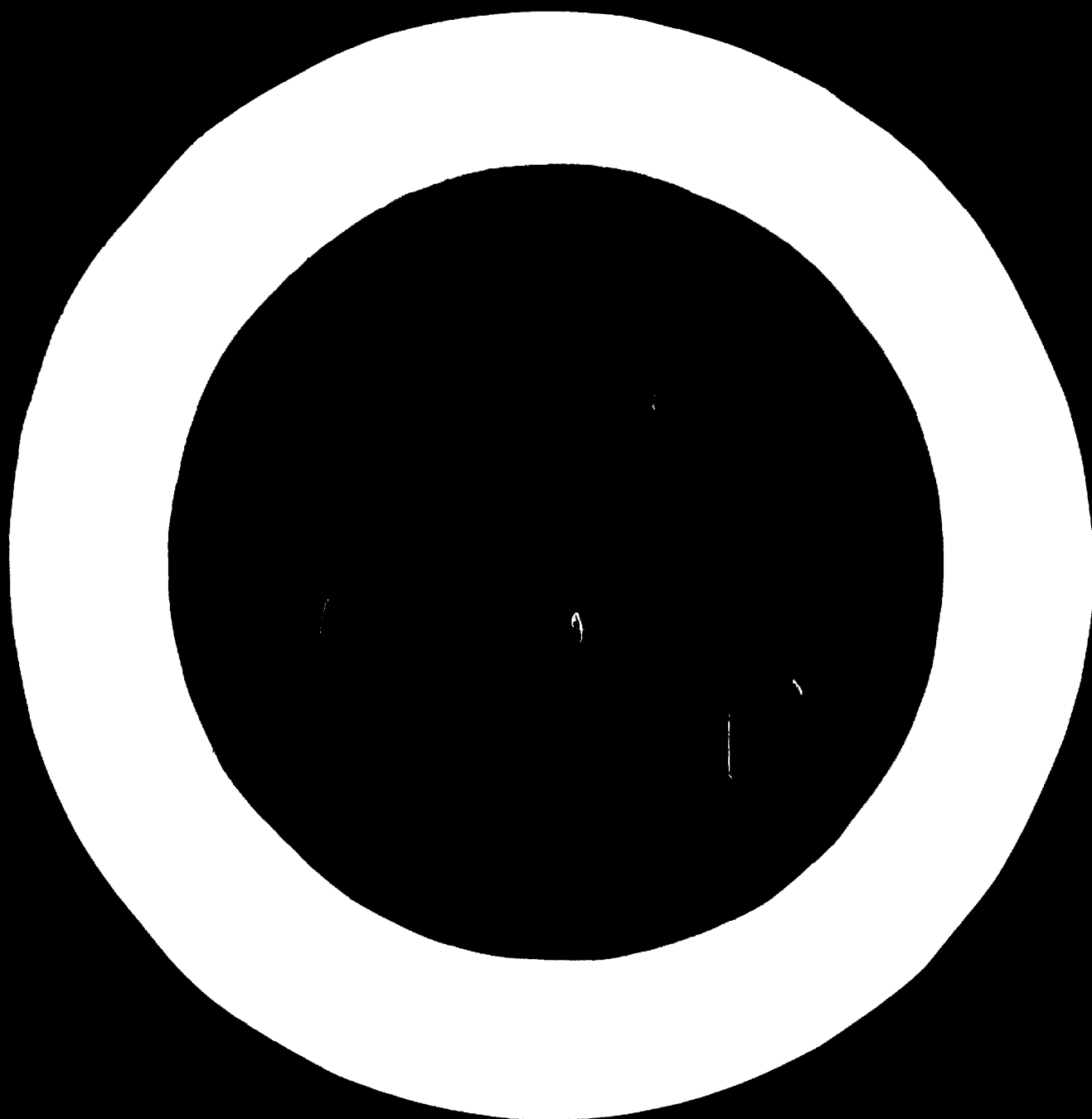
Improvement of the administration will be carried out in accordance with the popular will after investigation of suggestions and recommendations given by specialists, seminars and conferences regarding the administration.

The Civil Service Administration Reform will comprise a job description survey and a career development project; besides, civil service regulations will be reviewed and newly formulated. Provisions for housing, health and educational facilities for civil servants and their dependents will be included in the Civil Service Act.

The total expenditure during the plan is estimated at \$257,000.

7. Problem areas particular to the industrial sector:

The development plan 1970-1975 does not indicate problem areas particular to the industrial sector; the aim of the plan is, however, to overcome all the problems encountered through the previous plan period. The extent to which this will be possible is difficult to estimate in detail at the moment (see also Part I, Chapter 11).



SUMMARY OF THE INDUSTRIAL DEVELOPMENT
PLAN OF NIGERIA: 1970 - 1974^{*/}

- I. General background information

- II. Summary of the industrial development plan

^{*/} Second Four-Year National Development Plan, 1970-1974,
Federal Ministry of Information, Printing Division,
Lagos, 1970, 343 pp.

BIBLIOGRAPHY

- R. Collis: Nigeria in Conflict, Lagos, 1970.
- M. Crowder: A Short History of Nigeria, New York, Praeger, 1966.
- G.K. Eicher and C. Liedholm (editors): Growth and Development of the Nigerian Economy, Michigan, Michigan State University Press, 1970.
- The Economist: Nigeria Starts Again - A Survey, 24 October 1970.
- G.K. Helleiner: Peasant Agriculture, Government and Economic Growth in Nigeria, Homewood, Irwin, 1966.
- B.W. Hodder and U.I. Ukwo: Markets in West Africa - Studies of Markets and Trade Among the Yoruba and Ibo, Ibadan, the University Press, 1969.
- I.B.R.D.: The Current Economic Position and Prospects of Nigeria, Washington, 21 January 1971.
- N.A. Lewis: Reflections on Nigeria's Economic Growth, OECD Publication, Paris, 1967.
- Lloyds Bank Ltd.: Economic Report, Nigeria, December 1970 (Export Promotion Section).
- Nigeria Year Book 1971: Lagos, Time Press.
- H.A. Oluwasanmi: Agriculture and Nigerian Economic Development, Ibadan, Oxford University Press, 1966.
- C.C. Onyemelukwe: Problems of Industrial Planning and Management in Nigeria, London, Longmans, 1966.
- Quarterly Economic Review: Nigeria, Annual Supplement 1971, Nos. 1,2,3,4.
- A. Sokolski: The Establishment of Manufacturing in Nigeria, New York, Praeger, 1966.
- Standard Bank: Annual Economic Review "Nigeria", June 1971.
- T. Drawa-Mory: Industrial Growth and Foreign Trade in Four West African Countries - Ghana, Nigeria, the Ivory Coast and Senegal, Pittsburgh, 1969.
- UN: Statistical Yearbook, New York, 1970.
Monthly Bulletin of Statistics, New York, October 1971.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Nigeria:

<u>Area:</u>	Total area	923,737 km ²
	Agricultural area - 31%	286,358 km ²
	Permanent forestry reserves - 10%	92,374 km ²
	Permanent pasture - 15%	138,561 km ²
<u>Major cities:</u>	(1963)	<u>Population</u>
	Lagos	665,250
	Ibadan	627,400
	Ogbomosho	343,300
	Kano	295,432
	Oshogbo	209,000
	Kaduna	149,910
	Enugu	138,460
	Benin	101,000
	Port Harcourt	80,000
<u>Other data:</u>	(1968)	<u>Number</u>
	Motor vehicles (including commercial)	18,784
	Radio sets	1,250,000 (3 million in 1970)
	Television sets	52,526 (55,000 in 1970)
	Telephones	74,760
	Post offices and agencies	1,428
	Annual electricity production (1965-1966)	1,064.22 million kwh
<u>Exchange rates:</u>	(1970)	<u>Nigerian Pound equivalent</u>
	<u>Unit</u>	
	US dollar	0.3571
	Pound sterling	0.8547
	Swiss franc	0.0827
	French franc	0.0646
	German mark	0.0978
	Italian lira (100)	0.0573

2. Population:

	<u>1963</u>	<u>1969-1970</u>
Total population (000)	55,670	64,500
Density	60.26/km ²	69.82/km ²
Annual growth of the population		2.5%

Percentage Distribution of Gainful Occupations 1966-1967

<u>Subsectors</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Agriculture	80.1	62.1	71.7
Manufacturing	6.3	14.0	9.6
Construction	1.1	-	0.6
Commerce	4.9	22.2	12.9
Transport and communications	1.4	-	0.8
Services	5.8	1.7	3.9
Other	0.3	-	0.5
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

About 95% of the Nigerians are employed in the private sector activities (agriculture, commerce, manufacture and construction), considering both wage employment and self-employment.

Education:Number of Schools, Pupils and Teachers in 1966

	<u>Schools</u>	<u>Pupils</u>	<u>Teachers</u>	<u>Teacher/pupil ratio</u>
Primary	14,904	3,025,981	91,050	33.2
Secondary	1,350	211,305	11,644	18.1
Technical	73	15,059	789	19.0
Teacher training	193	30,493	1,837	16.6
University	5	8,600	1,328	6.5

Level of Education 1969-1970 (% of the Population)

	<u>Urban centres</u>	<u>Rural areas</u>	<u>Country</u>
Complete illiterate	33.0	75.0	66.7
With few years of primary education	25.0	12.5	15.0
With completed primary education	19.0	2.0	5.4
With school certificates and above	3.0	0.1	0.7
Permanently literate	20.0	2.0	5.6

Level of Enrolments at Schools in 1966

Primary schools	30%
Secondary schools	3%

Expenditure on education:

During the last plan period a total expenditure of \$127.8 million incurred in the implementation of the Federal and Regional Government's programme in the educational sector which represents 65.2% of the total planned estimate of \$195.4 million.

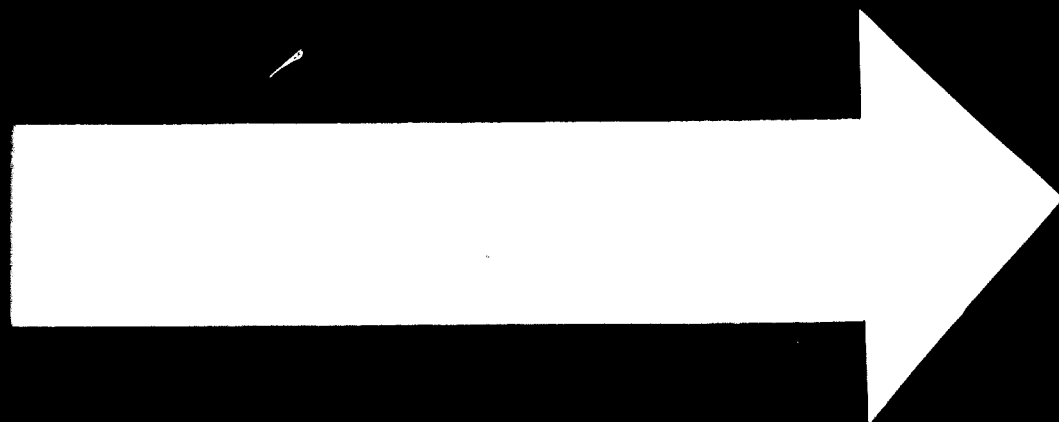
3. GDP:

<u>At current prices</u>	<u>1962-1963</u>	<u>1967-1968*</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	3.91	5.27	6.1%
Industrial GDP/capita (\$)	8.27	10.52	4.9%
Total GDP/capita (\$)	67.86	69.53	0.4%
Population (000)	54,247	61,459	2.5%
Manufacturing GDP (million \$ U.S.)	212.60	323.70	8.7%
Industrial GDP (million \$ U.S.)	448.60	646.30	7.6%
Total GDP (million \$ U.S.)	3,681.06	4,273.00	3.0%
Manufacturing % of total GDP	5.8	7.6	
Industry % of total GDP	12.2	15.1	

*/ The data for 1967-1968 (last year of the last development plan) refer to an abnormal war-time year. They have been adjusted to include activities based on the war-affected areas of the country and are still provisional.

GDP Structure at Current Factor Cost and in Percentages 1963-1968

Sector	1963-1964		1965-1966		1967-1968	
	(million \$ U.S.)	%	(million \$ U.S.)	%	(million \$ U.S.)	%
Agriculture, livestock, forestry and fishing	2,345.30	59.7	2,368.80	54.9	2,398.50	56.1
Mining	78.41	2.0	208.06	4.8	114.25	2.7
Manufacturing and handicrafts	220.95	5.6	269.95	6.2	323.72	7.6
Electricity and water supply	18.20	0.5	22.40	0.6	25.48	0.6
Building and construction	171.94	4.4	225.71	5.2	208.35	4.9
Distribution	534.86	13.6	605.99	14.0	586.95	13.7
Transport	176.14	4.5	162.42	3.8	147.58	3.4
Communications	19.32	0.5	27.44	0.6	23.80	0.5
General Government	147.02	3.7	151.22	3.5	137.50	3.2
Education	105.29	2.7	126.02	2.9	129.93	3.0
Health	21.56	0.5	28.84	0.7	26.88	0.6
Other services	87.09	2.2	112.85	2.6	150.10	3.5
Total	3,926.07	100.0	4,309.70	100.0	4,273.03	100.0

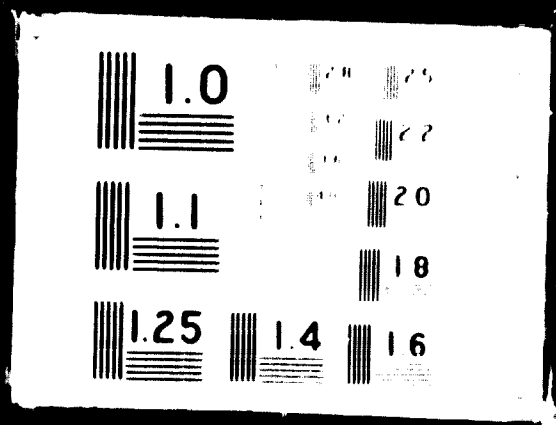


22.7.74

5 OF 10

DO

4997



The year 1963-1964 showed the highest growth rate followed by 1965-1966. 1967-1968 was the worst year with an overall decline of about 5%; apart from "manufacturing and handicrafts", "electricity and water supply" and "other services", the economy's level of activity was consistently lower than in the preceding year.

Investments at Current Factor Prices 1963-1967

<u>Year</u>	<u>Investments</u>		
	<u>Value</u> <u>(million \$ U.S.)</u>	<u>Change</u> <u>in %</u>	<u>Investment/output</u> <u>ratio</u>
1963	495.66	10.6	12.62
1964	546.06	10.2	13.40
1965	655.56	20.0	15.20
1966	679.36	3.7	15.13
1967*	622.79	-8.2	-

*/ The data for 1967 exclude the three eastern states.

4. Macro-economic indicators:

Money supply:

1963 - \$ 374.68 million
1968 - \$ 464.57 million

Prices (consumer index, lower income group): 1963 = 100.0
1966 = 115.9
1967 = 111.4
1968 = 112.6
1969 = 123.8

GDP:

1962-1963 - \$3,681.06 million
1967-1968 - \$4,273.00 million
Average annual growth 3.0%

Total Value of Exports and Imports
(million \$ U.S.)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Exports	737.33	780.45	666.76	578.27	896.39
Imports	-770.98	-717.93	-626.02	-540.98	-696.42
Balance	-33.65	62.52	40.74	37.29	199.97

Balance of Payments
(million \$ U.S.)

<u>Transactions</u>	<u>1965</u>	<u>1967</u>	<u>1969*</u>
Visible trade **			
Exports (f.o.b.) (including re-exports)	737.33	668.72	899.75
Imports (c.i.f.)	750.80	611.60	647.16
Balance of trade	-13.47	57.12	252.59
Visible net transactions	-178.10	-311.12	-383.37
Balance of goods and services	191.57	254.00	130.78
Net transfer payments			
Private	-18.76	-12.60	+2.80
Official	+26.32	+34.16	+19.60
Balance on transfer payments	+7.56	+21.56	+22.40
Balance on current accounts	-178.38	-232.43	-108.37
Net capital transactions			
Private	103.61	144.22	85.69
Official	81.21	27.72	3.92
Balance on capital accounts	184.82	171.94	89.61
Balance on current and capital accounts	+6.44	-60.49	-18.76
Net errors and omissions	+26.88	-33.88	+30.52
Monetary movements, change in reserves (-) indicates an increase and (+) indicates a decrease	-33.32	+94.37	-11.76

*/ Provisional.

**/ Merchandise trade figures shown here may differ from the trade statistics in other tables because of coverage and valuation adjustments.

5. Industrial products and technology - main manufacturing industries:

Over the last decade industry has moved from the periphery of the country's growth mechanism to a potentially dominant position as an import engine of economic transformation. After the war, the reconstruction period offered an opportunity for the nation to correct past lapses in the management of the industrial sector and put the nation's industrial programme on a stronger and more rational basis. Local industries accepted the imposition of import restrictions which was necessary after the crisis. Import-substituting manufactures were given a big boost, and by the end of 1968 the index of the industrial production for the rest of the country outside the eastern states had, in some cases, surpassed the 1966 level. Export-oriented manufactures continued to expand their production. The industries which were adversely affected by the war were limited to building materials and transport equipment.

Main Enterprises in the Manufacturing Sector
(million \$ U.S.)

	<u>Value added</u>	
	<u>1963</u>	<u>1967</u>
Food (meat, dairy products, fruits, grain sugar, tobacco)	30.16	44.86
Beverages (including soft drinks)	28.48	33.02
Vegetable oil-milling	9.57	20.22
Textiles	11.17	38.30
Garments	0.25	2.86
Footwear	1.51	3.78
Furniture and fixtures	2.04	1.74
Glass products and pottery	0.05	0.14
Paints	1.01	1.65
Bricks and tiles	0.28	0.34
Cement and concrete products	9.58	8.79
Basic industrial chemicals and petroleum products	8.03	19.71
Electrical equipment	0.33	1.23
Basic metals and metal products	8.06	17.00
Motor vehicle assembly (including bicycle assembly)	1.82	2.24
Other manufactures	41.44	46.71
Craft	57.12	62.73
Total	210.86	305.32

6. Industry - related resources and sectors:

Forests:

10.12% of the total land area are covered with a permanent forest estate; many of them do not yet enter into the money economy and if so at limited degrees only. Out of the 600 tree species in Nigeria it is estimated that only about 100 are

usable and out of this figure only about 30 are being commercially exploited (5% of the known tree species). The main products are timber, firewood and poles. The volume of marketable timber in the country has been estimated at 70.75 million m³; the removal of industrial woods probably is over 1.42 million m³ annually of which approximately 50% is exported. This yields about \$19.6 million of foreign exchange annually and an approximately equal amount is realized within the country. However, Nigeria has been experiencing a general stagnation of the forestry output for the past decade. Less than 25% of the removals were regenerated.

Production of the Principal Agricultural Commodities*
(000 tons)

<u>Commodity</u>	<u>1965-1966</u>	<u>1966-1967</u>	<u>1967-1968**</u>	<u>1968-1969**</u>
Ground-nuts	977	1,026	684	764
Cocoa	165	263	234	185
Cotton seed	127	148	79	162
Beniseed	23	16	13	13
Soya beans	19	15	9	4
Palm-oil	130	32	4	-
Palm kernels	415	28	190	-

*/ As measured by marketing board purchases.

**/ Excluding the three eastern states.

Nigeria is the world's largest exporter of ground-nuts mainly produced in the northern part of the country by small farmers. The commodity is a key foreign exchange earner.

Nigeria is the world's second largest exporter of cocoa with almost 20% of the world trade. Approximately 95% of Nigeria's cocoa is produced in the western state where there are about 350,000 cocoa farmers. There is now the danger of a progressive decline in the total production because over 50% of the existing acreage are nearing the end of their economic life.

There are about 182,000 ha of rubber, of which about 80% are in small holdings cultivated by about 100,000 producers. The rubber plantations account for about 20% of the total production. The quantity and quality of the average production is low.

The palm-oil production and industry have been virtually stagnant in Nigeria over the past two decades. Cultivated wild palms are little yielding and difficult to harvest. However, the great importance of the palm-oil production is derived from its simultaneous use as a basic food and as an export crop.

In 1961 the agricultural export accounted for 89% of all exports and for 66% of the total foreign exchange earnings. In recent years petroleum has given a great boost to non-agricultural exports; the latter rose from 11% in 1961 to 35% in 1965 when new activities brought the petroleum industry to a standstill in 1967 and 1968; the contribution of agricultural exports to the total foreign exchange earnings rose to 62% in 1967 and to 73% in 1968. With the resumption of the activity in the oil industry, its relative contribution to the foreign exchange earnings is falling again; nevertheless, agriculture continues to be a major foreign exchange earner.

Livestock:

	<u>Number</u>
Cattle	11.0 million
Sheep	7.5 million
Goats	21.5 million
Pigs	0.7 million
Poultry	66.0 million

Minerals and mining:

Nigeria is richly endowed with mineral resources (one of the richest countries in Africa). Excluding petroleum, natural gas, coal and lignite, the main resources are tin, columbite and hafnium bearing zircon. There has also been the production and export of gold, tantalum, lead, limestone and marble. During the last plan period, mining has been in the hands of private enterprises (mainly foreign-owned private companies). The actual capital expenditure in this sector was only 33% of the total planned expenditure (including petroleum); it was used for geological surveys, offices, buildings (Ministry of Mines and Power) and for the expansion of the School of Mines in Jos.

Monthly Average Production of Mineral Resources
(metric tons)

	<u>Tin</u> <u>(concentrates)</u>	<u>Tin</u> <u>(metal)</u>	<u>Coal</u> <u>(000)</u>	<u>Crude petroleum</u> <u>(000)</u>
1964	738	741	58.2	496
1965	808	790	61.7	1,128
1966	807	841	53.3	1,750
1967	791	773	16.9	1,401
1968	817	833	-	594
1969	728	748	n.a.	2,250
1970	663	672	5.1	4,458

Fuels and power:

Nigeria is one of the leading world oil producers. Crude oil production rose from 2.3 million barrels in 1958 (when the production started) to 152.4 million in 1966. As a result of the war the production went down to 116.5 million barrels in 1967 and to 51.5 million in 1968. As the war moved away from the oil producing areas, production rose again substantially and by 1969 it was approaching the pre-war level. By March 1970 Nigeria had become the second largest oil producer in Africa and the tenth in the world.

Prior to 1965, all the crude oil produced in the country was exported. Then the first oil refinery in Port Harcourt was completed with a capacity of 38,000 barrels a day, and part of the production was retained for local processing. The import of petroleum products fell rapidly from \$51.8 million in 1964 to \$10.6 million in 1966.

Production of natural gas:

The production of natural gas, closely associated with the crude oil production has contributed to the development of the electricity production in Nigeria. The power stations at Afam and Ughelli principally utilize gas. Prior to the commissioning of the Kainji Dam, gas was the cheapest fuel source for the power generation by the Electric Corporation of Nigeria (ECN).

Coal:

Coal had played a significant role in the development of the economic infrastructure and is now an ailing industry suffering from a demand deficiency; the principal users (Nigerian Railway Corporation and the Electric Corporation of Nigeria) are switching to better and cheaper fuel sources. Production has been declining for the past decade; with the crisis it passed from 630,126 tons in 1966 to 94,563 tons in 1967; there was no production at all in 1968. The major problem now is to find new export outlets and industrial uses.

Electricity:

The generation of electricity prior to December 1968 was more or less the monopoly of the Electricity Corporation of Nigeria (ECN). The only other producer was the Nigerian Electricity Supply Corporation supplying the requirements of the Jos tin mines. The total installed capacity in the country was 184 MW in 1961-1962 and rose to 647 MW in 1968-1969.

The capital expenditure during the six-year period of the plan for the electric sector was \$265 million split between the Electricity Corporation of Nigeria, \$117 million, and the Niger Dams Authority, \$148 million. Between 1968 and 1970 further capital expenditure on the dam occurred bringing the total expenditure on the dam to \$195.5 million. Apart from the hydroelectric aspects of the dam, a system of locks has been provided to enable the by-pass of the dam and improve navigation on the Niger.

Transport:

Existing Roads 1965-1968
(kilometres)

<u>Year</u>	<u>Bituminous</u>	<u>Earth/gravel</u>	<u>Total</u>
1962	11,115	61,160	72,275
1968	15,286	73,692	88,978

Tonnage of Goods Moved by Road to and from the Apapa Port

<u>Year</u>	<u>Imports</u>		<u>Exports</u>	
	<u>000 tons</u>	<u>% of total moved by road</u>	<u>000 tons</u>	<u>% of total moved by road</u>
1961-1962	369	53	344	43
1967-1968	636	68	771	56

Number of Railway Engines on Stock

<u>Type</u>	<u>1962-1963</u>	<u>1964-1965</u>	<u>1967-1968</u>
Mainline			
Steam	203	191	191
Diesel	43	43	72
Shunting			
Steam	50	49	49
Diesel	10	12	17
Rail cars			
Steam	-	-	-
Diesel	2	2	2
Total	<u>307</u>	<u>297</u>	<u>331</u>

Nigeria is served by 12 airports which in runway length and instrumentation fall far below international standards. Even the airport of Lagos is served by grossly inadequate temporary terminal buildings and facilities and its runways are still below standard. The impact of the civil war was also important (destruction of installations and lack of proper maintenance).

The Nigerian Port Authority is in charge of the main ports of the country. It operated 17 berths in Lagos, 8 in Port Harcourt, 3 in Calabar and one in both Warri and Koko. The two major ports of Lagos and Port Harcourt are fully equipped with modern facilities including transit sheds and warehouses. The two ports handled about 70% of the pre-war imports and exports of the country. However, the port of Lagos has been a major bottle-neck in the movement of goods because of the lack of proper forward planning and of maintenance arrangements, staff control and supervision.

Main Exports 1965-1969
(million \$ U.S.)

<u>Commodity</u>	<u>1965</u>	<u>1969</u>
Ground-nuts	105.9	100.5
Ground-nut oil	28.0	31.1
Ground-nut cake	14.8	14.0
Cocoa	119.6	147.3
Palm kernels	74.2	27.1
Rubber	30.5	26.9
Raw cotton	9.2	9.5
Cotton seed	5.0	2.8
Palm-oil	38.1	1.1
Tin metal	41.7	38.9
Petroleum crude oil	190.7	380.8
Timber and plywood	21.6	14.6
Hides and skins	13.2	11.8
Total major commodities	<u>692.5</u>	<u>806.8</u>
Other commodities	45.4	89.6
Total domestic exports	<u>737.9</u>	<u>896.4</u>

Main imports:Imports by Standard Groups 1965-1969
(million \$ U.S.)

<u>Commodity group</u>	<u>1965</u>	<u>1969</u>
Food and live animals	64.51	58.43
Beverages and tobacco	5.88	2.23
Crude materials other than fuels	18.46	16.07
Mineral fuels, lubricants and related materials	48.58	43.77
Animal and vegetable oils and fats	0.49	0.54
Chemicals	56.54	85.11
Manufactured goods	252.07	201.59
Machinery and transport equipment	258.79	205.09
Miscellaneous manufactured articles	57.51	37.56
Commodities and transactions	8.40	46.02
Total	<u>771.23</u>	<u>696.42</u>

7. Overall economic development strategy and policy:

The rates of growth in per capita income are not direct operational targets as they do not constitute an end in themselves.

8. Regional co-operation:

Nigeria is a member of the West African Regional Community established in Monrovia in April 1968.

Nigeria is also a member of the Organization of the African Unity and participated actively at various conferences and subregional meetings held in the frame of the Economic Commission for Africa.

Nigeria participates in co-operative commodity arrangements such as the African Ground-nuts Council and the Cocoa Producers' Alliance.

Efforts have been made during the first national development plan to harmonize the country's development policies with those of the countries surrounding the major river and lake bassins in West Africa; thus Nigeria is one of the four member countries of the Lake Chad Basin Commission (Cameroon, Chad and Niger being the remaining three) which was established in 1964 with the aim of promoting the economic development and social well-being of the basin area. The Commission has sponsored three general programmes:

- an inventory of water resources in the Chad Basin;
- a survey of the Chad Basin water resources;
- a road link between Nigeria, Chad and Cameroon.

Joint pilot irrigation projects are also carried out besides specific Nigerian projects in the sector (setting up of a cattle ranch, irrigation of the Yobe River Basin, the South Chad irrigation project, fisheries research, extraction of pulp and paper from the abundant growth of papyrus, etc.).

Nigeria participated actively in the River Niger Commission composed of nine riparian states: Cameroon, Chad, Dahomey, Guinea, Ivory Coast, Mali, Niger, Nigeria and Upper Volta. The Commission is entrusted with the task of encouraging, promoting and co-ordinating studies and programmes concerning the conditions of the navigability and the agricultural and industrial exploitation of the waters of the River Niger basin.

With the completion of the Kainji Dam and the improvement of the navigational works at several points on the river stretch, it should soon be possible to open the land-locked countries of Niger and Mali to merchant vessels and to set up another transit route through Nigeria.

9. Systems for planning and plan implementation:

The planning system in Nigeria changed many times due to the political situation and the outbreak of the national crisis in 1966. At that moment the existing institutions (the National Economic Council and the Joint Planning Commission) became moribund. In March 1966 the National Planning Advisory Group was established to advise the Government on economic development. The group's activities lapsed with the renewed political crisis of July 1966.

A new planning machinery has taken shape in 1967 after the creation of twelve new states in the place of the four old regions. The context of national planning and plan co-ordination had changed radically:

- Most State Governments set up Planning Committees to serve as clearing houses for proposals from various agencies in the states.
- The Federal Ministry of Economic Development regularly convened meetings of senior planning officials. This Conference of Planners had to work out the format and criteria for the preparation and selection of the states' and federal programmes and projects.

For the post-war reconstruction the Government decided that the Supreme Military Council should provide the best forum for harmonizing at the intergovernmental level the major development questions affecting the future of the economy:

- A Joint Planning Board has been established to harmonize and co-ordinate the economic policies and development activities of the Federal and State Governments and their agencies and to examine in detail all aspects of economic planning and make recommendations to the Supreme Military Council or the respective State Governments.
- The former Economic Planning Unit of the Ministry of Economic Development and Reconstruction serving the conference of planners is being expanded into a Central Planning Office staffed with a cadre of professional planners outside the general pool of administrators. It will serve the Joint Planning Board.
- In addition to the meetings of the Commissioners responsible for planning at the federal and state levels an Economic Advisory Committee is to be established with the membership of senior officials of the Economic Ministries, the universities and the private sector. The Committee will advise the Federal Government on planning, fiscal matters and harmonize the activities of the public and private sectors.

Besides the use of economic policies, institutions required for the achievement of the plan objectives were established, such as the Nigerian Industrial Development Bank (national level), the Northern Nigeria Investment Limited, the Industrial Development Centre (former Northern Region) and the Agricultural Credit Corporation.

In 1969 the creation of a National Advisory Committee on Statistics was approved by the Federal Executive Council to give advice to the Federal Office of Statistics.

In the early part of the first plan period, the Capital Estimates Committee was set up for the control and allocation of resources. It was responsible for the annual review of the plan (annual budgeting), as well as for the reordering of priorities in keeping with the built-in flexibility of the plan.

10. Problems encountered through the previous plan period:

The objectives of the previous plan (1962-1968) were not matched with well prepared projects and policies.

Urban unemployment was becoming a major national problem before the civil war broke out.

The level of indigenous ownership and control was too low.

The conflict between regional aspirations and unified national objectives was becoming a main obstacle for the plan implementation.

The average Nigerian was not identifying himself with the plan; the plan was not adequately reflecting the aspirations of the country.

The crises culminating with the outbreak of the civil war made it impossible for the country to embark on the formulation and design of the second development plan and new schemes. The mobilization of all available resources and the necessity to organize emerging relief supplies made it difficult to maintain existing infrastructures in many vital sectors of the economy.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1974

1. General goals and objectives:(i) Planned growth:

	<u>1969-1970</u>	<u>1970-1971</u>	<u>1973-1974</u>	<u>Average annual increase</u>
Manufacturing GDP/ capita (\$)	6.75	-	11.40	14.1%
Industrial GDP/ capita (\$)	12.93	-	27.26	20.8%
Total GDP/ capita (\$)	71.16	-	89.70	5.9%
Population (000)	64,500	-	71,208	2.5%
Manufacturing GDP (million \$ U.S.)	435.50	-	812.10	16.8%
Industrial GDP (million \$ U.S.)	833.70	-	1,841.50	23.5%
Total GDP (million \$ U.S.)	4,590.00	-	6,387.30	8.6%
Manufacturing % of total GDP	9.5		12.7	
Industry % of total GDP	18.2		30.4	
Consumption (million \$ U.S.)	n.a.	4,185.4	5,555.30	9.9%
Gross fixed domestic investment (million \$ U.S.)	n.a.	994.1	1,187.3	6.1%
Exports of goods and services (million \$ U.S.)	n.a.	1,294.0	1,747.70	10.5%
Employment (000)	n.a.	24,054	27,316	4.3%

GDP at factor cost (current prices).

(ii) Other objectives:

- the reconstruction of facilities damaged by the act of war so as to at least maintain intact the nation's productive capacity;
- the rehabilitation and resettlement of people displaced by the war and of the demobilized Armed Forces personnel;
- the establishment of an administrative service and of an appropriate economic infrastructure, especially in the new States;
- the correction of defective existing public policies in the area of economic development;
- the creation of employment in a significant manner;
- the production of high-level and intermediate-level manpower to satisfy the requirements of the public and private sectors such that the majority of expatriate personnel would be replaced by nationals by 1980 or soon thereafter;
- the study of the economy's resource endowment;
- the promotion of balanced development between the different areas of the country;
- the rapid improvement in the level and quality of social services provided for the welfare of people.

The objectives to be attained by the industrial sector are:

- to promote even development and fair distribution of industries in all parts of the country;
- to ensure a rapid expansion and diversification of the industrial sector of the economy;
- to promote the establishment of export-oriented industries;
- to continue the programme of import-substitution, as well as to raise the level of intermediate and capital goods production;
- to raise the proportion of indigenous ownership of industrial investments;
- to plan and direct the increased exploration and exploitation of the country's resources.

2. Strategy and policy:

(i) General:

(ii) Manpower and productivity:

Some of the main policies in the education sector during the plan period are as follows:

- the formulation of measures to restore and reactivate educational facilities and services disrupted in the war-affected areas;
- development and expansion of technical education according to the needs of the manpower market;
- expansion of teacher training programmes; the emergency teacher training programme recently inaugurated will continue throughout the plan period;
- the programmes of expansion of universities are expected to achieve additional enrolment of 7,000 students by the end of the plan period;
- funds and facilities will be made available for the further expansion of adult education programmes;
- measures will be taken to encourage and support research programmes in the field of education.

Consideration will be given to the early establishment of a Youth Corps to provide pre-vocational and vocational training in agriculture and industry-oriented skills.

Pattern of Total Gainful Occupations 1969-1974

<u>Category</u>	<u>Estimated employment in 1970 (million)</u>	<u>Estimated employment in 1974 (million)</u>	<u>Estimated % increase in employment 1969-1974</u>	<u>% share of employment in 1970</u>	<u>% share of employment in 1974</u>
Agriculture	16.790	17.881	6.5	69.8	65.5
Mining	0.055	0.070	27.3	0.2	0.3
Manufacturing, crafts, etc.	2.930	4.524	54.4	12.2	16.6
Construction	0.136	0.171	25.9	0.6	0.6
Commerce	3.030	3.336	10.1	12.6	12.2
Transport and communications	0.167	0.196	17.3	0.7	0.7
Services	0.946	1.138	20.3	3.9	4.1
Total	24.054	27.316	11.4	100.0	100.0

Labour Market 1970-1974
(million)

<u>Category</u>	<u>1970</u>	<u>1974</u>	<u>Change</u>
Labour force	26.080	28.560	2.480
Unemployment gap	2.030	1.250	-0.780
Gainful occupations	24.054	27.316	3.262
Agriculture	16.790	17.881	1.091
Non-agriculture	7.264	9.438	2.171
Medium and large-scale	0.695	0.905	0.210
Small-scale	6.569	8.530	1.961
Wage employment	1.385	1.790	0.405
Non-agriculture	1.215	1.600	0.385
Agriculture	0.170	0.190	0.020
Medium and large-scale	0.765	0.985	0.220
Small-scale	0.620	0.805	0.185
Small-scale (non-agriculture)	0.522	0.694	0.172
Self account, unpaid households, workers and unpaid apprentices	22.669	25.526	2.857
Agriculture	16.620	17.691	1.071
Non-agriculture	6.049	7.835	1.786

Estimated Wage Employment
Classified by Sectors 1970-1974

	<u>Employment</u> <u>in 1970</u>	<u>% share</u>	<u>Employment</u> <u>in 1974</u>	<u>% share</u>
Agriculture	168,000	12.2	191,000	10.7
Non-agriculture	1,217,000	87.8	1,599,000	89.3
Total	1,385,000	100.0	1,790,000	100.0

Wage policy:

The Government has set up a Wage and Salary Review Commission on the basis of its report, according to which a more appropriate policy for the labour income can be articulated. The tasks of the Commission are the following:

- to review the level of wages and salaries at all levels in the public services, the Statutory Public Corporations and state-owned companies;

- to examine areas in which the rationalization and harmonization of wages and salaries are desirable and feasible as between the public and private sectors;
- to consider the need for establishing a system for ensuring that remunerations in the public services are periodically reviewed and kept in proper national balance;
- to make recommendations to the Federal Military Government.

(iii) Investment and capacity utilization:

<u>Projected Financing of the Capital Formation</u>					
<u>(million \$ U.S.)</u>					
	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Gross domestic saving	376.085	588.630	832.259	1,083.730	2,880.705
Net foreign capital inflow	315.597	283.674	342.201	444.693	1,386.166
Resource gap	302.436	245.029	-3.920	-341.080	202.464
Gross fixed domestic investment	994.118	1,117.333	1,170.540	1,187.343	4,469.336

Total Capital Expenditure on Industries 1970-1974^{*/}(million \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Public sector					
Federal Government	15.227	40.758	36.880	21.534	114.399
State Governments	<u>32.327</u>	<u>36.760</u>	<u>28.485</u>	<u>26.118</u>	<u>126.720</u>
Total public sector	50.584	77.518	65.365	47.652	241.119
Private sector (incorporated businesses)					
Manufacturing	209.465	239.428	282.273	328.759	1,059.925
Construction	<u>12.041</u>	<u>14.000</u>	<u>16.521</u>	<u>18.202</u>	<u>60.765</u>
Total private sector	221.506	253.428	298.794	346.961	1,120.690
Grand total	271.986	330.942	364.155	394.611	1,361.695

*/ The mining sector is not included.

The planned Capital Expenditure Programme of the whole public sector for the four-year plan period is estimated as follows:

	<u>Million \$ U.S.</u>
Nominal Public Investment Programme	2,871.377
Less transfers	<u>104.032</u>
Gross Public Investment Programme	2,767.345
Less probable spill over	<u>583.083</u>
Net Public Investment Programme	2,184.262

This public sector's capital investment expenditure will be financed as follows:

	<u>Million \$ U.S.</u>	<u>%</u>
Budget surplus of the Federal and State Governments	1,260.711	57.7
Operating surplus of public corporations and marketing boards	298.235	13.6
Central Bank and other domestic borrowing	202.464	9.3
External finance	<u>422.850</u>	<u>19.4</u>
	2,184.260	100.0

Financing Non-oil Private Sector Investments of Incorporated Businesses 1970-1974
(million \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Capital Investment Programme	235.78	269.67	317.84	367.68	1,190.98
External capital inflow (non-oil)	56.00	84.01	112.01	154.02	406.05
Corporate capital reserves*	161.30	226.26	287.31	318.68	993.56
Total available finance	217.30	310.27	399.32	472.70	1,399.60
Resource balance	-18.48**	+40.60	+81.48	+105.02	+208.62

* Includes oil and non-oil (mainly unremitted and ploughed back profits of incorporated businesses).

** This resource gap is expected to be financed from the banking system.

While welcoming foreign investors, it is now a firm policy of the Government that Nigerians must have an effective stake in the ownership and management of each venture. Specifically, the Federal Government in conjunction with the State Governments will ensure that certain industries, which are basic ones and of strategic importance to the economy, are effectively controlled by the public sector. Provision is made in the programme to enable the Government to take up a minimum of 55% of the share capital in such industries:

- iron and steel basic complex;
- petrochemical industries;
- fertilizer production;
- petroleum products (especially for local distribution).

In other large-scale industries where a technical partnership with overseas investors is desirable, the Government reserves the right to take 35% of the equity holdings:

- plantation production of traditional cash crops and of basic raw materials for processing industry, such as wheat and sugar;
- food industries;
- forest product industries;
- building materials and construction industries.

Nevertheless, industrial incentives (viz. Pioneer Company Certificates, Duty Relief and Approved User Scheme, Initial and Depreciation Allowances) will continue to be made available to investors in accordance with the industrial priorities' policy.

Financing 57.7% of the public sector programme with a budget surplus will bring the Government to the necessity of maximizing the operating surplus on current accounts by entailing administrative expenses and non-essential recurrent expenditure, as well as by improving the internal revenue collection and tapping additional sources of revenue.

Apart from the Central Bank's credit financing, the other major source of domestic borrowing for the public sector is the National Provident Fund. It is estimated that \$60 million will accrue from this source during the plan period (\$202.5 million from the Central Bank) and from other domestic borrowing.

If the rate of actual foreign aid disbursements turns out not to be as optimistic as envisaged in the plans, the net Central Bank credit will have to be higher. The Government hopes that the external capital aid will take the form of a programme support and sectoral loans instead of the traditional project-tied loans and ad hoc credit arrangements.

While the aggregate financial resources available may be adequate for the investment programme of the sector, the distribution of finance by industrial branches may distort and indeed frustrate the indicative investment programme. It is, therefore, necessary to devise appropriate policy measures to correct this structural "distortion", especially through fiscal changes, monetary management, banking and finance.

(iv) Interconnections between growth factors:

	<u>1970-1971</u>	<u>1973-1974</u>
<u>Foreign assistance</u> GDP	0.06	0.06
<u>Gross savings</u> GDP	0.07	0.16
<u>Gross domestic investment</u> GDP	0.20	0.18
<u>Imports</u> GDP	0.18	0.20

Export* - Import Ratio

1970-1971	0.61
1971-1972	0.59
1972-1973	0.53
1973-1974	0.48

* / Non-oil trade.

Export Growth (Non-oil Trade)
(million \$ U.S.)

<u>1970-1971</u>	<u>1973-1974</u>	<u>Annual growth rate</u>
565.1	637.9	4.1%

Import Growth
(million \$ U.S.)

<u>1970-1971</u>	<u>1973-1974</u>	<u>Annual growth rate</u>
924.1	1,315.3	12.5%

3. Data bases and projections:

During the plan period the newly created National Advisory Committee on Statistics will:

- provide a forum for the review by producers and users of statistical data, of the activities and programmes of the Federal Office of Statistics and other agencies;

- co-ordinate and harmonize these activities and programmes so as to rationalize the collection, processing and distribution of statistics in the country;
- advise the Federal Office of Statistics on questions relating to the scope and format of official statistics and other matters.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

It is expected that during the Second National Development Plan (1970-1974), the contribution of manufacturing to national income will grow at a rate of 15-18% per annum. Capital investment in the public sector industry is, therefore, expected to be over \$241 million. A capital investment of about \$1,060 million in the private manufacturing sector is expected to be undertaken.

Federal Capital Expenditure on Industries 1970-1974
(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Loans to industries in war-affected areas					
Sugar estates and factories	4,200	4,200	-	-	8,400
Palm kernel crushing	336	2,800	4,200	4,200	11,536
Wooden furniture for export	109	700	700	-	1,509
Pulp and paper	56	840	840	-	1,736
Fish trawling and distribution	-	700	2,800	3,500	7,000
Combined fish and shrimps trawling and distribution	47	952	924	-	1,923
Aid to small-scale industries	16	280	252	-	548
Chemical complexes	420	420	420	420	1,680
Nitrogenous fertilizers	39	3,780	3,780	-	7,600
Liquefied petroleum gas	212	6,860	6,860	-	13,932
Single superphosphate	753	1,960	840	-	3,553
Second petroleum refinery	81	420	140	-	641
Salt refinery	1,400	2,800	2,800	-	7,000
Iron and steel	173	980	140	-	1,293
Passenger car assembly	1,400	5,600	5,600	7,000	19,600
Investment in other industries	476	560	-	-	1,036
Industrial development centres	4,200	5,600	5,600	5,600	21,000
Federal Institute of Industrial Research	546	238	84	252	1,120
Industrial Development Consultancy Service	84	448	280	-	812
Industrial Training Fund	210	210	210	210	840
Standard Organization	350	350	350	350	1,400
	14	56	56	-	126
Total	<u>15,122</u>	<u>40,754</u>	<u>36,876</u>	<u>21,532</u>	<u>114,285</u>

Estimated Employment in Selected Occupations in the
Medium and Large-scale Industry*

<u>Occupation group</u>	<u>Estimated employment</u>		<u>Employment</u>
	<u>1970</u>	<u>1974</u>	<u>increase</u> <u>1970-1974</u>
Directors, managers	17,039	21,122	4,083
Engineers	4,460	5,841	1,381
Doctors	2,100	2,700	600
Accountants, auditors	1,379	1,801	422
Architects, town planners	136	190	54
Surveyors	320	393	73
Physicists, chemists	739	941	202
Biologists	187	218	31
Economists	345	416	71
Graduate teachers	6,168	7,688	1,520
Other senior staff	12,781	17,551	4,770
Total senior staff	45,654	58,861	13,207
Junior managers, supervisors	50,276	66,131	15,855
Draughtsmen	1,064	1,453	389
Technical assistants	5,125	6,472	1,347
Laboratory technicians	2,201	2,793	592
Accounting assistants	2,106	2,675	569
Nurses	6,968	8,715	1,747
Medical technicians	645	800	155
Work supervisors	6,206	8,363	2,157
Non-graduate teachers	48,025	52,832	4,807
Other junior staff	4,263	9,023	4,760
Total intermediate category	126,879	159,257	32,378

* / Data cover establishments employing 10 or more persons, except in the case of doctors for whom the total employment has been estimated on the basis of current enrolments in medical schools and the likely return of Nigerian medical practitioners from abroad.

Estimated Employment in Selected Occupations in the
Medium and Large-scale Industry* (continued)

<u>Occupation group</u>	<u>Estimated employment</u>		<u>Employment</u>
	<u>1970</u>	<u>1974</u>	<u>increase</u> <u>1970-1974</u>
Divers	16,727	22,001	5,274
Telephone operators	2,461	3,161	700
Moulders	938	1,402	464
Plumbers	1,792	2,294	502
Welders	3,509	4,983	1,474
Electricians	8,038	10,216	2,178
Machinists	5,177	7,234	2,057
Carpenters	10,253	13,163	2,910
Masons	6,318	7,681	1,363
Stationary machine operators	2,017	2,640	623
Other skilled workers	160,074	214,638	54,564
Total skilled category	217,304	289,413	72,109
Office employees	102,352	130,589	28,237
Unskilled workers	221,480	281,722	60,242
Other	51,331	65,158	13,827
Total residual category	375,163	477,469	102,306
Grand total	765,000	985,000	220,000

Projected Import Outlays 1970-1974

(million \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Capital goods					
Machinery and transport equipment	350.0	402.7	475.2	574.9	1,802.8
Intermediate goods					
Raw materials and fuels	252.0	272.2	299.3	335.2	1,158.7
Consumer goods					
Durable and non-durable	322.0	341.4	368.5	405.2	1,437.1
Total	<u>924.0</u>	<u>1,016.3</u>	<u>1,143.0</u>	<u>1,315.3</u>	<u>4,398.6</u>

(ii) Planned growth of electricity:

Since the installed generating capacity is already considerable, emphasis will be put on marginal investments that will permit a greater utilization of existing facilities.

Where economically and politically feasible, export of electricity from the Kainji dam to neighbouring countries will also be promoted.

Where the use of the Kainju power becomes economically inadvisable (north-eastern parts of the country), other power sources will be explored.

Another hydropower system based on a dam on the Gongola river is being planned to meet the requirements of the central and north-eastern areas of the country.

The total planned capital expenditure during the four-year period is spread out as follows:

Electricity Corporation of Nigeria

(million \$ U.S.)

Gird system's extension and improvement	4.116
Rehabilitation of the power system in the war-affected areas	11.761
Rehabilitation of other power stations	2.800
Gird-connected townships	27.496
Rural electrification and isolated undertaking	14.001
Distribution extensions	19.661
Civil works, vehicles, buildings, etc.	5.135
Niger Dam Authority (Gongola river project, transmission lines, etc.)	41.951
	<hr/>
	126.921

(iii) Planned growth of mining:

During the 1970-1974 plan period the Government will follow a policy of direct participation in the mining sector; the establishment of a National Prospecting and Mining Company has been approved by the Federal Government.

Concerning the petroleum and mining sector, the aim of the Government will be to effect national investment decisions; it will also participate in the three phases of the oil industry: exploration and mining, refining, distribution and marketing. A National Oil Corporation together with associated public-owned companies will be established for this purpose.

Until new users for coal are found, no major expansion of the industry is planned by the Government. The existing coal mines at Enugu and Okaba will continue to operate to meet the present requirements of the railways and other local users. Prospects for exporting Nigerian coal will be explored.

During the plan period the contribution of the mining sector to GDP is expected to rise from 5% in 1970-1971 to 12.6% in 1973-1974.

Capital Expenditure on Mining 1970-1974
(000 \$ U.S.)

<u>Projects</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Public sector					
Survey of mineral resources	47	92	148	92	379
Air-borne geological survey	2	134	420	142	698
Government's participation in the mining industry	-	-	-	-	-
Rehabilitation of the Enugu coal mines	560	1,120	1,400	2,800	4,200
Total	609	1,346	2,248	3,034	7,237
Private sector	154,018	172,500	196,583	225,987	749,089
Grand total	154,627	173,846	198,831	229,021	756,326

- 245 -

One factor which will determine the contribution of mineral resources to the growth and development of the economy is the quantum of mineral reserves. The following is a summary of the estimated reserves of the main natural resources:

<u>Resources</u>	<u>Unit</u>	<u>Known reserves</u>	<u>Probable reserves</u>	<u>Possible reserves</u>
Crude oil	million tons	200	600	1,200
Natural gas	million cubic metres	280	400	800
Coal	million tons	360	500	800
Lignite	million tons	75	150	300
Thorium	000 tons	15	20	25
Hydroelectric potential	billion kwh per annum	17	20	20

It is important that proceeds from mineral exploitation be translated into permanent and productive assets that will continue to generate income and employment within the economy for future generations.

(iv) Priority of sectors:

To promote the expansion of the intermediate and capital goods industries, the Government will support those industries seeking additional markets for their products outside Nigeria. The planning of industrial projects will be closely integrated with the development of projects for modernizing agricultural production.

The following order of priorities has been adopted as a guide for the further expansion of the manufacturing sector:

- agro-allied industries;
- petrochemical and chemical industries;
- greater integration, linkage and diversification of the textile industry;
- an integrated iron and steel complex;
- passenger motor vehicle assembly and related industries;
- expansion of existing industries for export;
- further import-substitution in selected goods.

(v) Infrastructure connection with industry:

The capacity of the water supply in the urban areas will be increased to meet the expected growth in population and in industrial and commercial activities.

An important part of the road network will consist of a new North South highway to link the new ocean terminals at Warri and Calabar with the hinterland and the prominent centres with the main border crossings.

Concerning harbours, urgent construction of four new berths will take place in Lagos, two in Calabar and two in Warri. Road connections between the harbours and their hinterland will be improved. The four major national harbours (Lagos, Port Harcourt, Calabar and Warri) will be endowed with modern cargo handling equipment.

No new railway extensions are envisaged during the plan period, but efficiency will be improved through a phased modernization of the equipment.

As for shipping, the aim will be to reassess the role of the inland water transportation in the movement of goods.

Total Investment in the Transport Sector 1970-1974
(000 \$ U.S.)

	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Total</u>
Roads					
Federal	81,921	90,344	55,564	35,004	262,833
All States	36,429	51,898	61,969	52,548	202,844
Railways	18,294	20,039	13,878	8,941	61,152
Civil aviation	7,140	13,581	11,621	6,301	38,643
Airways	8,485	8,317	8,897	7,463	33,162
Inland waterways					
Federal	1,400	2,781	2,137	1,263	7,581
All States	2,576	2,296	1,904	1,708	8,484
Maritime service	42	266	238	168	714
Shipping	140	-	2,800	3,881	8,821
Harbours	18,485	12,445	11,464	7,964	50,358
Miscellaneous					
Change over to right hand traffic	700	1,400	2,100	-	4,200
Other	140	140	140	140	560
Total					
Federal	136,747	149,313	108,840	73,125	468,025
All States	39,005	54,194	63,873	54,256	211,328
All Governments	175,753	203,507	172,713	127,381	679,353

(vi) Relationships with non-industry sectors of the economy:

One of the general agricultural policies of the plan is the development of the production of agricultural materials for extensive domestic manufacturing activities, especially in the field of agro-based industries.

The existing forest industries will be extended by promoting the widespread use of less known woods, the adoption of modern techniques and equipment, and by increasing the utilization of available manpower and material to obtain better quality products. The commercial utilization of forestry waste will be intensified.

A fishing terminal will be constructed in Lagos providing facilities for the country which are indispensable to the development of domestic marine fisheries, foreign fish landings and the growth of a potential valuable export of fish and fish products.

5. Planned industrial projects:

Inventory of projects:

Sugar production: The target is to increase production from the current level of about 25,000 tons per annum to 150,000 tons per annum. This will involve the expansion of the Bacita estate and the establishment of two or three new factories. A total sum of \$54.61 million is allocated for this development.

Palm kernel crushing: Two additional 100,000-ton plants will be established during the plan period. The estimated total cost is \$7.84 million.

Fish trawling and distribution: A project with an estimated capacity of 24,000 tons will be established at a total cost of \$10.96 million.

A combined fish and shrimps trawling and distribution project based in the Port Harcourt area will have an estimated productive capacity of 6,400 tons of fish and 1,600 tons of shrimps. The cost will reach \$2.85 million.

Pulp and paper: An integrated pulp and paper mill is planned to produce 40,000 tons of kraft pulp and 70,000 tons of industrial paper; at the initial stage it will depend on imported pulp. There is a need for developing plantations for the pulp production. A de-inking plant will also be installed at Jebba to increase the utilization of waste paper.

Wooden furniture: Two factories are projected for export production. The project is estimated at \$1.74 million.

Chemical complex: Production will include caustic soda (10,902 tons per annum), polyvinyl chloride and polyethylene (15,000 tons each). The project at a total cost of \$39.50 million is designed to broaden the industrial base of the economy to promote a better use of the country's mineral resources, like natural gas and petroleum. The Government will go into technical partnership with overseas investors for the project.

Nitrogenous fertilizers: The project costing a total of \$72.32 million will consist of an ammonia and urea plant (where ammonia will be processed into urea). It will cater mainly for the export market and will be located in one of the natural gas producing areas.

Liquefied petroleum gas: One of the major industrial projects in the plan. It will extract liquefied petroleum gas for associated gas produced by the oil companies along with crude petroleum in Nigeria. Capital requirement is estimated at \$19.32 million.

Single superphosphate: A plant to produce annually 100,000 tons of single superphosphate from imported phosphate rock and sulphur. Most of the production is expected to be used for growing ground-nuts (fertilizer). The total cost will be \$3.33 million.

Second petroleum refinery: The new refinery with a capacity of about 2.5 million metric tons will sell some of its products on the local market and export the surplus. The total cost will reach \$25.20 million, the Government's equity participation being reckoned at about \$7 million. Attention will be given to its possible linkage with the projected development of a petrochemical industry.

Salt refinery: 150,000 tons of table salt will be refined annually. It will be a public sector controlled industry. Out of a total cost of \$6.72 million, the Government's participation is estimated at \$1.30 million.

Iron and steel: The complete capacity of the proposed integrated iron and steel mill will be 750,000 tons per annum. Technical investigations on old and newly-discovered ore and coal deposits will be completed during the plan period. The construction of the basic plant is expected to start at the beginning of 1974. The estimated cost of the whole project by the date of completion is about \$336 million. The construction of the rolling mill and other finishing workshops may be phased earlier during the plan period.

Passenger car assembly: A plant with an initial one-shift capacity of at least 18,000 vehicles per annum will start production towards the end of 1972. The total investment cost would be approximately \$12.60 million.

Besides these, other projects are likely to be ready for implementation during the plan period; they are linked to existing and projected industries; they include production of rubber items, glass windows, exhaust pipes, radiators, etc. The sum of \$21 million has been provided to meet the cost of the Government's participation in some of these projects.

As a matter of public policy, the following industries shall be reserved for effective direct public sector control. Specifically, the Government will hold at least 55% in each of their equities:

- iron and steel basic complex;
- petrochemical industries;
- fertilizer production;
- petroleum products (especially for local distribution).

Other large and medium-scale industries will be run as mixed ventures with the Government's and private indigenous participation at a minimum level of 35% of their equities:

- plantation production of traditional cash crops and of basic raw materials for processing industry, such as wheat and sugar;
- food industries;
- forest product industries;
- building material and construction industries.

6. Organizational and institutional changes required for industrial plan implementation:

The instruments for the plan's control and implementation have been updated as follows:

- Any new project to be introduced into the plan has to be prepared along the lines stipulated in the "Manual on Project Preparation for the Reconstruction and Development 1970-1974" which was circulated to facilitate the appraisal of the major projects included in the plan.
- After this pre-appraisal test, all approved projects have to be routed to the Capital Estimates Committee for specific allocation of funds over specific periods.
- The projects are prepared by the Ministry of Economic Development and Reconstruction in co-ordination with the Central Planning Office in the Ministry.
- Any substantial change in an approved project must be submitted to the Executive Council for approval after prior consultation with the Ministry of Finance. The Ministry of Economic

Development and Reconstruction will also be given the opportunity to appraise the project in the light of the new total estimated cost before public funds are expended on the project. Where variation in scope and magnitude of a project is below \$28,000, the Ministry of Works can approve it. Higher variations have to be approved by the Ministries of Finance and Economic Development and Reconstruction. For variation over \$140,000, the formal approval of the Federal Executive Council must be sought after clearance with the Ministries.

- Introducing new projects requires consultation with the Ministries involved and appraisal by the Central Planning Office. All projects which are not stated in the current plan have to be approved by the Federal Executive Council before they are eligible for inclusion in the plan for implementation.

The responsibility for reporting on the plan now belongs to the Central Planning Office of the Federal Ministry of Economic Development and Reconstruction. Periodic national reports would form the basis for articulating the annual progress reports on the national plan.

Annual economic surveys would be published regularly by the Central Planning Office, dealing with performances in both the public and private sector in such fields as production, distribution, exchange, finance and external transactions. They should be seen as a compendium of the various reports of private and public agencies in the country for a given year.

In order to improve the quality of future plans, it would be necessary to enforce the use of the "Handbook for Measuring Returns on Investment". The "Manual on Project Preparation" would be also involved as guideline for the data required for future national plans. The life-span of four years given to the Second National Plan was not arbitrary, but it was judged to be the most appropriate in overcoming the bottle-necks of reconstruction and in launching the economy to a normal and better path of development.

7. Problem areas particular to the industrial sector:

There is an underutilization of human resources and a high rate of unemployment; on the other hand, there is a shortage of high-level and medium-level manpower.

The level of industrial training of indigenous personnel is low and there is very few applied industrial research work going on in the country.

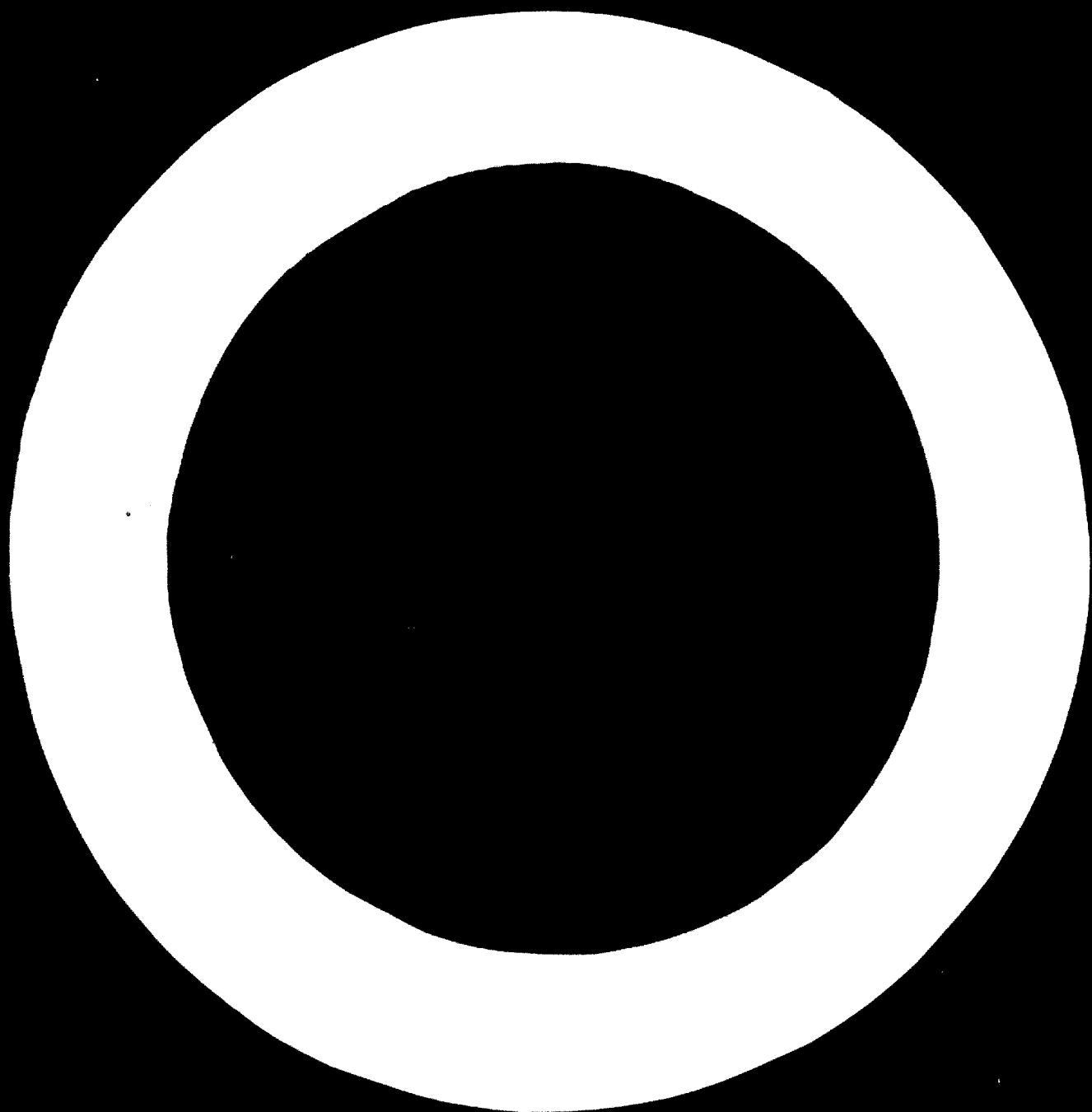
In the manufacturing sector the level of interdependence is too low.

Nigerian ownership and control of industrial investments are extremely low, particularly in the strategic industrial areas.

The small-scale industries are not sufficiently developed (low indigenous participation in the manufacturing sector which accounts to less than 10% of the GDP).

The participation of the State in the mining sector is not sufficient.

There is a too low utilization of local raw materials in industrial processes.



SUMMARY OF THE INDUSTRIAL DEVELOPMENT
PLAN OF SAUDI ARABIA: 1970 - 1975^{*/}

- I. General background information
- II. Summary of the industrial development plan

^{*/} Development Plan 1390 A.H., September 1970 - mid 1975, Central Planning Organization, Riyadh 1970, 277 pp.

BIBLIOGRAPHY

- Brown E. Hoagland: The Saudi Arabia - Kuwait Neutral Zone, Beirut, 1964.
- De Gaury Gerald: Faisal - Arthur Barber, London, 1966.
- Dequin Horst: Saudi Arabia's Agriculture and its Development Possibilities, Frankfurt, 1963.
- The Arab Economist No.1/25, the Five-Year Economic Development Plan, January 1971.
- The Arab Economist No.2/26, Saudi Arabia in 1969-1970, February 1971.
- Monthly Review of Arab Economies: No.3, 1969.
- Quarterly Economic Review: Saudi Arabia - Jordan, No.1, 1971, Annual Supplement, 1971.
- Saudi Arabia as a Market for Manufactured Products from Developing Countries - A Publication of the International Trade Centre, UNCTAD/GATT, Geneva, 1969.
- Saudi Arabia: A Survey of the Economy in 1968-1969 - "Etudes": Centre d'Etudes et de Documentation Economiques, Financières et Sociales, S.A.L., Beyrouth - Damas.
- UN: Statistical Yearbook, New York, 1970.
- UN: Monthly Bulletin of Statistics, New York, October 1971.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Saudi Arabia:

<u>Area:</u>	Total area		2,400,000 km ²
	Cultivated area	1%	(24,000 km ²)
	Potentially cultivable land	15%	

Major cities:

	<u>Population in 1970</u>
Riyadh	300,000
Jeddah	250,000
Mecca	200,000
Medina	75,000
Tayif	100,000
Damman	40,000
Hofuf	60,000

Other data: (1969-1970)

	<u>Number</u>
Telephones of which:	44,250
Automatic	25,000
Post offices	400
Private cars and taxi	48,950
Buses and coaches	4,070
Vans and trucks	35,880
Electricity production	600 million kwh

Exchange rates: (1970)

<u>Unit</u>	<u>Riyals equivalent</u>
US dollar	4.50
Pound sterling	10.77
Swiss franc	1.04
French franc	0.82
German mark	1.23
Italian lira (100)	0.72

Correspondence Between Hijri (Anno Hejira, A.H.) and the Gregorian Years (Anno Domini, A.D.)

1382 = 3 June 1962 to 25 May 1963	1962 = 27 July 1381 to 4 August 1382
1383 = 25 May 1963 to 11 May 1964	1963 = 5 August 1382 to 15 August 1383
1384 = 12 March 1964 to 30 April 1965	1964 = 16 August 1383 to 27 August 1384
1385 = 1 May 1965 to 20 April 1966	1965 = 28 August 1384 to 9 September 1385
1386 = 21 April 1966 to 10 April 1967	1966 = 10 September 1385 to 19 September 1386
1387 = 11 April 1967 to 29 March 1968	1967 = 20 September 1386 to 30 September 1387
1388 = 30 March 1968 to 18 March 1969	1968 = 1 October 1387 to 11 October 1388
1389 = 19 March 1969 to 7 March 1970	1969 = 12 October 1388 to 22 October 1389
1390 = 8 March 1970 to 27 February 1971	1970 = 23 October 1389 to 4 November 1390
1391 = 28 February 1971 to 16 February 1972	1971 = 5 November 1390 to November 1391

The Saudi Arabian fiscal year does not begin with the first month of the Anno Hejira, but half way through, and the most important source of revenue, oil, is received on a Gregorian year basis.

2. Population (estimates):

	<u>1963</u>	<u>1970</u>
Total population (000)	6,420	7,300
Density	2.7/km ²	3.0/km ²
Annual growth rate (1963-1970)		1.7%
Birth rate (1970)	-	47.5 per 1,000
Death rate (1970)	-	20.0 per 1,000
Annual growth rate from 1970 on	-	2.75%
Rural population of which:	-	65.00%
Settled cultivators	-	51.00%
Nomadic cultivators	-	14.00%
Urban population	-	17.00%

The total population of the country is uncertain, estimates vary between 4 and 7.7 million. The latter figure is a UN estimate, but is probably on the high side.

Distribution of Employment in 1966-1967

	<u>Number of workers (000)</u>	<u>%</u>
Agricultural sector	464.8	46.2
Mining and quarrying	11.2	1.1
Oil industry	14.0	1.4
Manufacturing	41.1	4.1
Construction	104.0	10.3
Electricity, gas and water	8.3	0.8
Commerce	95.8	9.5
Transport and communications	44.0	4.4
Services	218.9	21.8
Activities not defined	4.5	0.4
Total	<u>1,006.6</u>	<u>100.0</u>

Employees in the Private Sector
(000)

	<u>1966</u>	<u>1970</u>	<u>Annual growth rate</u>
Nomads	151.2	145.2	-1.0
Agriculture (settled), fishing, forestry	313.5	331.4	1.4
Petroleum	14.9	15.0	0.2
Mining and quarrying (excluding petroleum)	10.3	13.7	7.4
Manufacturing	41.0	51.8	6.0
Construction	104.0	141.5	8.0
Electricity, gas, water and sanitary services	8.4	12.2	9.7
Commerce	95.7	130.2	8.0
Transport, communication storage	44.0	62.1	9.0
Services (hotels, restaurants, etc.)	108.9	137.5	6.0
Other	4.3	-	-
Total	<u>896.2</u>	<u>1,040.6</u>	<u>3.8</u>

Employees in the Public Sector
(000)

	<u>1966</u>	<u>1970</u>	<u>Annual growth rate</u>
Cadres	66.4	81.8	5.3
Non-cadres	48.5	56.2	3.7
Total	<u>114.9</u>	<u>138.0</u>	<u>4.6</u>

Employees in Petromin and Associated Companies in 1969-1970 by Occupation Group

<u>Enterprise or company</u>	<u>Directors and managers</u>	<u>Professionals</u>	<u>Technicians</u>	<u>Skilled</u>	<u>Clerical</u>	<u>Manual</u>	<u>Total</u>
Argas	4	11	15	74	20	176	300
Arabian Drilling Co.	10	22	30	148	30	210	450
Jeddah Oil Refining Co.	25	24	36	140	75	117	417
Saudi Arabian Fertilizer Co.	8	35	61	284	20	92	500
Saudi Arabian Tanker Co.	3	1	-	-	6	-	10
Steel Rolling Mill	6	8	12	60	29	60	175
Marketing and Bulk Plants	20	6	9	45	60	50	190
Head Office	30	15	5	-	70	30	150
Total	106	122	168	751	310	735	2,192

Petromin (Petroleum and Mineral Organization) is a state-owned corporation whose aim is the industrial development and economic diversification of the country. It has a wide range of activities which expand either independently or in association with foreign companies.

Percentage Distribution of Persons Employed by Sectors

	<u>1966</u>	<u>1970</u>
Private sector	89.03	88.13
Public sector	10.93	11.69
Petromin	0.04	0.18
	<u>100.00</u>	<u>100.00</u>

Education:

Population under 15 years of age	46%
Population at school age	n.a.
Literacy rate	5-15%
School enrolment ratio (% enrolled of corresponding population at the school age of 6-17)	20

Number of Schools, Pupils and Teachers in 1969-1970

<u>Level</u>	<u>Schools</u>	<u>Number</u>	<u>Students</u> <u>% of total number</u>	<u>Teachers</u>	<u>Teacher/student</u> <u>ratio</u>
Elementary	1,730	382,329	76.6	18,903	20.2
Intermediate	227	41,789	8.4	2,817	14.8
Secondary	40	8,592	1.7	676	12.7
Teacher training	46	9,899	2.0	566	17.5
Technical/vocational	4	649	0.14	261	2.6
High level	4	3,910	0.8	348	11.2
Religious education	41	9,857	1.9	478	20.6
Special education (blind, deaf and dumb)	10	1,238	0.25	323	3.8
Adult education	592	40,726	8.2	1,853	22.0

Girl students represent about 30% of the total elementary enrolment level and they are responding to new provisions for further education. However, beyond the intermediate level, there were only one public general academic school for girls and five small secondary-level teacher training institutes in 1969-1970.

The expenditure on education amounted to 8.11% of the State's budget in 1969-1970 (\$107.5 million) and to more than 8.6% in 1970-1971 (\$121.3 million).

3. GDP:

<u>At current factor cost</u>	<u>1962-1963</u>	<u>1968-1969</u>	<u>Average annual growth</u>
Manufacturing GDP/capita (\$) *	5.43	9.34	9.3%
Industrial GDP/capita (\$)	175.18	296.71	9.1%
Total GDP/capita (\$)	297.93	493.66	8.7%
Population (000) **	6,420	7,117	1.7%
Manufacturing GDP (million \$ U.S.) *	34.88	66.44	11.3%
Industrial GDP (million \$ U.S.)	1,124.69	2,111.69	11.0%
Total GDP (million \$ U.S.)	1,912.73	3,513.38	10.6%
Manufacturing % of total GDP	1.8	1.9	
Industry % of total GDP	58.8	60.1	

*/ Petroleum refining not included.

**/ UN estimates.

Structure of Gross Domestic Product at Current Factor Cost
(million \$ U.S.)

	<u>1964-1965</u>		<u>1968-1969</u>	
	<u>Value</u>	<u>%</u>	<u>Value</u>	<u>%</u>
Agriculture, forestry and fishing	194.3	8.5	216.5	6.2
Crude petroleum and natural gas	1,002.0	43.9	1,635.7	46.6
Mining and quarrying	5.6	0.2	9.2	0.3
Petroleum refining	146.3	6.4	214.9	6.1
Manufacturing	42.5	1.8	66.4	1.9
Construction	111.5	4.9	185.4	5.3
Electricity, gas and water	28.5	1.3	43.5	1.2
Transport	164.3	7.2	260.4	7.4
Wholesale and retail trade	159.6	7.0	261.3	7.4
Banking, insurance and real estate	13.1	0.6	22.8	0.6
Ownership of dwellings	95.6	4.2	133.5	3.8
Public administration and defence	189.6	8.3	265.5	7.5
Education	58.0	2.5	94.7	2.7
Health	22.9	1.0	31.5	0.9
Other services	45.6	2.0	72.1	2.0
Total	2,279.4	100.0	3,513.4	100.0

4. Macro-economic indicators:

Money supply:

1963 - \$290.66 million

1969 - \$516.44 million

Average annual increase 10%

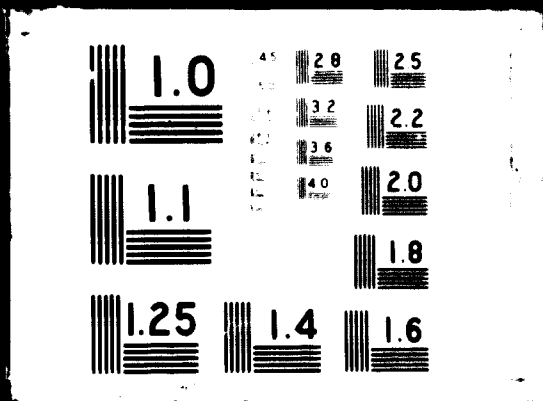


22.7.74

6 OF 10

DO

4997



Prices:Wholesale Price Index

(1962-1963 = 100)

	<u>1964-1965</u>	<u>1965-1966</u>	<u>1966-1967</u>	<u>1967-1968</u>	<u>1968-1969</u>
General index	101.7	103.7	108.5	109.2	110.7
Food	105.2	108.4	113.9	113.5	116.0
Textiles	90.3	90.5	92.8	92.4	90.9
Gasoline and fuels	92.9	90.9	91.1	90.9	90.3
Building materials	105.5	106.9	116.4	123.8	125.1
Miscellaneous commodities	99.7	102.3	102.3	104.2	107.2

GDP:

1963 - \$1,912.73 million
 1969 - \$3,513.38 million
 Average annual increase 10.66%

- 267 -

Cost of Living
(1962-1963 = 100)

Household With an Average Income of \$66.7 a Month

	<u>Weight in %</u>	<u>1964-1965</u>	<u>1968-1969</u>
General index	100.0	103.0	110.7
Food	50.0	104.6	117.7
Housing	25.0	103.6	106.8
Clothing	8.3	97.4	102.9
Miscellaneous goods and services	16.7	100.5	102.6

Household With an Average Income of \$133.3 a Month

	<u>Weight in %</u>	<u>1964-1965</u>	<u>1968-1969</u>
General index	100.0	103.2	110.7
Food	41.6	104.2	116.0
Housing	25.0	106.7	113.4
Clothing	10.0	96.2	96.4
Miscellaneous goods and services	23.4	100.5	104.6

Source: Central Department of Statistics.

Total Value of Export and Imports
(million \$ U.S.)

	<u>1964-1965</u>	<u>1965-1966</u>	<u>1966-1967</u>	<u>1967-1968</u>	<u>1968-1969</u>	<u>1969-1970</u> *
Total imports	-376.1	-457.4	-508.5	-491.6	-623.1	-714.0
Total exports	<u>1,329.8</u>	<u>1,519.6</u>	<u>1,701.1</u>	<u>1,745.0</u>	<u>1,989.5</u>	<u>2,055.5</u> *
Balance	953.7	1,062.2	1,192.6	1,253.4	1,366.4	1,341.5*

*/ Provisional figures.

- 269 -

Balance of Payments

(million \$ U.S.)

	<u>1966</u>	<u>1969</u>
Current account		
Receipts		
Exports (f.o.b.)	1,543	1,845
Oil royalties from companies other than Aramco	44	54
Pilgrimage	59	94
Miscellaneous	46	68
	<hr/>	<hr/>
Total receipts	1,692	2,061
Payments		
Imports (c.i.f.)	629	839*
Non-monetary gold	32	16
Investment income payments	606	725**
Government expenditure abroad	81	278
Travel	58	85
Tapline expenditure abroad	22	23
Other services	143	154
	<hr/>	<hr/>
Total payments	1,571	2,120
Balance on current account	+121	+39
Capital and financing account		
Direct investment liability (- = decrease)	-35	+39
Gold, foreign exchange holdings and investments of SAMA (- = increase)	+113	-121
Commercial banks' net foreign position (- = increase)	-15	+10
Errors and omissions	+58	+13
	<hr/>	<hr/>
Total capital and financing account	+121	-59

*/ Provisional.

**/ Including first quarterly instalment of \$35 million paid to the Arab Fund in October 1967, \$140 million in 1968 and \$147 million in 1969.

SAUDI ARABIA

- 270 -

Budget Revenues

(000 \$ U.S.)

	<u>1968-1969</u>	<u>1970-1971</u>
Oil royalties	261,555	349,555
Income tax	681,222	880,666
Tapline transit duties	555	777
Tax on petroleum products	5,222	19,777
Customs duties	53,888	64,888
Transport tax	10,088	12,777
Services	20,133	31,111
Investment income	2,333	3,777
Government sales	1,000	1,888
Rent	888	2,000
Zakat	1,333	1,444
Miscellaneous revenues	50,666	49,111
Additional revenues from oil	-	-
Total ordinary revenue	<u>1,088,888</u>	<u>1,417,777</u>
From development fund	44,444	-
From general reserve	97,777	-
Total	<u>1,230,109</u>	<u>1,417,777</u>

Budget Expenditure
(000 \$ U.S.)

	<u>1968-1969</u>	<u>1970-1971</u>
Private treasury	38,475	38,475
Information	22,123	16,865
Foreign affairs	15,183	13,158
Defence	307,090	414,750
Social affairs	22,344	23,698
Interior	187,757	183,898
Education	108,250	121,340
Communication	176,647	140,600
Agriculture and irrigation	108,327	69,453
Finance and economy	57,307	55,840
Petroleum and minerals	16,760	13,070
Health	37,677	39,355
Commerce and industry	6,824	5,390
Arab aid	-	88,890
Other	203,120	193,218
Anticipated savings	<u>-77,770</u>	<u>-36,000</u>
Total	1,230,000	1,418,000

Oil generally accounts for about 80% of the revenue (royalties and income tax). Defence represents the largest single sector of expenditure. For the first time through many years there was no recourse to the "General Reserve" nor to the "Development Fund" for the financing of the 1968-1969 budget.

5. Industrial products and technology - main manufacturing industries:

The manufacturing industry of Saudi Arabia (excluding petroleum refining) is still in its first stage of development. Its share in GDP averaged just under 2% during the period 1962-1963 to 1968-1969. Nevertheless, it has been growing faster than the GDP as a whole with an average annual rate of 11.3% for the six-year period and of 12.1% during the last three years of that period. Income originating from industry rose by 90% in 6 years compared to 72% for GNP.

A survey undertaken in 1969 by the Centre of Industrial and Development Studies stated that the number of industrial units in Saudi Arabia were 283 (not including oil companies, refineries, mineral industries, workshops, carpentries and bakeries). These enterprises are distributed as follows:

<u>Branch</u>	<u>Number</u>
Brick-making	45
Electricity	41
Furniture	30
Printing and editing	27
Metallic products	25
Food-stuffs	18
Garments	14
Non-metallic mineral products	12
Beverages	12
Other	59

Most of these plants are located in Jeddah (83), Riyadh (54) and in the oil areas. The capital invested in these establishments amounts to about \$222 million and the labour force employed rose to about 10,000 persons.

Among the major branches operating at that time, it is worth mentioning the cement industry:

<u>Plant</u>	<u>Capacity</u>	<u>Production in 1968-1969 (tons)</u>	<u>% of the total production</u>
Arab Cement Co. (Jeddah)	1,000 tons/day	224,000	44
Saudi Cement Co. (Dammam)	200,000 tons/year	190,604	37
Yamanah Cement Co. (Riyadh)	100,000 tons/year	96,209	19

Although the total production of 1968-1969 reached 510,813 tons compared to 417,621 tons in the preceding year (+22%), the output was insufficient and cement had to be imported. Thus, two extension projects were made to raise the production of both plants, Dammam and Riyadh. In 1969-1970 the production reached 577,000 tons.

During 1969 and 1970 the manufacturing sector continued to grow: existing units were expanding and numerous licenses were distributed for the creation of new industries:

- 3 furniture factories (of which one metallic furniture company);
- 1 glass factory with an estimated annual production of 105,000 tons;
- 1 plant of nylon threads and bags;
- 1 plastic pipe manufacture;
- 1 gas stove and pipe factory;
- 1 nail and screw factory with a capacity of 350 tons/year;
- 1 factory for optical, medical and scientific instruments;
- 1 flour-mill.

The Government has been promoting the development of the industrial sector through different measures like customs exemptions (for imported equipment and machines), the creation of an industrial zone in the three main industrial cities of the country (Jeddah - 500,000 m², Riyadh - 300,000 m² and Dammam), the creation of the Industrial Bank and the identification of investment opportunities in the sector.

Petrochemicals:

Petromin, the Government agency attached to the Ministry of Petroleum and Mineral Resources, started in 1966 the construction of a fertilizer plant in Dammam and set up the Saudi Arabian Fertilizer Company (SAFCO) to operate it. Production started in 1969 with a capacity of 1,100 tons of urea and 35 tons of crude sulphur per day.

A sulphur plant was completed towards the end of 1970 in Abqaiq with a daily capacity of 500 tons of liquid sulphur, using 500 million m³ of gas a day.

6. Industry - related resources and sectors:Main crops:Distribution of the Cultivated Area

Food-grain	80%
Vegetables	2%
Fruit-trees	2%
Dates	16%

Agricultural Production 1969-1971

	<u>Production</u> (tons)	<u>Value</u> (million \$ U.S.)
Wheat	135	21.5
Barley	37	4.9
Rice	3	0.4
Sorghum	112	18.2
Millet	155	25.3
Alfalfa	1,760	31.3
Vegetables	510	40.2
Dates	250	27.8
Fruits	94	17.3
		<u>187.0</u>

- 275 -

Animal Products

	<u>Production</u> <u>(tons)</u>	<u>Value</u> <u>(million \$ U.S.)</u>
Meat	48	39.6
Broilers	4	4.0
Eggs*	50	2.2
Fish	30	13.3
Dairy products**	210	46.7
		<u>105.8</u>

*/ The price is per dozen and the production by million of eggs.

**/ Dairy products are shown as milk equivalent.

Livestock

Sheep	3,600,000
Goats	1,900,000
Camels	250,000
Donkeys	22,000
Horses	4,000

Contribution of Agriculture to GDP

<u>1962-1963</u>		<u>1969-1970</u>	
<u>(million \$ U.S.)</u>	<u>%</u>	<u>(million \$ U.S.)</u>	<u>%</u>
192.4	10.1	216.4	6.1

Minerals and mining:

Most of the activity in this sector consists of quarrying, building stores of various types, salt, gypsum, clay and lime. The mining of iron-ore and of phosphates is still insignificant, but prospects are good and resources are being widely examined.

In 1969-1970 quarrying and mineral resources amounted to 0.3% of GDP (average annual growth rate of 14.4% from 1962-1963 to 1968-1969).

Fuels:

The oil sector is the key of Saudi Arabia's economy and the basis on which she builds her planning.

	<u>Relative Shares of GDP</u>						
	(% at current prices)						
	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Production of crude oil	47.1	44.2	44.0	46.3	46.3	46.8	46.6
Petroleum refining	6.1	6.4	6.4	5.9	5.6	6.0	6.1
Total	53.2	50.6	50.4	52.2	51.9	52.8	52.7

Oil Production
(million barrels)

<u>Year</u>	<u>Production</u>	<u>Absolute change</u>	<u>% increase</u>
1962	599.7	+59.0	+10.8
1966	950.0	+145.2	+18.0
1970	1,386.2	+212.3	+18.1

Oil Production by Company
(million barrels)

<u>Year</u>	<u>Aramco</u>	<u>% of total</u>	<u>Getty oil</u>	<u>\$</u>	<u>Arabian oil</u>	<u>\$</u>	<u>Total</u>
1962	555.0	92.5	33.7	5.6	11.0	1.8	599.7
1966	873.3	92.0	30.2	3.1	46.5	4.9	950.0
1970	1,295.2	93.4	28.3	2.0	62.7	4.5	1,386.2

In 1969 Saudi Arabia was in the fifth place among the world producers (7.3% of the world production) and first as far as estimated proved reserves are concerned (28.6% of the world's crude reserves).

- 277 -

Oil Revenues by Source

(million \$ U.S.)

<u>Year</u>	<u>Aramco</u>	<u>Getty oil</u>	<u>Arabian oil</u>	<u>Others</u>	<u>Total</u>
1966	745.5	20.6	22.3	1.3	789.7
1969	895.2	15.2	37.1	1.5	949.0*
1970	1,145.4	n.a.	n.a.	n.a.	n.a.

*/ The 1969 oil revenues were not as good as expected (\$1,150 million); this is to be attributed to the lower rate of growth in production and to losses in exports (closing of the Tapline for 110 days).

Refining:

Saudi Arabia ranks second among the Middle East and African countries in refining activities with a daily refining capacity of 327,000 barrels after Kuwait (489,000 barrels/day). The petroleum refining contributed 6.1% to the GDP in 1968-1969.

<u>Refineries in operation</u>	<u>Capacity (barrels/day)</u>
Ras Tanura (Aramco)	235,000
Mina'Saud (Getty Oil Co.)	50,000
Khafqi (Arabian Oil Co.)	30,000
Jeddah (75% to Petromin)	12,000
Total	327,000
Riyadh (Petromin) projected	15,000

An oil lubricating plant has been planned to be established in Jeddah with an initial production capacity of 75,000 barrels/day.

The largest part of the country's oil production is, however, exported as crude oil.

<u>Year</u>	<u>Total production</u>	<u>Exported as crude oil</u>	<u>Refined in Saudi Arabia</u>
	<u>Million barrels</u>	<u>Million barrels</u> <u>% of total</u> <u>production</u>	<u>Million barrels</u> <u>% of total</u> <u>production</u>
1965	804.8	623.5 77.5	181.3 22.5
1969	1,173.9	939.0 80.0	234.9 20.0
1970	1,386.2	n.a. n.a.	n.a. n.a.

Oil Exports

<u>Year</u>	<u>Crude oil</u>	<u>Refined oil</u>	<u>Total</u>
	<u>Million \$ U.S.</u> <u>Million barrels</u>	<u>Million \$ U.S.</u> <u>Million barrels</u>	<u>Million \$ U.S.</u> <u>Million barrels</u>
1965	1,119.2 623.5	215.7 104.0	1,334.9 727.5
1966	1,350.1 759.6	222.9 105.0	1,573.0 864.6
1967	1,460.0 822.0	233.0 112.0	1,693.0 934.0
1968	1,623.0 893.0	283.0 138.0	1,905.0 1,031.0
1969	1,673.0 939.0	286.0 146.0	1,959.0 1,085.0

In 1969 Saudi Arabia exported 43% of its total crude oil to Europe (26% of which to the European Economic Community), 23.2% to Japan, 7% to the United States army, 29% to Australia, 3.5% to Africa and the rest to the Middle East, Asia and America.

Natural gas:

Proved natural gas reserves were estimated in 1969 at 129 billion m³, corresponding to 3.5% of the world reserves. The exploitation is still at the beginning stage. The locally-consumed gas is supplied by Aramco to Petromin which sells gas to the various distributors in the country. Natural gas is also supplied to the Dhahran Electrical Power Company.

Power:

Power generation, mainly private, is limited except on the oilfields where the capacity is over 100 MW, but development has occurred in the main towns. Electricity generated in the five major cities amounted to 599 million kwh in 1969.

Transport:

In 1970 there were about 8,000 km of paved roads linking the main centres. At present, another 2,000 km are under construction.

There are two railway lines, one running from Damman to Riyadh (584 km), the other being the derelict Hejaz railway from Ma'an in Jordan to Medina, the restoration of which is in hand, but progressed very little since 1967.

The main sea ports are the Jeddah port (Read Sea), the Damman port (gulf), the Yanbou port (Read Sea) and the Jizan port (Red Sea).

The main international airports are in Jeddah, Dhahran and Riyadh.

Main exports:

Saudi Arabian exports are essentially composed of oil and oil products, the rest being agricultural products mainly sold to neighbouring countries.

Exports
(million \$ U.S.)

	<u>1965-1966</u>		<u>1969-1970</u>	
	<u>Value</u>	<u>%</u>	<u>Value</u>	<u>%</u>
Crude oil	1,119.1	73.62	1,673.0	81.41
Refined oil	215.7	14.19	286.0	13.91
Other items	185.2	12.18	96.0	4.67
Total	1,520.0	100.00	2,055.0	100.00

In 1969-1970 exports were expected to be higher, yet various factors (fall in unit price for oil barrels, closing down of the Tapline, etc.) somewhat slowed down their growth.

Main Suppliers
(% of total imports by value)

	<u>1965-1966</u>	<u>1969-1970</u>
United States of America	26.45	18.6
Japan	6.41	10.3
Lebanon	4.93	9.9
United Kingdom	7.25	8.9
European Economic Community of which:	24.16	24.3
Federal Republic of Germany	5.66	7.9
Italy	6.96	5.3
Netherlands	5.04	5.0
France	3.90	3.7
Belgium	2.60	2.4
Arab Common Market countries	n.a.	6.8

7. Overall economic development strategy and policy:

Since the beginning of the 1960's, a policy of a balanced budget has been pursued and a sound balance of payments has always been maintained without restrictions in imports or remittances. The Middle East crisis changed the picture. A decline was observed in the rate of growth of GDP, in foreign exchange holdings and in the percentage increase of oil production. This situation compelled the Government to adopt an austerity policy in its public expenditure while seeking at the same time to increase domestic revenues.

In spite of a slight reduction in development allocations, Saudi Arabia's economic policy continued to keep as primary objective the building of her basic infrastructure, other main aims being:

- the diversification of the production and reduction of the dependence on oil;
- higher employment;
- a more equal distribution of wealth.

8. Regional co-operation: (and international economic agreements)

Saudi Arabia belongs, as an important petroleum producer, to the Organization of the Petroleum Exporting Countries (OPEC) which was established in 1960 to unify and co-ordinate the members' petroleum policies and to generally safeguard their interests. Saudi Arabia comes in the fifth place among the world producers after the United States of America, the Union of Soviet Socialist Republics, Venezuela and Iran. As far as production is concerned, she is the largest exporter in the Middle East. The other members of OPEC are Abu Dhabi, Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar and Venezuela.

Saudi Arabia is also a member of the Organization of Arab Petroleum Exporting Countries (OAPEC) created in 1968 and open to Arab countries producing a large proportion of oil and which depend primarily on oil revenues as a source of income. The objectives of OAPEC are complementary to those of OPEC. While OPEC's activities are mainly directed towards price stabilization, those of OAPEC are geared towards achieving the principle of partnership at all stages of the oil industry. Members of OAPEC are Abu Dhabi, Algeria, Bahrain, Dubai, Kuwait, Libya and Qatar.

At the beginning of 1971 Saudi Arabia and five producing gulf states of OPEC (Abu Dhabi, Iran, Iraq, Kuwait and Qatar) signed an important oil agreement with the western oil-producing companies, raising income tax payments made by the companies to those countries. This means an immediate increase of 35 cents per barrel on posted prices for Saudi Arabia. The posted prices of Saudi Arabia's exports via the Tapline were covered by a separate agreement which was in line with terms negotiated by Libya.

Crude Petroleum Production
(monthly average in 000 metric tons)

	<u>1965</u>	<u>1970</u>
United States of America	32,079	39,590
Union of Soviet Socialist Republics	20,241	29,381
OPEC members		
Venezuela	15,201	16,174
Iran	7,844	16,019
<u>Saudi Arabia</u>	8,419	14,690
Libya	4,865	13,552
Kuwait	9,087	11,452
Iraq	5,373	6,370
Nigeria	1,128	4,458
Algeria	2,169	3,938
Abu Dhabi	1,142	3,810
Indonesia *	2,000	3,507
Neutral Zone	1,612	2,227
Qatar	913	1,438
	<hr/>	<hr/>
OPEC members' monthly average production	59,753	97,638
OAPEC members not belonging to OPEC		
Bahrain	237	319
Dubai	-	359
	<hr/>	<hr/>
OAPEC members' total monthly production	28,444	51,785

*/ The Neutral Zone was jointly run by Saudi Arabia and Kuwait until the beginning of 1970 as a condominium; then an agreement was ratified delimiting the final boundary partitioning the mainland of the zone between the two countries.

9. Systems for planning and plan implementation:

The first development plan of Saudi Arabia has been prepared by the Central Planning Organization with the co-operation of all ministries, agencies and Government departments concerned. The creation of this organization has shown the importance given by the Government to a continuing and critical appraisal of all aspects of economic and social development and to the benefits that can accrue from inter-ministerial co-ordination and from formulating programmes for several years instead of annually as it was before.

The general objectives of the Central Planning Organization are:

- to improve the utilization of economic, financial and human resources by ensuring that decisions on policies, programmes and projects are based on adequate studies of the economic, social and financial implications of such decisions;
- to promote the collection of statistical and research information so that decisions may be made and plans and programmes formulated in the light of a more comprehensive knowledge of facts and a better assessment of the potential for development;
- to encourage the adoption of policies and forms of the economic organization that will give greater freedom to the economic and social forces to contribute to the processes of economic and social development.

The role of statistical data in planning economic development and evaluating progress led Saudi Arabia to establish a Central Department of Statistics (CDS) with the responsibility and authority to determine statistical requirements and initiate programmes. A highly integrated national statistical system was chosen and substantial progress has been made in recent years, but the data developed still are far from the desirable quality and quantity.

Therefore the major objectives for statistical development are:

- to improve the quality of all existing statistical series;
- to expand the existing series to provide additional information not yet available but required by planners, decision-makers and managers;
- to accelerate the collection, analysis and publication of economic and social data of all type.

Other bodies responsible for implementation:

General Petroleum and Mineral Organization (Petromin):

Petromin is responsible for the development of the oil production by national enterprises, for the refining and distribution of petroleum products for the domestic market, the establishment of national industrial enterprises for mineral production, petrochemicals, fertilizers and basic industries and for the establishment of national companies to provide services for these industries. It acts as a holding company which first initiates enterprises and continues to exercise control over policies and new investments; it also ensures sound management supporting services after they are established. Petromin follows a policy of manpower development, emphasizing the training of Saudi Arabians within the organization and abroad to fill posts in Petromin and its subsidiaries.

Ministry of Commerce and Industry:

The Ministry is responsible for:

- the preparation and implementation of the industrial policy and encouraging the private sector to develop the manufacturing industries other than petrochemicals, fertilizers and the basic metal industry;
- the construction industry.

In addition, the Ministry is empowered to regulate commodity prices and to register private enterprises. The Ministry reviews the feasibility of an industrial project prior to granting the license which must be obtained by any Saudi Arabian entrepreneur who wants to benefit from the available incentives. The Ministry will not grant any form of encouragement if it does not consider the business venture as economically justified.

Industrial Studies and Development Centre (ISDC):

The Industrial Studies and Development Centre carries out research and studies relating to industrial development, makes recommendations based on such studies and provides technical assistance to existing or prospective industries. The Centre also supervises the construction and management of the industrial estates and provides on-the-job training through its industrial extension service. The promotion of industrial productivity is also one of the goals of the Industrial Studies and Development Centre's programmes.

An Agricultural Bank has also been created for the purpose of plan implementation.

The actual development plan was prepared in 1969. Since then it has been possible to add data for two more years and certain changes were introduced. Further, the depth of details of the individual sectors has been expanded. This allowed for refining the techniques employed in estimating the value added in most sectors and in projecting their future growth.

The plan is as much a statement of the potential impediments to development as a list of objectives. Changes in the plan might be made in the future to adapt it to the varying conditions.

10. Problems encountered through the previous development period:

The economy of Saudi Arabia is dominated by four main problems:

- The dependence on oil. Economic growth has been primarily a product of this sector rather than an equilibrated economic development. This has led to the situation where further development of the economy is strongly dependent on the growth of revenue and foreign exchange earnings from oil.
- Manpower problems: Rapid growth has brought a growing demand for manpower at all levels largely outpacing supply; employment of foreign personnel provided only a partial solution to the low supply of national employees with sufficient education and training.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN September 1970 - mid 1975

1. General goals and objectives:(i) Planned growth:

	<u>1969-1970</u>	<u>1975</u>	<u>Average annual growth</u>
Manufacturing GDP/ capita (\$)	10.27	15.08	7.9%
Industrial GDP/capita (\$)	307.00	422.30	6.6%
Total GDP/capita (\$)	n.a.	n.a.	7.2%
Population (000)*	7,238	8,280	2.7%
Manufacturing GDP (million \$ U.S.)	74.38	124.91	10.9%
Industrial GDP (million \$ U.S.)	2,222.07	3,496.37	9.5%
Total GDP (million \$ U.S.)	n.a.	n.a.	9.8%
Manufacturing % of total GDP	n.a.	n.a.	
Industry % of total GDP	n.a.	n.a.	
Consumption (million \$ U.S.)	n.a.	n.a.	n.a.
Investment (million \$ U.S.)	n.a.	n.a.	n.a.
Total planned investment (million \$ U.S.)		9,180	
Exports (million \$ U.S.)	n.a.	n.a.	n.a.
Imports (million \$ U.S.)	n.a.	n.a.	n.a.
Employment (000)**	1,180.7	1,492.2	4.8%

*/ United Nations estimates.

**/ Estimated number of workers required.

(ii) Other objectives:

- to increase the rate of growth of the gross domestic product;
- to develop human resources in order to contribute more effectively to the process of development;

- to diversify sources of national income and reduce the dependence on oil by increasing the share of other productive sectors in GDP;
- to raise living standards and welfare of the population, while providing for national security and maintaining the economic and social stability through religious and moral values.

2. Strategy and policy:

(1) General:

The Government will continue to maintain an open and stable economy without exchange or import restrictions.

The main programmes and projects to be undertaken during the plan period fall within the following areas:

- petroleum refining: projects for refineries, bulk storage, blending of lubricating oil;
- petrochemical and fertilizer industries;
- surveying, exploration and exploitation of minerals;
- basic metal industries.

The large reserves of petroleum, natural gas and rock phosphate will offer cheap sources of power for industry and will also constitute the principal raw materials for the production of petrochemicals and nitrogenous fertilizers; natural gas could be used in the production of concentrated and pelletized iron-ore and in the reduction of iron-ore into iron and steel.

An effort will be made to supply the increasing demand in Africa and Asia with products of the extractive, petrochemical and fertilizer industries and of the basic iron and steel industries. The Government will have to announce an explicit price policy for refined petroleum products and natural gas.

The Government will also promote investment in the exploitation and exploration of mineral deposits by encouraging foreign mining companies and national private capital to participate in this development.

The Government will tend to replace imports through local production and encourage a fuller utilization of capacity in the private manufacturing sector. Productivity will be increased through the closer approach to an optimal size of factories and promotion of the interdependence of industries.

(ii) Manpower and productivity:

Education:

The main objectives will be:

- to increase the present total enrolment by achieving an enrolment of at least 90% of the total 6-year old male population in the first grade at the end of the plan period;
- to reduce overcrowding in elementary classes.

With regard to higher education, taking into account the increasing number of students completing secondary education, the plan provides assistance to the existing institutions by adding new facilities and equipment.

Vocational and managerial training:

Technical education, vocational and other forms of training have been classified into five categories which have the Government's support:

- technical education programmes of the Ministry of Education;
- vocational training centres operated by the Ministry of Labour;
- training programmes operated by the several ministries and departments of the Government;
- the Institute of Public Administration;
- training in private establishments.

The Government will consider assisting individual companies to expand existing training programmes.

Further studies will be made of on-the-job training methods and techniques that private employers have used for training Saudi Arabian workers. Their experience will be used to help other employers.

In addition to the existing centres for rapid vocational training, six small centres (100 graduates annually) and, according to the offer presented by UNICEF and ILO, three preparatory training centres are to be opened during the plan period.

Technical Vocational Sections
Before and During the Plan

<u>Vocation</u>	<u>1969-1970</u>	<u>1975</u>
Welding and blacksmithing	3	6
Electricity	8	14
Diesel vehicle mechanics	5	6
Carpentry including its branches	6	6
Building including its branches	6	6
General mechanics	4	4
Plumbing	4	6
Metal-working	2	6
Printing	1	3
Office machine maintenance	1	3
Sewing	1	6
Barbers	-	3
Painting	1	6
	<u>42</u>	<u>75</u>

Employment in the Different Sectors in 1970 and in 1975

Nature of activity	Estimated number of workers (000)		Annual growth rate 1970-1975	Annual rate of productivity 1970-1975
	1970	1975		
Nomads	145.2	134.6	-1.5	-
Agriculture	331.4	348.3	1.0	3.5
Petroleum	15.0	15.7	0.9	7.0
Mining and quarrying, excluding petroleum	13.7	20.6	8.5	6.0
Manufacturing	51.8	70.3	6.3	6.8
Construction	141.5	205.0	7.7	4.0
Electricity, gas and water	12.2	19.6	10.0	4.5
Commerce	130.2	197.6	8.7	4.0
Transportation, communication and storage	62.1	98.2	9.6	4.0
Services	137.5	191.9	6.9	2.0
Other	- \	-	-	-
Total or average private sector	1,040.6	1,492.2	4.6	-
Cadres	81.8	120.8	-	-
Non-cadres	56.2	63.7	-	-
Total or average public sector	138.0	184.5	6.0	-
Petromin	2.1	5.9	23.0	-
Total or average	1,180.7	1,492.2	4.8	-

Summary of Manpower Requirements by Education, Training and Levels of Skill 1970-1975

<u>Education, training or level of skill</u>	Public				<u>Total</u>
	<u>Cadres</u>	<u>Non-cadres</u>	<u>Private</u>	<u>Petromin</u>	
Managers and administrators*	-	-	3,935	70	4,005
Professionals	-	-	2,445	450	2,895
University degree**	8,799	-	-	-	8,799
Technicians (intermediate to secondary certificate plus 1 to 3 years of training)	3,213	-	4,580	730	8,523
High school or secondary certificate	15,001	-	-	-	15,001
Intermediate certificate	5,349	-	1,060	300	7,709
Primary certificate	2,606	1,100	66,440	-	70,146
Skilled and semi-skilled workers	3,062	1,900	55,630	1,130	61,722
Unskilled workers	-	3,000	137,710	1,120	141,830
Other	-	750	-	-	750
Religious workers	-	750	-	-	750
Sub-total	39,030	7,500	271,800	3,800	322,130
Nomads	-	-	(-10,600)	-	(-10,600)
Total of all sectors	39,030	7,500	261,200	3,800	311,530

* / some with university degrees.

** / also teachers in intermediate and secondary schools, teacher training colleges and some managers and administrators.

- 297 -

Total Supply of and Demand for Manpower
in 1970 and 1975
(000)

<u>Year</u>	<u>Supply</u>	<u>Demand</u>
1970	1,165.4	1,180.7
1975	1,376.2	1,546.1

Supply due to the natural increase of the labour force alone will increase by 210,800.

The manpower supply deficiencies will be distributed according to the education and levels of skill as follows:

University degree level	4,600
Top-level managers and administrators	2,300
Technicians and other sub-professional workers	4,510
Skilled and semi-skilled workers	45,700

(iii) Investment and capacity utilization:

Summary of Financial Allocations for the Plan
(million \$ U.S.)

	<u>Recurrent</u>	<u>Project</u>	<u>Total amount</u>	<u>Total percentage</u>
Administration	1,509.9	205.0	1,714.9	18.6
Defence	884.4	1,238.9	2,123.3	23.1
Education, training and cultural affairs	1,366.7	272.8	1,639.5	17.8
Health and social affairs	358.4	68.5	426.9	4.7
Public utilities and urban development	277.1	739.0	1,016.1	11.1
Transport and communications	392.7	1,268.7	1,661.4	18.1
Industry	71.5	172.6	244.1	2.7
Agriculture	216.4	109.7	326.1	3.6
Trade and services	18.5	9.7	28.3	0.3
Total	5,095.7	4,085.0	9,180.7	100.0

The total financial allocations for the plan give a provisional figure covering the total estimated cost of the programmes and projects described in the plan. It will be revised from year to year in accordance with the development of the economic evolution. These allocations will be subject to a review for the following reasons:

- The rate of expansion of some programmes may have to be reduced and some projects deferred because of the annual budgetary constraint.
- The allocations for some programmes and projects are contingent on the completion of further studies.

Expenditures are expected to fall short of the total allocations because of time lags in the implementation of projects and difficulties in recruiting qualified personnel.

Industrial Bank:

An Industrial Bank will be established to extend credits to large and medium-scale enterprises and to make subsidized credits available to small-scale and cottage industries. As it would be difficult to extend such facilities on a normal commercial basis, it is felt that the necessary funds would need to be provided by the Government in the form of budgetary allocations of about \$1.11 million annually over the entire plan period.

To promote investment, a National Industrial Policy will inform about the industrial, commercial and financial interests and the Government's point of view on key issues. A draft statement prepared by the

Council of Ministers outlines the following forms of encouragement:

- The Government will supply available information to investors such as results of industrial surveys, feasibility studies, etc.
- Imported equipment and raw materials for industry will continue to be duty-free.
- Tariffs will be established whenever sufficient economic causes exist to protect domestic industries from comparable imported finished products.
- The Government will partially subsidize training for Saudi Arabian employees.
- Land will be provided in industrial estates and elsewhere at nominal rentals.
- Tax holidays will be offered for the company's income.
- Low cost loans and operating subsidies will be made available under certain conditions.
- The Government will give preference to locally-manufactured products in its purchasing policies.
- Quantitative restrictions or price controls will be avoided, except where competition cannot be effective as in the case of a natural monopoly.

In addition, the Government will consider joining the Commission for the Settlement of International Disputes recently established to deal with international investments.

The Government will also initiate studies on the need for establishing a bank to serve people with a limited income and encourage the national banks to open branches in smaller towns without banking services.

(iv) Interconnections between growth factors:

3. Data bases and projections:

Although substantial progress has been made in recent years, the data developed still fall far too short of the desirable quality as well as quantity. The most important limiting factor in obtaining the desired data is the shortage of trained people on both the administrative and field levels. A scheme of priorities for the various programmes required has to be established according to the following objectives:

- improvement of the quality of all existing statistical series;
- expansion of the existing series to provide additional information;
- acceleration of the collection, collation, analysis and publication of economic and social data of all types.

The Central Department of Statistics has identified four targets for the plan:

- Completion of a comprehensive census by the last year of the plan. The planning and preparation must be completed in time for the counting of people to be performed in 1972-1973 if the results are to be analyzed and published by the target date.
- Initiation by 1971-1972 of a series of quarterly sample surveys to obtain data from which the natural population growth rate can be calculated.
- Co-operation with other ministries and agencies in obtaining an improved data base from which to estimate the GNP.
- Expansion of the Central Department of Statistics' data base for improving and adding it to the existing statistical series.

New statistical series will be devoted to:

- the gross national expenditure;
- the national income (total, rate of growth, distribution);
- economic indicators (wages, prices, cost of living, foreign trade, employment);
- capital formation;
- Government accounts;
- classification of commodities used in trade statistics;

- foreign trade and balance of payments;
- Gregorian calendar, methods for presenting all statistics on a Gregorian calendar year basis in order to avoid distortion in comparison which occurs when periods differ in duration.

It is proposed to replace the existing unit-record-type of processing the equipment with a medium-sized computer. It is also foreseen to construct a special building to house the Central Department of Statistics with a staff of 300 before the end of the plan.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

It is expected that the value added of the total industrial sector will grow at 9.5% annually during the plan period; manufacturing GDP will increase at 10.9% per annum.

The possibilities for local capital investment are large in Saudi Arabia, but medium and long-term credits are not available thus constituting a serious obstacle to the development of the industry. The establishment of the Industrial Bank, therefore, will be a crucial step towards the realization of the Kingdom's industrial potential.

In addition to the projects expected to be taken by private investors, a grain silo and a flour mill project have been considered. This project would establish an integrated industry in the country for the bulk importation and the storage of wheat, the milling of flour, and the processing of animal feed from wheat by-products. The Government would supplement private capital investment.

Financial Allocations for Industry^{*/}

(million \$ U.S.)

	<u>Recurrent</u>	<u>Project</u>	<u>Total</u>
Ministry of Petroleum and Mineral Resources			
Ministry's expenditure	9.0	-	9.0
Directorate General of Mineral Resources (DGMR)			
Directorate's expenditure	18.3	1.2	19.5
Arabian Drilling Company (ADC)	-	10.1	10.1
Saudi Arabian Mineral Exploration Co. (SAMEX)	-	4.4	4.4
Foreign Contract Services	-	24.5	24.5
	<u>18.3</u>	<u>40.3</u>	<u>58.6</u>
Sub-total of the Directorate General of Mineral Resources	18.3	40.3	58.6
Petromin	23.1	106.1	129.2
Ministry of Commerce and Industry (MCI)			
Department of Industry	2.5	-	2.5
Industrial estates	0.9	6.0	6.9
Flour mill and silo project	-	18.3	18.3
	<u>3.4</u>	<u>24.3</u>	<u>27.7</u>
Sub-total of the Ministry of Commerce and Industry	3.4	24.3	27.7
Industrial Studies and Development Centre	5.4	1.9	7.3
Industrial Bank	12.2	-	12.2
	<u>71.5</u>	<u>172.6</u>	<u>244.1</u>
Grand total	71.5	172.6	244.1

^{*/} Allocations to the Government agencies concerned with industrial development.

Some of the above-mentioned projects are subject to a high level of uncertainty both as to the economic feasibility and the time it will take to implement them, if they are found to be feasible. It is, however, assumed that those under the headings "Projects under construction" and "Projects approved" will be implemented before the end of the plan period. For the other projects (feasibility studies proposed or in progress) it is assumed that the aluminium and the Saudi Arabian Mineral Exploration Company's projects will be implemented during the plan, but not the petrochemical intermediate projects. As for the remaining projects, only one third will reach the stage of implementation during the same period. These assumptions lead to the reduction of the amount which will be allocated to Petromin; the proposed financial allocation for the society will be as follows:

- 25% of the capital cost of projects will be raised by the domestic and foreign equity participation;
- 50% of the capital cost of projects will be raised by loans from the equity participants and bankers;
- the remaining 25% will be financed by Petromin and the Government.

(ii) Planned growth of electricity:

The objectives of development in this sector are:

- to meet the electric power requirements of the industrial sector at rate levels which do not inhibit growth;
- to meet the demand of other consumers at lower rates than exist at present;
- to improve and standardize existing services through institutional and technical changes;
- to encourage small-scale industrial and economic growth and provide better living conditions through a phased rural electrification programme.

Programmes:

Urban electric companies: The rapid expansion of the companies serving the areas of Jeddah, Mecca, Tayif, Medina, Riyadh, Al Hasa and Dammam/Al Khobar will continue. The generation is expected to total 1,500 million kwh at the end of the plan. This production will require an increase of the existing capacity by 1.6 times. The necessary generation for large-scale industries proposed by Petromin and perhaps of others in the private sector is not included in the above estimates. The Government will not request these organizations to take power from the available utility, but will serve as a co-ordinating agent and let each case be determined on the basis of comparative costs.

Rural community electrification: The programme proposes to electrify the most reasonably accessible towns of a population of 2,000 or more: it includes 80 towns at an estimated cost of \$20.7 million of which 25% is expected to be raised privately as share capital and the remainder is to be provided as long-term Government loans.

(iii) Planned growth of mining:

The Directorate General of Mineral Resources will carry out a programme of geological mapping, basic geological research and geochemical investigations.

Investigation of Main Mineral Deposits and Prospects During the Plan Period

<u>Name of deposit</u>	<u>Element of minerals</u>	<u>Further investigation</u>	<u>Estimated cost (000 \$ U.S.)</u>
Al Amar	Gold, copper, zinc	Underground sampling	222
Hadi Fatimah	Iron-ore	Drilling and re-check analyses in co-ordination with Petromin's development plan for the iron and steel industry	111
Ar Rokhan	Magnesite	Marketing and feasibility study regarding the required infrastructure	111
Thaniyat	Phosphate	Processing studies	56
Jabal Dhaylan	Lead, zinc, copper	Drilling to obtain an exploration guide for further work in coastal areas	133

Other deposits in Jabal Sayid, Nugrah (copper, gold, zinc, silver) and Adhbart (iron pyrite) have already interested some major mining companies which applied for exploration licences.

Future exploitation of minerals other than limestone and gypsum is expected to be possibly undertaken as joint ventures by foreign and domestic organizations. Petromin will participate in the development of mineral resources investigating the following projects:

Phosphate: Mining and beneficiation of phosphate rock at West Thaniyat; transport by a pipeline to the coast near Aqaba is considered. The production for export will be 2 million metric tons annually; 300,000 metric tons annually of P_2O_5 equivalent for the transformation into chemical phosphorus and 300,000 metric tons for phosphoric acid.

Gypsum: Mining near Aqaba for the production of sulphuric acid (300,000 metric tons annually) and cement (330,000 tons annually).

Copper: Mining and beneficiation for the export of the Jabal Sayid deposit.

Iron-ore: Mining and beneficiation of the deposits at Wadi Fatimah and Wadi Sawawin for export and for the use in the production of steel.

Concerning the iron and steel industries, Petromin plans to first expand the existing steel rolling mill at Jeddah so that it can run at its full capacity of 45,000 metric tons per year in order to expand this capacity to 100,000 metric tons per year, the third phase being the development of an integrated iron-ore mining and steel manufacturing industry.

- 307 -

The establishment of an aluminium plant with a capacity of 140,000 metric tons of ingots per year from imported alumina is being discussed with a foreign corporation.

Petroleum:

During the plan period an average annual increase of 9.1% is projected for both the petroleum production and refining.

The demand for refined petroleum products is expected to increase by 100% in the western province and by 70% in the remainder of the country during the plan period. Petromin plans to meet this growth by building a second refinery in Jeddah and a new one in Riyadh.

Production Forecast for the Domestic Demand and Consumption of Refinery Products

(000 barrels)

	<u>Production</u>					
	<u>Jeddah</u>		<u>Riyadh</u>		<u>Ras Tanura</u>	
	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>
Liquefied petroleum gas	33	500	-	310	560	636
Motor gasoline	752	3,000	-	2,250	3,423	1,654
Kerosene	436	800	-	436	541	192
Aviation fuel	-	1,300	-	-	-	-
Diesel fuel	690	3,150	-	1,612	3,125	2,607
Fuel oil	1,200	1,160	-	-	-	825
Asphalt	-	300	-	-	n.a.	n.a.

Consumption
(000 barrels)

	<u>western province</u>		<u>Other provinces</u>		<u>Total</u>	
	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>
Liquefied petroleum gas	149	446	444	1,000	593	1,446
Motor gasoline	1,972	3,451	2,203	3,453	4,175	6,904
Kerosene	514	828	463	600	977	1,428
Aviation fuel	620	1,246	445	966	1,065	2,212
Diesel fuel	1,847	3,681	1,968	3,688	3,815	7,369
Fuel oil	669	1,160	510	825	1,179	1,985
Asphalt	88	142	n.a.	n.a.	n.a.	n.a.

Petromin will build new bulk plants to improve the distribution of refined products.

An agreement has been made between Petromin and a foreign company to establish a lubricating oil-blending plant on the Jeddah industrial site. The basic stock will initially be shipped from abroad and from Ras Tanura. Later on the plant will undertake the local production. A pipeline from Uthmania to Riyadh to supply natural gas for the domestic and industrial consumption will be constructed by Petromin; its initial capacity will be of 538,000 m³ per day with the possibility of an increase of 1,982,000 m³ per day. It is expected to come into operation in 1973.

(iv) Priority of sectors:

The programmes and projects to be undertaken during the plan period are presented in the following list:

- petroleum refining, projects for refineries, bulk storage and blending of lubricating oil;

- 309 -

- petrochemical and fertilizer industries;
- the surveying of the exploration and exploitation of minerals;
- basic metal industries;
- manufacturing industries other than the ones mentioned above;
- construction industry.

(v) Infrastructure connected with industry:

Well drillings and the development of other sources of water for non-agricultural use will receive priority during the plan period.

The length of main roads constructed during the plan period will total 4,312 km. The study of a feeder road programme will be completed, about 900 km of these roads, as well as 2,000 km of rural roads will be constructed by the end of the plan period.

The construction programmes now under way at Jeddah and Damman plus the additional expansion proposed for Damman will provide a sufficient capacity at these two major ports for the rest of the century. The current Jaizan port expansion will be completed and an extension of the Yanbu port (Red Sea) will be undertaken, if economically feasible. Studies are now in progress to determine which other Red Sea minor ports should be developed during the plan period.

Improvements will be made on buildings of 11 existing airports, 7 of which will cater for jet aircraft, making a total of 15 airports with jet service in the country. A study to relocate the Jeddah airport out of the urban area will be completed during the plan period.

A study will be undertaken to consider the long-term role of the railway in the country's transportation network.

The efforts for the completion of industrial estates in Riyadh, Jeddah and Damman will continue and feasibility studies will be conducted for the establishment of more zones in other parts of Saudi Arabia.

The construction sector is expected to grow at 10.4% per annum over the plan period.

(vi) Relationships with non-industry sectors of the economy:

The sectoral plan focuses on an increasing agricultural output at about 27% during the plan period which corresponds to an increase of 4.9% annually. This target will be reached by increasing the yields of wheat and vegetables through an improved technology, by the use of fertilizers and through the mechanization and modernization of farms. The increase of livestock production, including a 47% increase in meat production, will reflect larger forage supplies resulting from a better range of the management and from increases in the alfalfa production.

The lending programme of the Agricultural Bank will be quadruplicated during the plan period.

5. Planned industrial projects:

Some Projected Industries for the Plan Period 1970-1975

<u>ISIC</u> -	<u>Subsectors, industries and production</u>	<u>Estimates of capital requirements (000 \$ U.S.)</u>
	Food and beverages	
201	A slaughter house and a meat-packing plant producing 1,500 metric tons of meat annually (Mecca - Tayif area)	0.735

Some Projected Industries for the Plan Period 1970-1975 (cont.)

<u>ISIC -</u>	<u>Subsectors, industries and production</u>	<u>Estimates of capital requirements (000 \$ U.S.)</u>
202	Expansion of the Al Khobar, Riyadh and Jeddah manufactures of milk and milk products; establishment of additional plants for the manufacture of ice-cream, yogurt and other dairy products	1.197
203	A plant for processing and canning 825 metric tons of vegetables	0.577
203	Tomato processing industry producing 5,875 metric tons of paste and 600 metric tons of juice per year	1.355
204	An additional fishing enterprise for packing and shipping, expansion of the existing firm in Damman	3.166
205	A rice milling facility producing 3,000 metric tons per year (eastern province)	0.247
206	A manufacture producing 520 metric tons of biscuits and crackers annually	0.286
207	A date syrup plant capable of processing 5,000 metric tons of dates annually (eastern province)	0.591
209	Macaroni and vermicelli plant, 600 metric tons per year	0.248
209	The animal feed mill will be expanded (eastern province) and the establishment of another one (western province) is foreseen	0.388
312	Two vegetable ghee processing plants producing 12,000 metric tons per year	2.177
	Textiles and wearing apparel	
231	A mill for the weaving of cotton textiles using imported cotton yarn with a capacity of approximately 14.6 million metres	5.430
244	A canvas cloth manufacture with an annual capacity of 500,000 metres	0.413
391	A plant to manufacture annually 125 metric tons of surgical cotton, 1.2 million square metres of bandages and 1 million packets of sanitary napkins (Damman)	0.333

Some Projected Industries for the Plan Period 1970-1975 (cont.)

<u>ISIC</u> -	<u>Subsectors, industries and production</u>	<u>Estimates of capital requirements (000 \$ U.S.)</u>
	Furniture and fixtures	
260	Expansion of the existing door and window manufacturing units	0.450
260	Metal furniture - expansion of the existing units (Jeddah, Riyadh)	1.444
260	Wooden furniture - expansion of the existing units	0.466
	Paper products and printing	
272	Extension of the paper industry to produce 100 million cardboard boxes annually (Jeddah)	0.764
280	Expansion of existing printing establishments	2.000
	Leather and leather products	
291	A skin-pickling plant capable of processing 300,000 sheep and goat skins per year (Jeddah - Mecca)	0.473
	Rubber and plastic products	
300	Two tire retreading plants with an annual capacity of 20,000 tires	0.145
399	Expansion or establishment of a new plant with an additional annual capacity of 2,000 metric tons	0.640
	Chemicals and chemical products	
313	A paint plant to produce 95,000 litres per year	0.172
319	Expansion of the existing detergent plant (Jeddah)	1.333
319	Pharmaceutical production of 200 million tablets per year (Jeddah)	0.717
	Cement and non-metallic products	
334	Expansion of existing cement plants, additional capacity of 6,000 metric tons per year	16.444
339	A concrete plant with an annual capacity of 150,000 posts of various sizes	0.300
330	A plant for ready-mixed concretes with an annual capacity of 10,000 metric tons	0.488

Some Projected Industries for the Plan Period 1970-1975 (cont.)

<u>ISIC</u> -	<u>Subsectors, industries and production</u>	<u>Estimates of capital requirements (000 \$ U.S.)</u>
Metals and metal products		
342	A plant to manufacture aluminium extrusions - 1,500 metric tons per year	2.777
350	Production of 20,000 gas-stoves per year	0.128
350	Enamelware: production of trays, dishes, coffee and teapots, etc. with an annual capacity equivalent of 500 metric tons	0.555
350	A plant to manufacture wire-mesh with an annual capacity of 1,500 metric tons per year	0.382
Machinery, appliances and maintenance		
360	General purpose foundry: expansion of existing units with an annual capacity of 6,000 metric tons	395.000
360	A plant to produce 6,000 units of air-conditioners, refrigerators and refrigerator cases per year	822.000
370	Electric fans: a plant with an annual capacity of 10,000 units	146.000
370	A plant to produce 120 metric tons of insulated wire per year (Jeddah)	142.000
370	A plant to produce 3 million dry cell batteries	711.000
Transport equipment, supplies and repairs		
381	Boats: expansion of the four existing establishments in the western region (Jeddah)	500.000
383	Wood-stake truck bodies: a plant to produce 2,000 bodies annually for installations on trucks with a varying capacity of 2 to 7 tons (Jeddah)	403.000
385	A plant to produce annually 12,000 bicycles	234.000
370	A plant to produce 24,000 automobile batteries per year (Dammam)	256.000
Unclassified industries		
332	Glass bottles: a plant to produce 20 million units per year	1,500.000
	Electric light bulbs: a plant with an annual capacity of 11 million bulbs	484.000
	Total required	5,639.821

Petrochemicals and fertilizers:

Petromin is preparing plans for the production of the following products:

Sulphur: A joint stock company has been set up with the Jefferson Lake Sulphur Company to establish a plant for the extraction of sulphur from crude oil in Abqaiq. It is expected to start operation late in the second year of the plan to produce 190,000 metric tons of lake sulphur during the first year to reach 225,000 metric tons annually. The Jefferson Lake Sulphur Company will market sulphur internationally.

Sulphur acid: A production plant is being constructed in Damman. It is expected to produce at full capacity 16,500 metric tons annually.

Petrochemical intermediates:

An agreement with ANIC-PHILIPS was reached for the production in Damman of ethylene (182,000 metric tons/year), propylene (96,000 metric tons/year), butadiene (10,000 metric tons/year) and other by-products from the Abqaiq natural gas fields. Production will start at the end of the plan.

Ammonia: A project for the production in Damman of 330,000 metric tons of anhydrous ammonia per year from natural gas is being evaluated.

Urea: The possibility of expanding the SAFCO urea plant in Damman or of establishing a second plant will be studied as part of the plan.

Phosphoric acid: The production from rock phosphate is being studied.

Potash: A project for the evaporation of sea water at Tarut Bay is being studied with a production of 100,000 metric tons/year during the first stage and subsequently magnesium (20,000 metric tons/year) with chlorine (56,000 metric tons/year) and salt (1 million metric tons/year) as annual by-products.

6. Organizational and institutional changes required for industrial plan implementation:

The Industrial Studies and Development Centre plans to expand its programme through the addition of a management training unit for the benefit of the private sector; services to be provided will include advice on:

- the plant selection and layout;
- the production methods, control and management;
- sales and marketing;
- cost accounting;
- project planning, evaluation and implementation.

The Industrial Studies and Development Centre plans to publish an investment guide for industrial investors and to update it annually.

Petromin:

It is proposed to convert the organization into a joint-stock company with an authorized capital of \$222 million and paid up capital equal to investments already made in order to facilitate negotiations with foreign investors. The adoption of a formal capital structure will require the transfer of industrial and commercial activities presently operated as departments of Petromin to subsidiary companies. Other institutional developments proposed for Petromin are:

- the improvement of project evaluation for project planning, implementation and follow-up;
- the establishment of a management workshop for the development of high-level personnel;
- the creation of an international trading and marketing company to market internationally those products produced by Petromin and its related enterprises;
- the exploration of the possibilities to start an investment financing company to channel public subscriptions into Petromin's projects.

The mining industry will be stimulated by the following measures:

- the review and, where necessary, the revision of the Mining Code and the Foreign Capital Investment Regulation;
- the promotion of joint ventures on a cost-sharing basis with foreign mining companies.

The pricing policy is in line with the current practices in Saudi Arabia and will be applicable to industries that qualify for the encouragement under the Regulation for Protection and Encouragement of National Industries.

The Directorate General of Mineral Resources (DGMR) will take over the responsibilities performed by foreign technical missions in recent years; all major decision-making and operations should be transferred to the Directorate by the end of the plan, making it primarily responsible for the implementation of the national policy for the mineral development and for long-term geological mapping.

The organizational changes proposed for the Directorate General of Mineral Resources are:

- the creation of a Cost Control Unit to provide data for the use in planning the exploration work and in general management;
- the creation of a Data Service Department to compile, store and retrieve data, including information collected by the foreign missions;
- the replacement of the present Mines Department by an Inspectorate of Mines to advise the minister on mining concessions and regulations, to prepare permits, licenses and concessions, to examine proposals from mining companies to inspect mining, and to give advice to potential Saudi Arabian operators;
- the disbandment of the present Chemistry Department.

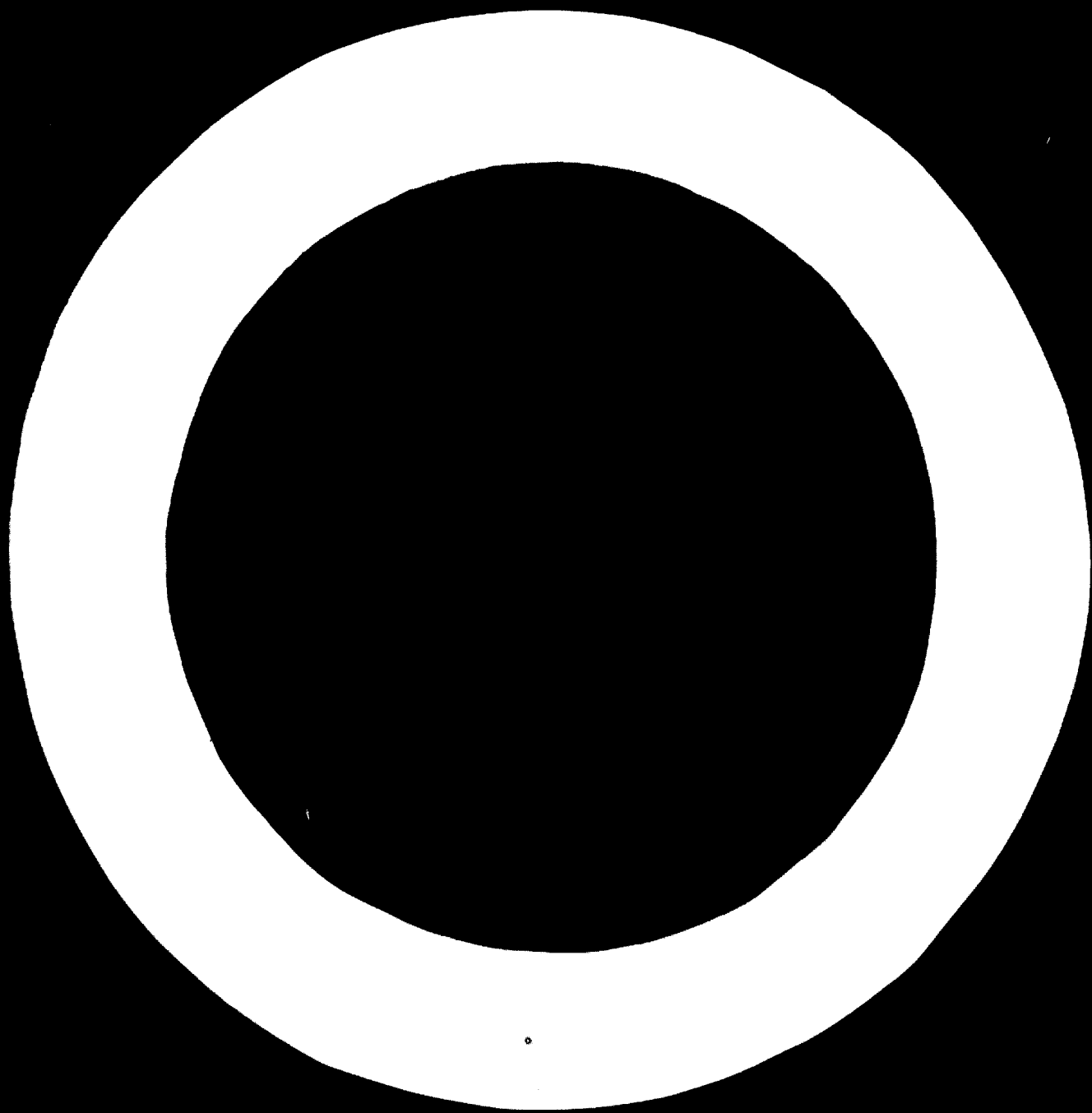
- 317 -

A new quasi-governmental organization is to be established under Petromin, provisionally identified as the Saudi Arabian Mineral Exploration Company (SAMEX). The establishment of this organization is subject to the results of a feasibility study. The Saudi Arabian Mineral Exploration Company is expected to perform the following functions:

- complete a more detailed mapping and investigate the mineral areas;
- review the geophysical work performed by the Arabian Geophysical and Surveying Company (ARGAS);
- perform assessment work (shaft sinking, bulk sampling and ore calculations);
- arrange for ore-dressing tests and marketing investigations;
- participate with a foreign mining venture and national private capital in the exploration of mineral prospects.

7. Problem areas particular to the industrial sector:

- shortage of skilled manpower and dependency on foreigners;
- shortage of medium and short-term credits;
- uncertainties about the future petroleum production and prices due to factors beyond Saudi Arabia's control;
- difficulties and uncertainties associated with the implementation of such large-scale industry programmes (petrochemical, fertilizer and steel enterprises).



SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF
THE SUDAN: 1970 - 1975 ^{*/}

I. General background information

II. Summary of the industrial development plan

*/ The Five-Year Plan of Economic and Social Development
1970-1975, Volume I, Ministry of Planning, Khartoum, 1970,
116 pp.

BIBLIOGRAPHY

- K.M. Barbour: "The Republic of the Sudan", London, 1967.
- L.A. Fabunni: "The Sudan in Anglo-Egyptian Relations", London and New York, 1960.
- K.D.D. Henderson: "The Sudan Republic", London, 1965.
- R. Hill: "Sudan Transport: A History of Railway, Marine and River Services", OUP, 1965.
- P.M. Holt: "A Modern History of the Sudan", New York, 1961.
- J.H.G. Lebon: "Land Use in Sudan", Bude, 1965.
- Beshir M. Said: "The Sudan", London, 1965.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Sudan:Area:

Total	23,760,000 km ²
Agricultural area of which:	3,110,000 km ²
Arable and permanent crops	710,000 km ²
Meadows and pastures	2,400,000 km ²
Forested area	9,150,000 km ²
Uncultivated area	11,150,000 km ²

Major cities:

	<u>Population in 1964</u>
Khartoum	135,000
Omdurman	167,000
El Obeid	60,000
Khartoum North	58,000
Port Sudan	57,000

Other data:

	(1969)
Cement production (000 tons)	140.7
Electricity consumption	195.3 million kwh/h
Annual electricity production	528.0 million kwh

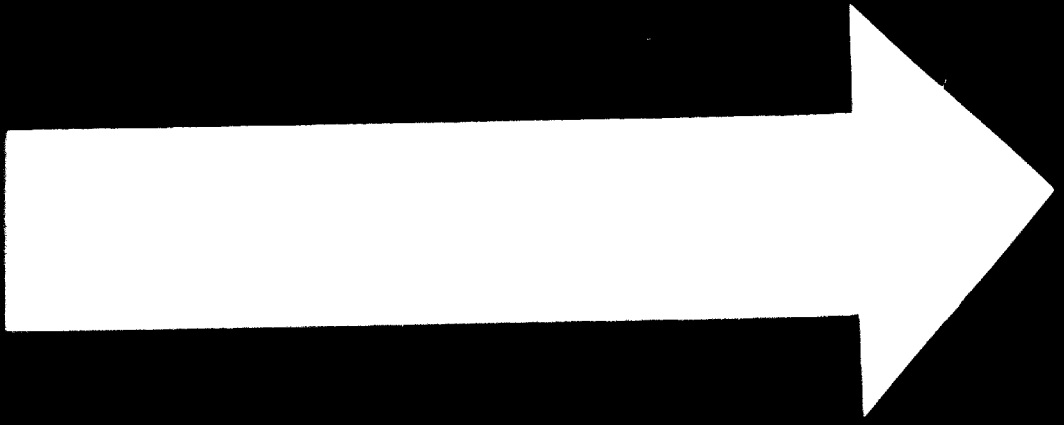
Exchange rates: (1971)

Unit	<u>Sudanese Pound equivalent</u>
US dollar	0.348
Pound sterling	0.836
Swiss franc	0.081
French franc	0.063
German mark	0.094
Italian lira (100)	0.056

2. Population:

	<u>1967-1968</u>	<u>1968-1969</u> ^{*/}	<u>Average annual increase</u>
Total population (000)	14,504	14,939	3.0%
Total employment (000)	n.a.	4,844	n.a.
Employed population as % of total	n.a.	32.4	

^{*/} economically active population.

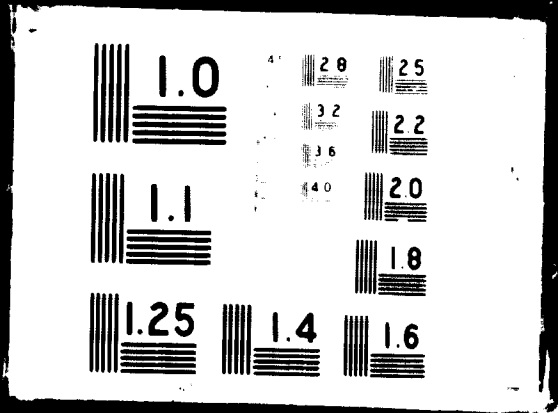


22.7.74

7 OF 10

DO

4997



Employment in Manufacturing 1968-1969

Food processing, beverages and tobacco	13,639
Yarn and textile industries, clothes and footwear	8,962
Wood and cork manufactures and furniture	1,900
Paper, paper products and printing	2,301
Leather and leather products	n.a.
Rubber products	n.a.
Chemicals and petroleum	2,615
Non-metallic products	n.a.
Basic metals	n.a.
Metal products (except machinery)	n.a.
Maintenance and repair of machinery	n.a.
Maintenance and repair of electrical machinery	n.a.
Maintenance and repair of transport machinery	n.a.
Miscellaneous	4,625
Total	<u>34,042</u>

Education:

Third Level Education 1966
% Distribution by Field of Study

<u>Total</u>	<u>Humanities, Law, social fine arts</u>	<u>sciences</u>	<u>Natural sciences</u>	<u>Engineering, medicine and agriculture</u>
100	23	39	10	28

3. GDP:

	<u>1964-1965</u>	<u>1969-1970</u>	<u>Average annual increase</u>
Industrial GDP/capita (\$)	7.0	9.5	6.3%
Total GDP/capita (\$)	97.0	104.5	1.6%
Population (000)	13,260	15,500	2.8%
Industrial GDP (million \$ U.S.)	92.6	145.9	9.4%
Total GDP (million \$ U.S.)	1,286.0	1,620.0	4.7%
Industrial GDP as % of total GDP	7.2	9.0	

GDP Structure

	<u>1964-1965</u>	<u>1969-1970</u>
Agriculture, including forestry and fishing	39.8%	41.7%
Industry	7.2%	9.0%
Building and construction	5.0%	4.4%
Transport and communications	6.5%	6.0%
Trade and commerce	15.4%	15.3%
Government and private services	15.5%	14.2%
Other	10.6%	9.4%
	<u>100.0%</u>	<u>100.0%</u>

4. Macro-economic indicators:Money supply:

1966 - \$201 million
 1969 - \$275 million
 Average annual increase 11.1%

Prices (1963=100):

1966 - 103
 1969 - 116
 Average annual increase 4.2%

GDP:

1964-1965 - \$1,286 million
 1969-1970 - \$1,620 million
 Average annual increase 4.7%

Balance of Payments

(million \$ U.S.)

	<u>1966</u>	<u>1969</u>
Goods and services		
Trade balance c.i.f.	-54.3	-27.9
Investment income	-27.9	2.9
Services	-9.5	-14.6
Other	-16.9	-15.5
-	-	-
Transfers		
Private		
Central Government	-0.9	-0.6
-	2.6	-1.1
Capital		
Private		
Central Government	2.9	0.9
-	4.1	36.0
Deposit money banks		
Assets	0.3	-
Liabilities	0.6	-13.0
Monetary authorities		
IMF accounts	8.6	6.2
Foreign exchange	12.1	-0.6
Other assets	-	-
Other liabilities	-2.0	6.9
-	-1.4	-
Net errors and omissions	-0.9	-0.6

Central Budget Revenues and Expenditures
(million \$ U.S.)

	<u>1964-1965</u>	<u>1969-1970</u>
Revenues	211.7	408.3
Expenditures	208.9	405.4
Balance	+2.8	+2.9

The main sources of the Central Government Budget revenues are indirect taxes, consisting of export and import duties, excise duties and sugar monopoly profits.

5. Industrial products and technology - main manufacturing industries:

The manufacturing industry is oriented strongly towards import-substitution of consumer goods.

Development of manufacturing industry depends entirely on the importation of machinery and equipment and in certain cases on raw and packaging materials, such as plastics and cans.

Production of intermediate materials is limited to cement production and petroleum refining.

Food processing, beverages and tobacco account for 33% of value added in the manufacturing industry and for 40% of employment in that sector.

Textiles and leather industries account for 30.5% of the value added in the manufacturing industry and for 26.3% of employment in the same sector.

Around 80% of the manufacturing enterprises are clustered around the three towns' area, i.e. Khartoum, Khartoum North and Omdurman.

The manufacturing enterprises of both private and public sectors are operating under capacity; e.g. only 50% of the installed capacity in spinning and weaving factories are utilized, 75% of ready-made clothes and 60% of the shoe factories.

Industrial Production

<u>Commodity</u>	<u>Unit</u>	<u>1965-1966</u>	<u>1968-1969</u>	<u>Average annual increase</u>
Cement	000 tons	73.2	140.7	24.3%
Flour	000 tons	44.1	51.5	5.1%
Sugar	000 tons	25.0	81.4	48.3%
Soap	000 tons	18.8	19.3	1.0%
Wine	000 litres	1,254.8	1,453.0	4.8%
Beer	000 litres	7,487.5	7,159.0	-2.0%
Cigarettes	000 kilos	535.0	532.0	-0.3%
Matches	Billions	3.1	3.9	8.3%
Shoes	Million pairs	7.2	10.7	14.2%

Manufacturing Industry 1968-1969

ISIC Branch of industry	<u>Establishments Number</u>	<u>Employment Number</u>	<u>Production value Million \$ U.S.</u>	<u>Value added Million \$ U.S.</u>	<u>%</u>			
31 Food processing, beverages and tobacco	117	21.09	13,639	40.08	101.00	55.18	15.3	32.99
32 Textiles, leather and leather products	44	7.92	8,962	26.32	36.60	19.98	14.1	30.49
33 Wood and wood products	159	28.65	1,900	5.59	3.98	2.16	2.0	2.26
34 Paper and paper products, printing and publishing	20	3.60	2,301	6.76	6.50	3.55	3.1	6.79
35 Chemical industries	36	6.49	2,615	7.68	18.60	10.18	5.5	11.91
36 Mining and quarrying	24	4.32	1,034	3.03	4.90	2.87	2.2	4.69
37 Electrical appliances	155	27.93	3,591	10.54	11.10	6.08	4.1	8.87
Total	555	100.00	34,042	100.00	182.80	100.00	46.3	100.00

6. Industry - related resources and sectors:Forests:

Gum-arabic from acacia trees in the northern and eastern regions contributes 10% of the total exports and accounts for 80-90% of the world gum-arabic supply.

Main crops and livestock:

From 1965-1966 to 1969-1970, the agricultural production of long-staple cotton increased by 41.9%, of medium-staple cotton by 27.4%, of ground-nuts by 35%, of sugar-cane 4.8 times and of rice about 8 times. The increase has mainly been achieved by expanding the cropped areas and not by increasing the yield per hectare.

	Average yield for the last 10 years	Yield for 1968-1969	Yield for 1969-1970
	(in 100 kg per hectare)		
Dura	3.54	6.10	8.40
Dukhu	4.18	6.60	6.70
Ground-nuts	8.37	6.00	9.70
Sesame	4.14	3.45	3.70
Wheat	-	10.00	12.50
Long-staple cotton	12.40	15.00	15.18
Medium and short-staple cotton of which:	5.10	8.56	7.90*
on irrigated land	-	13.20	17.50
on rainland	1.10	1.20	1.20

* / Increase of medium-staple cotton in the Khashm El Girba project.

The increase in the livestock of 30% was not followed by a relative expansion of the fodder base, pasture irrigation and an improved veterinary service. The situation led to a high death-rate of livestock and to a relatively low marketable output of meat which increased only by 22%.

Development of the Livestock and Meat Production from
1964-1965 to 1969-1970

	<u>Unit</u>	<u>1964-1965</u>	<u>1969-1970</u>	<u>Average annual increase</u>
Cattle of which:	Million heads	9.4	12.3	5.5%
Cows	Million heads	2.8	3.7	5.7%
Sheep	Million heads	8.9	10.3	3.0%
Goats	Million heads	6.9	7.2	0.8%
Production of meat (dead weight)	000 tons	346.0	412.0	3.5%
Internal consumption of meat	000 tons	324.0	396.0	4.1%
Exports of meat and products of animal origin	Million \$ U.S.	14.5	2.5	-41.9%

Estimates show that the above livestock could provide for the output of up to 600,000 tons of meat per annum and bring the export figure of animal products to \$92 million.

Minerals and mining:

The geological and economic conditions for developing the mining industry are favourable, but no targets for the geological survey were envisaged in the plan. The existing mining industry is poorly developed; its production amounts to only 0.2% of GNP.

Fuels and power:

A co-ordinated power development plan does not exist. The capacity of power stations has been increased from 90.9 MW in 1964-1965 to 138.2 MW in 1969-1970; the length of 33-110 KW transmission lines has been doubled and totals 783 km; the power production increased by 76% between 1964-1965 and 1969-1970 and amounted to 393 million kwh.

Transport:

During the plan period no substantial success was achieved. Transport links are restricted to the country's economic area, especially to import-export operations. The profitability and efficiency of public transport decreased. The net profit in 1969-1970 was estimated at \$5.5 million against \$12.6 million in 1964-1965.

Main exports:

	<u>1966</u>		<u>1970</u>	
	<u>Million \$ U.S.</u>	<u>% of total exports</u>	<u>Million \$ U.S.</u>	<u>% of total exports</u>
Total exports				
of which:	212.6		307.4	
Cotton	100.6	47.2	177.6	57.7
Ground-nuts	21.0	9.8	23.0	7.5
Sesame seed	16.1	7.6	27.9	9.1
Gum-arabio	20.7	9.6	23.8	7.8
Oil-cake	13.2	6.1	18.4	6.0

Main imports:

Machinery and equipment account for about 24% of the total imports, food-stuffs for about 20%, textiles and ready-made clothes for 15%, metals and pipes for 7.7%, the remainder for miscellaneous minor quantities of goods.

7. Overall economic development strategy and policy:

The major economic problem of the Sudan has been and still is its excessive dependence on cultivation and export of a few agricultural products such as cotton. Broadening the Sudanese economic structure through the development of industries has been the core of the overall economic development strategy during the last decade. Thus, production of import-substituting articles and the expansion in exportable raw and semi-processed agricultural commodities were given certain attention.

- 331 -

As far as the industrial sector is concerned, the following steps were taken to accelerate the development of import-substituting industries:

- A declaration to encourage industrial development by the private sector was passed in 1956 "Approved Enterprises (Concessions) Act". Yet, it was evident that many industrial enterprises were confronted with certain impediments. Accordingly, new legislation was introduced, namely "The Organization and Promotion of Industrial Investment Act 1967" which repealed the first act and provided more concessions and protection and gave equal treatment to foreign industrial investment.
- The Ministry of Industry and Mining, created in 1966 was entrusted with the planning and implementation of the national industrial development strategy.
- The Industrial Bank of Sudan was established in 1962 to assist in the establishment, expansion and modernisation of private industrial enterprises and to encourage and promote the participation of private capital, both internal and external.

8. Regional co-operation:

Trade with Arab Countries During 1970

(million \$ U.S.)

	<u>Exports to</u>	<u>% of total exports</u>	<u>Imports from</u>	<u>% of total imports</u>
United Arab Republic	16.2	5.4	15.8	5.5
Saudi Arabia	6.3	2.1	0.5	0.2
Algeria	1.1	0.4	0.005	0.001
Lebanon	1.1	0.4	1.6	0.5
Jordan	0.9	0.3	0.03	0.01
Iraq	0.6	0.2	0.07	0.02

N.B.: Total exports during 1970 were \$298.4 million, and total imports \$287.5 million.

Reciprocal tariff preferences are exchanged with Egypt. Under this agreement a number of Egyptian products benefits from customs duty exemptions, while some others are granted customs duty reductions between 20% and 70%. The tariff preferences extended by Sudan on Egyptian products cover only customs duties and do not include concessions on the import surcharge (20% on c.i.f. value).

A similar agreement exists with the Syrian Arab Republic for a few items. Reverse preferences are granted to Sudanese exports of agricultural commodities, livestock and livestock products by both Egypt and the Syrian Arab Republic: in such cases Sudanese exports are granted duty-free entry. Commitments have been made to extend existing tariff preferences for certain imports of manufactured items from Egypt.

During the past years, bilateral payment arrangements with Czechoslovakia, Egypt, German Democratic Republic, Hungary, India and Poland were extended and associated with these were trade targets.

The trade agreement of 1969-1970 between the Sudan and the Union of Soviet Socialist Republics specified the export of 60,000 tons of cotton from the Sudan. 80% of the proceeds from these exports were to be spent on imports from the Union of Soviet Socialist Republics of certain capital and consumer goods. An agreement for 1970-1971, on similar basis terms, was concluded in January 1971. The amount of trade covered by the agreements for both years is valued at \$34 million of Sudanese imports and about \$43 million of exports.

Over the last five years, exports to countries with which the Sudan has had bilateral trade agreements or major trading agreements (CMEA countries, China, India, Egypt and Yugoslavia) have averaged 35% of total exports, and imports from these countries have averaged 32% of total imports. In 1969-1970 trade with these countries was 40% of exports and 34% of imports.

The Sudan signed the Arab Economic Unity Agreement in 1970 which aims at a gradual and complete economic unity among participating Arab countries through:

- the establishment of a unified duty zone;
- the free exchange of commodities and national products;
- the free movement of both capital and labour.

9. Systems for planning and plan implementation:

When "The Ten-Year Plan of Economic and Social Development, 1961-1962 to 1970-1971" was launched, the Cabinet decided that the following reorganization of the structure of the planning machinery and the composition of its various components and their functions should take place.

The Economic Council:

The Economic Council is responsible for the formulation of economic policy, the endorsement of the development plan and its annual budget before its submission to the Council of Ministers.

The Development Committee:

This Committee is presided by the Minister of Finance and Economics. Its terms of reference are as follows:

- to submit recommendations to the Economic Council on the development plan after considering the recommendations of the National Technical Planning Committee;
- to consider the annual development budget and any other supplementary funds which may be recommended by the Minister of Finance and Economics before their submission to the Economic Council for endorsement;
- to consider the reports submitted by the National Technical Planning Committee considered necessary. The reports relate to the execution of the development plan and to the progress attained by the executing bodies and the difficulties facing them.

The National Technical Planning Committee (NTPC):

The terms of reference of this Committee are:

- to assess the country's resources and to investigate the possibilities of increasing their availability to meet the requirements of the development plan;
- to prepare a draft development plan;
- to identify all factors necessary for the successful implementation of the plan;
- to make recommendations as regards the priorities to be allotted to each project in the plan;
- to recommend on the stages in which the plan is to be carried out, especially those to be included in any annual budget;
- to appraise the progress of the plan and to recommend any adjustments which may be necessary.
- The Committee should take into account the basic policy which the Government is adopting and the economic and social system which the Government is aiming to establish; it will take into consideration any directions made by the Ministerial Development Committee.
- The Committee has the right to appoint any functional sub-committee required.
- Provincial Councils will be responsible for the co-ordination of planning at the village, district and provincial levels. The Committee would, therefore, discuss the development plan with the Provincial Councils in so far as it affects the particular province. The Committee would also discuss with the Provincial Councils general problems, such as location of development schemes in all regions of the country, grouping of services, and standards of social services.

The Economic Planning Secretariat (EPS):

The Economic Planning Secretariat has been created under the Ministry of Finance and Economics. It is responsible for undertaking studies required by the National Technical Planning Committee as well as by the Development Committee.

10. Problems encountered through the previous plan period:

The production targets set in the Ten-Year Development Plan for the major industries , viz. sugar, cotton textiles, yarn, cement, fertilizers, insecticides and cigarettes have not been achieved. This was mainly due to the quick execution of the projects without conducting proper feasibility studies. Thus, the Ten-Year Plan's industrial projects were faced with the following problems:

- the wrong selection of the project site;
- the inavailability of raw materials in sufficient quantities;
- the absence of forward and backward linkages and the malutilization of the by-products;
- the negligence of the distribution problems and the insuitability of the products to the consumer demands.

All these problems resulted in over-expenditures and under-utilization of installed capacities; hence plan targets were not met.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1975

1. General goals and objectives:(i) Planned growth:

	<u>1969-1970</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Industrial GDP/capita (\$) *	9.5	13.2	6.8%
Total GDP/capita (\$)	104.5	136.7	5.5%
Population (000) **	15,500	17,500	2.5%
Industrial GDP (million \$ U.S.) *	145.9	229.8	9.4%
Total GDP (million \$ U.S.)	1,620.0	2,392.4	8.1%
Industry % of total GDP *	9.0	9.6	
Domestic consumption (million \$ U.S.)	n.a.	n.a.	n.a.
Investment (million \$ U.S.)	756.8	1,062.6	7.0%
Exports (million \$ U.S.)	307.6	518.8	11.1%
Employment (000)	8,620	9,570	2.1%

*/ Figures for manufacturing not available.

**/ The population figure was derived from the total GDP and total GDP/capita which were indicated in the plan.

(ii) Other objectives:

The general objectives are:

- to raise the Government revenues at an average annual rate of 11.9%;
- to raise agricultural GDP by 77.3%;
- to create a marketable livestock and increase the volume of livestock production by 75.5% in terms of GDP;
- to introduce new types of industrial products and to meet domestic requirements entirely through national production;

- to implement an extensive programme of public capital investments to develop economic and social services,
- to increase the volume of public capital investments for education and culture by 60%, health by 82%, and public utilities by 58%, apart from the investments of Local Councils and Ministries;
- to develop urban and rural power networks;
- to expand exports and imports and to secure positive balance of trade and payments;
- to provide all cities, as well as villages, with electricity and drinking water;
- to guarantee full employment.

2. Strategy and policy:

(i) General:

The main strategy laid down by the plan is the diversification of the economy which is currently dependent on cotton.

In the field of agriculture and livestock, expansion and diversification of traditional crops will be undertaken to meet domestic demand and to achieve a rapid growth of exportable agricultural and livestock products.

In the field of industry, efforts will be made to achieve full utilisation of existing idle capacities, both in the private and public sectors; new industries will be established oriented towards import-substitution of agricultural origin, consumer goods (for example textiles, food, beverages, etc.) for which raw materials are locally available.

Measures will be taken to tap available mineral resources as a raw material source for industries and as a potential source of foreign exchange earnings.

(ii) Manpower and productivity:

Education:

As from 1970-1971, a new system of education is to be introduced. The education process will consist of three stages: 6 years of primary, 3 years of secondary, and higher secondary education. The last stage is subdivided into two types: 3 years of academic (1 year general academic studies and 2 years specialization in arts or science), vocational and technical study.

Primary school teachers will be trained by secondary school teachers.

An anti-illiteracy campaign will be started.

Number of Pupils at General Education Schools

(000)

	1969-1970 estimated	1974-1975	Average annual increase 1969/1970- 1974/1975
Primary schools	697.7	1,195.0	11.3%
General secondary schools	63.2	98.0	9.2%
Higher secondary schools	22.1	37.0	10.8%
Total	783.0	1,330.0	11.2%
First year intake			
Primary schools	183.6	235.0	5.1%
General secondary schools	27.3	34.6	4.9%
Higher secondary schools	8.7	11.8	6.3%
Number of graduation pupils			
Primary schools	34.4	162.6	36.3%
General secondary schools	10.7	30.9	23.6%
Higher secondary schools	6.2	10.5	11.1%
Number of students at primary teacher training centres	1.91	(1973-1974) 2.58	7.8%
Number of students at illiteracy eradication circles	61.2	500.0	51.6%

Higher Education Development For 1970-1971 - 1974-1975

	<u>1969-1970</u> <u>estimated</u>	<u>1974-1975</u>	<u>Average</u> <u>annual</u> <u>increase</u> <u>1969/1970-</u> <u>1974/1975</u>
Total intake to higher educational institutions of which:			
University of Khartoum	2,269	2,810	4.4%
	1,218	1,350	2.1%
Total turn-out from higher educational institutions of which:			
University of Khartoum	1,369	2,078	8.7%
	628	983	9.3%
Total number of students in higher educational institutions of which:			
University of Khartoum (except),	6,984	9,565	6.5%
Cairo University, Khartoum Branch	4,031	5,380	5.9%
Intake	1,612	1,200	-6.0%
Turn-out	389	475	4.1%
Number of students	5,098	6,444	4.7%

- 341 -

Expansion of training specialists for economic sectors and social services is envisaged.

Vocational training:

Four new vocational-technical schools will be built under the auspices of the Ministry of Labour in Kosti, Wau, El Obeid and Port Sudan.

On-the-job training of skilled labour will be promoted.

The Ministry of Labour plans evening courses in various regions.

Number of Trainees

	<u>1969-1970</u>	<u>1974-1975</u>
Ministry of Labour	914	1,900
Sudan railways	140	225

Employment

(000)

	<u>1969-1970</u>	<u>Engaged in production</u>	<u>1974-1975</u>	<u>Engaged in production</u>
Urban areas	980	520	1,250	670
Rural areas	<u>7,640</u>	<u>5,900</u>	<u>8,320</u>	<u>6,400</u>
Total	8,620	6,420	9,570	7,070

For seasonal work, additional workers will be recruited.

Part of the workers will be settled in newly-developed areas.

(iii) Investment and capacity utilisation:Capital Investments
(million \$ U.S.)

	1965/1966- 1969/1970	1970/1971- 1974/1975	Average annual increase	% share 1965/1966- 1969/1970	% share 1970/1971- 1974/1975
Public sector	395.5	574.4	7.7%	100.0	100.0
Private sector	361.3	488.2	6.2%	48.0	46.0
Total	756.8	1,062.6	7.0%	100.0	100.0

Capital Investments of Public Sector
(million \$ U.S.)

	1965/1966- 1969/1970	1970/1971- 1974/1975	Average annual increase	% share 1965/1966- 1969/1970	% share 1970/1971- 1974/1975
Agriculture	137.6	220.1	9.9%	34.8	38.3
Industry	25.3	75.8	24.6%	6.4	13.2
Power	35.9	36.8	0.6%	9.0	6.4
Transport and communications	69.5	85.1	4.1%	17.6	14.8
Education and culture	24.1	41.9	11.7%	6.1	7.3
Health	13.2	24.1	12.7%	3.4	4.2
Public utilities	24.1	37.4	9.3%	6.1	6.6
Halfa resettlement	12.9	-	-	3.3	-
Central administration	15.5	18.5	3.4%	4.0	3.2
Unallocated	-	6.6	-	-	1.1
Technical assistance and grants	37.3	28.1	-5.9%	9.3	4.9
Total	395.4	571.4*	7.7%	100.0	100.0

Capital Investments of Private Sector
(million \$ U.S.)

	1965/1966- 1969/1970	1970/1971- 1974/1975	Average annual increase	% share 1965/1966- 1970/1971-	% share 1970/1971- 1974/1975
Agriculture	36.8	76.1	15.6%	10.2	15.6
Industry	50.8	68.9	6.3%	14.0	14.1
Housing	203.3	226.3	2.1%	56.3	46.4
Road transport	64.0	89.0	6.8%	17.7	18.2
Education	2.0	20.7	-44.0%	0.6	4.2
Health	4.3	5.2	10.8%	1.2	1.1
Miscellaneous		2.0			0.4
Total	361.2	488.2	6.2%	100.0	100.0

Sources of Public Capital Investment
(million \$ U.S.)

	1965/1966- 1969/1970	1970/1971- 1974/1975	% share 1965/1966- 1970/1971-	% share 1970/1971- 1974/1975
Internal sources	188.1	301.6	48.0	52.0
Foreign sources	207.4	272.8	52.0	48.0
Total	395.5	574.4	100.0	100.0

Building material and equipment for the public sector will be provided through loans, credits, technical assistance, and imports and for the private sector through imports.

(iv) Interconnections between growth factors:

Investment/GDP Ratio

<u>1969-1970</u>	<u>1974-1975</u>
0.47	0.44

Export/Import Ratio

<u>1965</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
0.93	0.93	1.02	1.05	1.09	1.14	1.14	1.13

3. Data bases and projections:

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

Growth of Industrial Production
(million \$ U.S.)

	<u>1969-1970</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Large industries	48.2	175.2	29.4%
Small industries and handicrafts	41.6	48.8	3.2%
Local building materials and services	6.3	7.2	2.7%
Total	<u>146.1</u>	<u>231.2</u>	<u>9.4%</u>

Volume of Major Industrial Output

	<u>Unit</u>	<u>1969-1970</u> <u>provisional</u>	<u>1974-1975</u> <u>increase</u>	<u>Average</u> <u>annual</u> <u>increase</u>
Cement	000 tons	150.0	300.0	14.9%
Oil products	000 tons	890.0	1,070.0	3.7%
Cotton lint	000 tons	236.0	457.0	14.2%
Cotton textiles	Million metres	91.0	180.0	14.6%
Footwear	Million pairs	12.0	18.0	8.4%
Soft leather	000 square metres	210.0	1,150.0	40.6%
Hard leather	Tons	170.0	2,300.0	6.2%
Pickled skin	000 pieces	690.0	3,150.0	35.2%
Ready-made clothes	000 pieces	2,239.4	4,593.6	15.4%
Knitting	000 pieces	2,756.2	7,464.6	22.0%
Leather haberdashery	000 pieces	301.5	430.6	7.4%
Textile haberdashery	000 pieces	760.8	861.3	2.5%
Sugar	000 tons	80.0	130.0	10.1%

Production increase will be due to better capacity utilization of existing enterprises, the start-up of new projects, and better utilization of raw materials.

Growth of Per Capita Output of
Manufacturing Branches

	<u>Unit</u>	<u>1969-1970 estimated</u>	<u>1974-1975</u>
Cotton textiles	Metres	6.20	10.00
Footwear	Pairs	0.80	1.00
Ready-made clothes and knitwear	Kilogramme	0.32	0.69
Sugar	Kilogramme	6.50	7.40
Vegetable oil	Kilogramme	4.60	9.50
Canned fruit and vegetables	Conventional cans	0.15	1.30

- 347 -

Pattern of Import Commodities
(million \$ U.S.)

<u>Commodities</u>	1970 estimated		1975	
	<u>Amount</u>	<u>% share</u>	<u>Amount</u>	<u>% share</u>
Machinery and equipment	71.8	23.8	109.1	23.9
Rolled metal	13.1	4.3	22.1	4.8
Hardware	9.2	3.0	12.9	2.8
Rolled aluminium	0.9	0.3	2.9	0.6
Crude oil	11.5	3.8	16.7	3.6
Oil products	13.8	4.6	24.1	5.2
Sawn timber	3.7	1.2	11.5	2.5
Chemicals	3.4	1.1	5.2	1.1
Fertilizers	5.7	1.9	16.7	3.6
Insecticides	5.5	1.8	11.5	2.5
Glass and glassware	2.5	0.8	4.9	1.0
Paper and paper products	4.0	1.3	5.7	1.2
Tyres and tubes	4.3	1.4	7.2	1.6
Textiles	39.0	12.9	57.4	12.5
Cotton	23.0	7.6	30.2	6.6
Silk, other	16.0	5.3	27.3	5.9
Ready-made clothes	6.3	2.1	8.6	1.9
Yarn	2.6	0.9	4.3	0.9
Jute sacks	10.0	3.2	11.5	2.5
Footwear	1.7	0.6	2.9	0.6
Flour	6.6	2.2	-	-
Wheat	4.0	1.3	-	-
Rice	0.9	0.3	-	-
Sugar	11.4	3.8	16.1	3.5
Tea	12.3	4.1	18.7	4.1
Coffee	6.0	2.0	10.0	2.2
Milk and milk products	2.3	0.8	-	-
Canned fruit and vegetables	2.9	1.0	-	-
Tobacco products	2.9	1.0	4.6	1.0
Pharmaceutical products	6.9	2.3	11.5	2.5
Perfumery	2.3	0.8	4.3	0.9
Miscellaneous	34.5	11.4	59.4	13.0
Total	302.0	100.0	459.8	100.0

(ii) Planned growth of electricity:

	<u>1969-1970</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Capacity of power station (MW)	138.2	253	12.8%
H.E. stations (MW)	29	113	31.3%
Power generation (million kwh)	393	655	10.7%
Length of power transmission lines			
33-220 KV (km)	783	1,923	19.7%
11 KV and under 11 KV (km)	6,426	10,970	11.2%

\$40.2 million will be allocated for developing power generation.

The following projects will be executed:

- completion of the first stage of Roseires H.E. station with three units of 90 MW total capacity put into operation in 1970-1972;
- completion of 220 KV power transmission lines of 483 km from Roseires to Khartoum and reducing transformer sub-stations in 1971;
- construction of 66 KV power transmission lines of 150 km from Roseires to Khashm El Girba;
- development of power networks in new residential areas of Khartoum and other towns;
- extension and new construction of diesel power stations of 25,000 KW total capacity in Port Sudan, El Obeid and other areas;
- execution of major works on developing power networks and electrification of vital irrigated agricultural areas (Gezira, Rahad, etc.);
- development of C.E.W.C.'s production base on reinforced concrete supports and steel structures and provision of power network construction with essential equipment.

(iii) Planned growth of mining:Growth of Mineral Output
(000 tons)

	<u>1969-1970</u> <u>estimated</u>	<u>1974-1975</u>	<u>Average</u> <u>annual</u> <u>increase</u>
Iron-ore	26	100	30.9%
Manganese ore	3	7.5	20.3%
Chromites	29	74	20.6%
Salt	71	178	20.7%
Gypsum	10	25	20.1%
Magnesite	4	10	20.1%

Geological forecasts for survey, prospecting and increase of mineral output will be provided.

In 1972-1973 the first Government iron-ore mine with an annual capacity of 150,000 tons will be put into operation.

(iv) Priority of sectors:

(v) Infrastructure connected with industry:**Transportation:**

<u>Railways</u>	<u>Unit</u>	<u>1969-1970 provisional</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Tons carried	000 tons	3,000	4,600	8.9%
Cargo turn-over	Million tons/km	2,500	4,000	9.9%
Passengers	Million	985	1,170	3.5%
Turn around time of freight wagon	Days	9.9	8.9	-2.1%
Average daily mileage of main line diesel locomotive	Kilometres	267	320	3.7%

In 1975 over 70% of the total railway transportation (3,220,000 tons) will be carried out along the Khartoum-Port Sudan line.

The cutting of turn around time of freight wares in 1975 by one day as against 1970 shall effect a saving of capital investments for purchasing freight wagons to the amount of \$11.2 million.

\$115 million will be allocated to developing railways.

Major public projects will be the following:

- consolidation of railways' fixed installations, particularly along the Khartoum-Port Sudan route;
- equipment of passenger coaches and freight wagons;
- construction of a river port in Wadi Halfa and a bridge at Wau;
- extension of air strip at Khartoum airport;
- improvement of local air fields in two towns;
- acquirement of two ships of a 20,000-ton capacity and passenger airplanes.

<u>Other transportation</u>	Public investment 5-year plan period (million \$ U.S.)	Increase of operations 5-year plan period
Sea transport	10.3	45%
River transport	2.3	27%
Air transport	n.a.	40% (domestic rates)
Motor vehicle transportation	77.5	n.a.

Water Supply:

\$15.8 million will be invested for urban water supply.

Major projects are the extension of water intake, installations and pipelines in larger towns and laying of new pipelines.

	<u>Unit</u>	<u>1969-1970</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Capacity of pipelines	000 cubic metres/day	216.8	351	10.1%
Water supply	Million cubic metres/year	34.7	66	13.7%
Length of pipelines				
Main	Kilometres	490.0	741	8.6%
Distribution	Kilometres	2,150.0	3,030	7.1%

(vi) Relationships with non-industry sectors of the economy:Agriculture:

The plan provides a significant increase in irrigated areas by 726,000 Geddans (1 Geddans = 42 are) of new land (including 410,000 Geddans in the Rahad project).

A further 2,800,000 Geddans are to be developed for cultivation:

	<u>000 Geddans</u>
Gedaref	900
Blue Nil	550
Upper Nile	450
Nuba mountains	500
Darfur	400

The targets for the main crop production are as follows:

	Unit	Achieved in 1969-1970	Estimated for 1974-1975	Average annual increase
Long-staple cotton	000 kant.	3,541.0	7,450.0	16.0%
Medium-staple cotton	000 kant.	852.0	1,240.0	7.7%
Short-staple cotton	000 kant.	262.0	412.0	3.7%
Ground-nuts	000 tons	380.0	548.0	7.6%
Sugar-cane	000 tons	938.0	2,030.0	16.6%
Dura	000 tons	1,362.0	2,550.0	13.3%
Wheat	000 tons	163.0	560.0	27.9%
Rice (shelled)	000 tons	7.5	22.0	18.3%
Legumes (lubia, beans, peas)	000 tons	88.4	116.0	5.7%
Maize	000 tons	41.6	49.0	3.4%
Vegetables, melons, potatoes	000 tons	323.0	624.0	17.9%
Sesame	000 tons	200.0	240.0	3.7%
Dukhn	000 tons	383.0	397.0	0.8%
Castor	000 tons	19.8	31.5	20.1%

1 Kantas (small) = 99 pounds of lint cotton = 449 kg.

Measures for intensifying agricultural production:

- development of scientific research and seed propagation work;
- crop rotation and chemization;
- pest control;
- mechanization of agriculture;
- development of irrigation systems.

Animal husbandry:

Further increase of cattle and poultry breeding, growth of productivity and promotion of fodder base will be provided for.

Cattle routes, quarantines and disease-free zones will be established.

In 1975 Sudan expects to export 90,000 tons of beef compared with 15,000 tons in 1969.

Assistance will be rendered to farmers in organizing new agricultural co-operative societies.

Growth of Animal-Origin Products

	<u>Unit</u>	<u>1969-1970</u>	<u>1974-1975</u>	<u>Average annual increase</u>
Meat in dead weight	000 tons	421.0	650.0	9.0%
Milk	000 tons	1,040.0	2,440.0	18.5%
Eggs	Million pieces	500.0	700.0	7.0%
Wool	000 tons	10.2	12.4	4.1%
Fish	000 tons	23.2	35.0	8.6%

Consumption of Animal Products per Capita

		<u>1969-1970</u>	<u>1974-1975</u>
Meat and meat products	Kilogramme	25	32
Milk and milk products	Kilogramme	61	131
Eggs	Pieces	30	36

\$219.7 million will be allocated to agriculture and animal husbandry:

	<u>Million \$ U.S.</u>
Ministry of Agriculture and Forestry	21.8
Ministry of Animal Resources	9.3
Ministry of Co-operation and Rural Development	43.1
Ministry of Irrigation and Power	93.9
Ministry of Production and Agrarian Reform	41.6
Other agricultural units	10.0

Another \$74.7 million will be invested by the private sector.

5. Planned industrial projects:

Major projects financed by the public sector are:

- the construction of three tanneries;
- two ready-made clothes and one shoe factory;
- one jute and one spinning and weaving factory;
- two canning factories and one starch and glucose factory;
- iron-ore mine.

Ministry of Industry and Mineral Resources: The Distribution of Funds 1970-1971 - 1974-1975
Projects Initiated Before 1970

(000 \$ U.S.)

<u>Project</u>	<u>Total project cost</u>	<u>Project implementation programme</u>				<u>Fund requirements</u>			
		<u>Start</u>	<u>Completion</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	
Sudan Institutional Research Institute Foreign resources	1,091.4 143.6	1970/71	1973/74	459.5	608.9 143.6	14.4	8.6		
Geological Survey Dept. Foreign resources	8,874.4 4,221.8	1970/71	1974/75	1,866.8 1,033.9	2,182.7 1,091.4	1,579.6 718.0	1,608.3 746.7	1,637.0 631.8	
Topographical Survey Dept. Foreign resources	2,067.8 832.8	1970/71	1974/75	373.4	430.8 201.0	430.8 201.0	430.8 287.2	402.1 143.6	
Industrial Bank	5,744.0	1972/73	1974/75			1,436.0	1,866.8	2,441.2	
Industrial Development Corp. Babanousa Milk Collection Centres									
Foreign resources	798.4	1970/71	1970/71	798.4					
Karima Tomato Line Foreign resources	445.2 479.6 344.6	1970/71	1970/71	445.2 479.6 344.6					
Babanousa Cheese Line Foreign resources	370.5	1971/72	1971/72		370.5				
Warehousing and storage Foreign resources	2,332.0 890.3	1971/72	1974/75		244.1 203.9	534.2 229.8	775.4 459.5	818.5 143.6	
Foundry and machine shop Foreign resources	1,102.8 718.0	1971/72	1972/73		272.8 201.0	830.0	517.0		
Gunaid improvements Foreign resources	3,159.2 2,139.7	1970/71	1971/72	1,436.0 761.1	1,725.2 1,378.6				
Molasses plant Foreign resources	1,436.0 947.8	1973/74	1974/75				574.4 330.3	861.6 617.5	

Ministry of Industry and Mineral Resources: Time Distribution of Funds 1970-1971 - 1974-1975
New Projects

(000 \$ U.S.)

Project	Total project cost	Project implementation programme			Fund requirements			Remarks
		Start	Completion	1970/71	1971/72	1972/73	1973/74	
Khartoum, new tannery Foreign resources	5,235.7 3,590.0	1970/71	1971/72	1,713.3	3,468.4			
Sofaya iron-ore Foreign resources	1,338.3 761.1	1971/72	1972/73	1,146.8	2,441.2	666.3	672.0	359.0
Bricks and building materials Foreign resources	287.2 129.2	1971/72	1971/72			287.2	129.2	
Asbestos cement Foreign resources	697.9 603.1	1971/72	1972/73			697.9	603.1	
Ready-made clothes, Khartoum Foreign resources	718.0 344.6	1972/73	1972/73			718.0	344.6	
Malakal tannery Foreign resources	2,378.0 1,588.2	1972/73	1973/74			996.6	1,381.4	870.2
Spinning, weaving and finishing Foreign resources	5,916.3 4,730.2	1972/73	1973/74			2,584.8	3,331.5	2,297.6
Shendi tannery Foreign resources	5,235.7 3,590.0	1972/73	1973/74			2,033.4	3,202.3	1,651.4
Leather shoe factory Foreign resources	1,033.9 574.4	1972/73	1972/73			1,033.9		
Resmelting of scrap iron Foreign resources	861.6 574.4	1972/73	1973/74			347.5	514.1	287.2

Ministry of Industry and Mineral Resources: Time Distribution of Funds 1970-1971 - 1974-1975
New Projects (continued)

(000 \$ U.S.)

Project	Total project cost	Project implementation programme		Fund requirements				Remarks	
		Start	Completion	1970/71	1971/72	1972/73	1973/74		1974/75
Kenaf sacks	4,595.2	1973/74	1974/75				1,235.0	3,360.2	
Foreign resources	3,159.2						919.0	2,240.2	
Castor oil plant	1,148.8	1972/73	1972/73				1,148.8		
Foreign resources	718.0						718.0		
Plywood	1,051.1	1973/74	1974/75				522.7	528.4	
Foreign resources	574.4						402.1	172.3	
Ready-made clothes, Medani	718.0	1973/74	1973/74				718.0		
Foreign resources	344.6						344.6		
Sennar canning	2,154.0	1973/74	1974/75				861.6	1,292.4	
Foreign resources	1,436.0						703.6	732.4	
Starch and glucose	2,073.6	1973/74	1974/75				861.6	1,212.0	
Foreign resources	1,378.6						761.1	617.5	
Shendi canning	2,154.0	1973/74	1974/75				861.6	1,292.4	
Foreign resources	1,436.0						718.0	718.0	
Agricultural machinery and implements	3,159.2	1973/74	1974/75				775.4	2,383.8	
Foreign resources	2,297.6						574.4	1,723.2	
Third sugar factory	38,082.7	1974/75	1976/77						
Foreign resources	26,221.4								
Fertilizer plant	40,495.2	1974/75							
Foreign resources	27,284.0								
Total capital investment	146,790.8						7,180.0	10,913.6	14,360.0
Foreign resources	92,263.0						3,733.6	6,892.8	8,616.0
Local resources	54,527.8						3,446.4	4,020.8	5,744.0
									7,754.4
									11,200.8
									22,361.4

*/ This is to be carried over, and these two projects will be completed.

Other projects financed by the public and private sectors include:

- three ginneries;
- knitwear factories;
- one plywood factory;
- one castor oil mill;
- two milk collecting stations and one cheese line;
- one spare parts factory for public enterprises;
- one asbestos-cement pipe factory;
- one brick factory;
- one steel bar factory.

6. Organisational and institutional changes required for industrial plan implementation:

The Ministry of Planning, which is the authority for formulation and co-ordination of the plan, will be reorganized.

The agricultural sector includes 4 ministries: agriculture, animal resources, irrigation and co-operation and rural development.

The services sector includes 6 ministries: local Government, transport and communications, health, instruction and higher education, works and housing.

Planning units will be established to assist the Ministry of Planning in the preparation of sectoral development plans.

The planning machinery needs assistance in the training of planning personnel, both in the central ministries and in various state corporations being responsible for plan implementation.

Plan implementation involves the systematic elaboration of current annual development plans for the country as a whole. The current annual plans shall be worked out with due respect to the previous year targets achieved; concrete targets and conditions for the plan year shall be specified.

Accounting and control are the most important provisions for plan implementation. The Ministry of Planning shall elaborate and take measures for organizing the Government statistics, as well as for collecting and processing information in all spheres of activity. Local councils shall exercise interdepartmental and sectoral control over the plan's implementation and submit to the Council of Ministers reports on the process of the plan's implementation.

7. Problem areas particular to the industrial sector:

The plan aims at reducing the difficulties encountered during the previous plan, such as under-utilization of capacities, transport problems, lack of raw materials and unsatisfactory import of materials (see also Part I, para.9 on page 332).

•

SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF
SWAZILAND: 1969 - 1974 ^{*}/_✓

- I. General background information
- II. Summary of the industrial development plan

^{*}/_✓ The Post Independence Development Plan, 1969-1974,
The Government of Swaziland, Mbabane, 1969, 73 pp.

BIBLIOGRAPHY

- D. Barker: "Swaziland", HMSO 1965.
- J.F. Holleman: "Experiment in Swaziland - Sample Survey 1960",
OUP 1964.
- H. Kuper: "An African Aristocracy", London, 1961.
"The Uniform of Colour", Johannesburg, 1947.
"The Swazi - An Ethnographical Survey", London, 1952.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Swaziland:

<u>Area:</u>	Total	17,360 km ²
	Agricultural area of which:	15,200 km ²
	Arable and permanent crop land	1,380 km ²
	Temporary fallow	1,140 km ²
	Permanent grassland	12,680 km ²
	Forests	1,290 km ²
	Non-agricultural land	870 km ²

Major cities:

	<u>Population in 1966</u>
Mbabane	14,000
Mansini	16,000
Havelock Mine	4,500

Other data:

Number of motor vehicles (1968)	10,600
Electric generating capacity (1968)	47.3 MW
Annual electricity production (1966)	30.1 million kwh

Exchange rates: (1970)

<u>Unit</u>	<u>Rand equivalent</u>
US dollar	0.72
Pound sterling	1.72
Swiss franc	0.17
French franc	0.13
German mark	0.19
Italian lira (100)	0.11

2. Population:

	<u>1966</u>	<u>1968</u> [*]	<u>Average annual increase</u>
Total African population ^{**}	362,400	412,000	6.8%

According to the 1966 census, the urban population amounted to 53,000 people including sub-urban areas. Distribution by ethnic groups in 1966:

- Africans	362,400
- Europeans	8,000
- Other non-Africans ^{***}	<u>4,200</u>
	<u>374,600</u>

^{*}/ Estimate; total population figures not available.

^{**}/ Not including about 20,600 non-residents.

^{***}/ Mostly people of mixed origin.

Age distribution of Africans in 1968:

Children aged 0-14	186,000
Men 15-64	106,000
Women 15-64	109,000
Persons aged 65 and over	<u>11,000</u>
	<u>412,000</u>

Estimated Number of Wage Employees in 1968

Agriculture and agricultural services	16,334
Forestry, logging, etc.	3,054
Mining and quarrying	2,670
Food and beverages manufacture	2,143
Wood manufactures	1,085
Pulp and printing	1,175
Bricks pottery and cement	43
Engineering and repair of transport	253
Other manufacturing	196
Construction	4,590
Electricity	327
Distributive trades	4,140
Insurance, banking and finance	362
Transport, storage and communications	2,424
Education, professional and scientific services	3,682
Miscellaneous services	7,861
Public administration	1,767
Total industries	52,106
Employed population as % of total African population	12.6

Education:Primary and Secondary Schools, Pupils and Teachers in 1964 and 1968

	Primary schools		Secondary schools		Total	
	<u>1964</u>	<u>1968</u>	<u>1964</u>	<u>1968</u>	<u>1964</u>	<u>1968</u>
Number of schools	342	358	32	31	374	389
Number of pupils	47,900	62,100	2,800	6,200	50,700	68,300
Number of teachers	1,490	1,630	170	300	1,660	1,930

After three years secondary school, pupils take their certificate examination. Ten schools offer their pupils further two-year courses up to matriculation. One privately-run school prepares pupils for the Cambridge Overseas Higher School Certificate (A-level).

The University of Botswana, Lesotho and Swaziland (UBLS) was established in 1964; two years later, Swaziland's College of Agriculture at Luyengo was associated with the University and called the Swaziland Agricultural College and University Centre (SACUC). The college offers a three-year university diploma in agriculture and certificate courses in agriculture, forestry and home economics. A farmers training centre providing short courses is attached to the college.

In 1969 Swaziland had 111 undergraduates of which 55 were at the University of Botswana, Lesotho and Swaziland; the others were studying at various universities in Africa and other countries. For the education of adults, the Sebenta National Institute was founded in 1961.

There are two main teacher training colleges catering mainly for primary school teachers; a third college runs courses for about 20 domestic science teachers. Teachers for the middle and higher classes of secondary schools are trained at the University of Botswana, Lesotho and Swaziland.

The Swaziland Industrial Training Institute and the Trade Testing Centre are run by the Government and offer full boarding facilities for 160 students; they provide courses up to the technician level in certain engineering trades and other courses to the artisan level.

The administrative, executive, accounting, clerical and secretarial staff for the Government service is trained at the Staff Training Institute in Mbabane.

3. GDP:

	<u>1965-1966</u>	<u>1966-1967</u> *	Average annual increase
Manufacturing GDP/capita (\$)	15.3	16.4	7.2%
Total GDP/capita (\$)	178.8	183.4	2.6%
Population (000)**	362	387	6.8%
Manufacturing GDP (million \$ U.S.)	5.7	6.6	15.8%
Total GDP (million \$ U.S.)	67.1	73.4	9.4%
Manufacturing % of total GDP	8.5	9.0	

*/ Data for 1968-1969 not available.

**/ African population only.

GDP Structure
(million \$ U.S.)

	<u>1965-1966</u>	<u>1966-1967</u>
Agriculture	15.5	20.7
Forestry	7.7	6.7
Mining and construction	15.4	15.4
Manufacturing	5.7	6.6
Electricity	1.0	1.1
Retail trade	4.3	3.8
Wholesale trade	1.7	1.4
Finance	0.3	-
Transport and communications	5.2	6.2
Ownership of dwellings	0.6	0.6
Education	1.8	2.2
Health	0.6	0.7
Public administration	4.8	4.8
Other services	2.5	3.2
Total	<u>67.1</u>	<u>73.4</u>

4. Macro-economic indicators:

<u>GDP:</u>	1965-1966 - \$67.1 million
	1966-1967 - \$73.4 million
	Average annual rate of growth 9.4%
<u>Exports (f.o.b.):</u>	1965 - \$43.1 million
	1968 - \$58.9 million
	Average annual rate of growth 11.1%
<u>Imports:</u>	1967 - \$49.0 million
	1968 - \$47.7 million
	Average annual rate of growth 2.7%

Government Expenditures and Revenues

(000 \$ U.S.)

	<u>1968-1969*</u>
Recurrent expenditures	20,884
Ordinary revenues	15,267
Budgetary aid	1,009
Deficit	<u>4,608</u>

The deficit is covered by a grant-in-aid from the United Kingdom of Great Britain and Northern Ireland.

*/ Estimate.

The capital expenditure exceeding the Government's budget averaged \$4.2 million in the four years 1964-1965 - 1967-1968. It dropped to an estimated amount of 2.7 million in 1968-1969. The public debt amounted to about \$34.0 million in 1968-1969. A large part, about \$19.2 million, is accounted for by outstanding loans to the Swaziland Railway and Electricity Board; these will be repaid by 1979 out of their own income and out of tax payments from the Iranian Ore Development Company. The residual amount of only \$14.8 million falls under the Government's own finances.

5. Industrial products and technology - main manufacturing industries:

6. Industry - related resources and sectors:

Forests:

Forestry is largely based on pine forests and eucalyptus covering a total area of nearly 200,000 acres. There are also planted forests of wattle being economically unimportant. Renewed interest exists in the planting of timber in the Shiselweni district; in 1967 the Commonwealth Development Corporation began the planting of 10,000 acres of eucalyptus trees.

The total value of exports was \$9.7 million in 1967.

Main crops and livestock:

The main crops are sugar, citrus, cotton, maize, rice, pineapples and tobacco.

The development of cash crop has primarily been based on the exploitation of water resources. The area under irrigation has been expanded from 29,000 acres in 1960 to 70,000 acres in 1968. The largest existing irrigation project is the Commonwealth Development Corporation's irrigation scheme in the northern Lowveld. In 1967, some 26,000 acres were under irrigation from a canal running off the Komati. Sugar, citrus and rice were grown on a large scale. In 1966, the sand river dam was opened; the reservoir created by this dam will permit the development of a further 12,000 acres. Another irrigation complex is in the southern Lowveld where the principle crop is sugar. A third large scheme is situated in the Middleveld where the main crops are citrus, cotton and pineapples.

The Government established the Canning Corporation of Swaziland to operate the fruit cannery at Malkerus.

Main Crop Production on Title-deed Land in 1967-1968*

	<u>Area</u> <u>acres</u>	<u>Production</u> <u>Short tons</u>
Avocados	200	200
Bananas	200	800
Citrus	5,000	57,800
Cotton	18,000	7,300
Field beans	800	400
Maize	8,900	4,000
Pineapples	2,100	14,600
Rice	5,800	6,400
Sorghum	700	800
Sugar-cane	36,600	1,495,000
Tobacco	100	30

*/ This table does not include any allowance for crops grown on Swasi Nation land.

Livestock industry is based on a national cattle production of about half a million, 80% of which are owned by Swasi.

Number of Livestock
(000)

<u>Type of livestock</u>	<u>Number of Livestock (000)</u>				<u>Average annual increase</u>	
	<u>1950</u>	<u>1960</u>	<u>1964</u>	<u>1968</u>	<u>1950-1960</u>	<u>1964-1968</u>
Total cattle of which:						
0-3 years	417,000	521,000	545,000	515,000	2.3%	-0.6%
Bulls	185,000	242,000	252,000	228,000	2.7%	-1.0%
Cows	11,000	12,000	14,000	16,000	0.9%	1.3%
Oxen	141,000	169,000	182,000	175,000	1.8%	-0.4%
	80,000	98,000	97,000	96,000	2.1%	-0.1%
Goats	113,000	204,000	248,000	226,000	6.0%	-1.0%
Sheep	25,000	35,000	40,000	41,000	3.4%	0.2%
Horses	2,000	2,000	2,000	2,000	-	-
Donkeys	16,000	16,000	16,000	14,000	-	-1.3%
Poultry	216,000	306,000	323,000	350,000	3.6%	0.8%
Pigs	14,000	13,000	10,000	11,000	-0.7%	1.0%

Number of Slaughtered and Exported Cattle

	1950	1960	1964	1968	Average annual increase	
					1950-1960	1964-1968
Number of slaughtered cattle	36,000	38,000	50,000	56,000	0.6%	2.9%
Number of exported cattle	10,000	17,000	14,000	3,000	5.4%	-46.5%
Total	46,000	55,000	64,000	59,000	1.8%	-1.9%

Butter is produced in a factory in Manzini and partly exported. The whole fresh milk is mainly produced by a few European farmers.

Minerals and mining:

Mining is an important sector of the country's economy.

Production of Minerals in 1964 and 1968

	1964		1968		Average annual increase	
	short tons	000 \$ U.S.	short tons	000 \$ U.S.	Quantity	Value
Chrysolite asbestos	39.9	7,304	42.9	8,464	1.9%	3.8%
Iron-ore	66.4	446	2,260.2	16,560	88.2%	90.2%
Coal	4.5	10	106.7	349	79.5%	88.9%
Other minerals	n.a.	105	n.a.	216	n.a.	34.4%
Total	n.a.	7,865	n.a.	25,588	n.a.	34.2%

The country's major mines in terms of value of output are:

- the iron-ore mine at Ngwenya which started production in 1964 and is operated by the Swaziland Iron-Ore Development Company; it supplies Japanese steel companies with some 15 million tons of iron-ore over a 10-year period. The company is controlled by the Anglo-American Corporation; minor shareholders are the British steel firm of Guest, Keen and Nettlefolds and the Commonwealth Development Corporation;
- the Havelock Asbestos Mine operated by New Amianthus Mines, a subsidiary of Turner and Newall; the mine produces asbestos fibre at a value of about \$8.4 million per year, all of which is exported;
- the coal mine at Mpaka operated by Swaziland Collieries supplies the railway and other domestic consumers and has established export markets in Mozambique and Kenya.

Prospecting rights near Havelock were granted to Lourho Ltd. in 1968 to develop a second asbestos mine. A four-year plan of operation for the mineral survey under the United Nations Development Programme was drawn up and signed in 1966.

Fuels and power:

The Swaziland Electricity Board extended the transmission and distribution system; the demand of existing consumers increased. The Board has been carrying out a four-year development programme covering the period 1967-1968 - 1970-1971.

A hydroelectric power station at Magudusa was under construction during the plan period. In 1968 a new Water Act came into force consolidating and amending the laws in force and providing for the establishment of water control areas.

Swaziland Electricity Board
Generating Capacity 1964-1968

<u>Year</u> (31 March)	<u>Hydroelectric</u> (MW)	<u>Diesel</u> (MW)	<u>Total</u> (MW)
1964	0.6	1.8	2.4
1965	10.0	1.5	11.5
1966	10.0	1.5	11.5
1967	10.0	2.5	12.5
1968	10.0	2.5*	12.5*

Average annual increase from 1964-1968 amounted to 51.3%.

*/ Later in the year the Diesel capacity increased to 7 MW and the total capacity to 17 MW.

Number of Consumers and Sale of Electricity by the
Swaziland Electricity Board
1964-1968

<u>Tariffs</u>	<u>Domestic</u>	<u>Commercial</u>	<u>Power and bulk</u>	<u>Total</u>
Number of consumers*				
1964	883	347	31	1,261
1965	1,043	426	45	1,514
1966	1,113	465	54	1,632
1967	1,381	423	65	1,869
1968	1,545	574	94	2,213

Average annual increase from 1964-1968 of total consumers was 15.0%.

<u>Units sold (million kwh)</u>	<u>Domestic</u>	<u>Commercial</u>	<u>Power and bulk</u>	<u>Total</u>
1964	2.1	3.1	5.2	10.4
1965	3.8	3.7	22.2	29.7
1966	3.7	7.4	19.0	30.1
1967	6.4	5.2	30.1	41.7
1968	7.9	5.8	41.4	55.1

Average annual increase from 1964-1968 of total units sold was 42.5%.

*/ as per 31 December of each year.

- 377 -

Electricity has also been generated by a number of private firms. In 1968 their generating capacity was estimated at 30.3 MW. The total capacity of Swaziland therefore was 47.3 MW.

Transport:

During the last few years road construction has been on a much smaller scale than in the period 1955-1965 when \$12.3 million were spent for that purpose; the pressing needs of other sectors have been given priority.

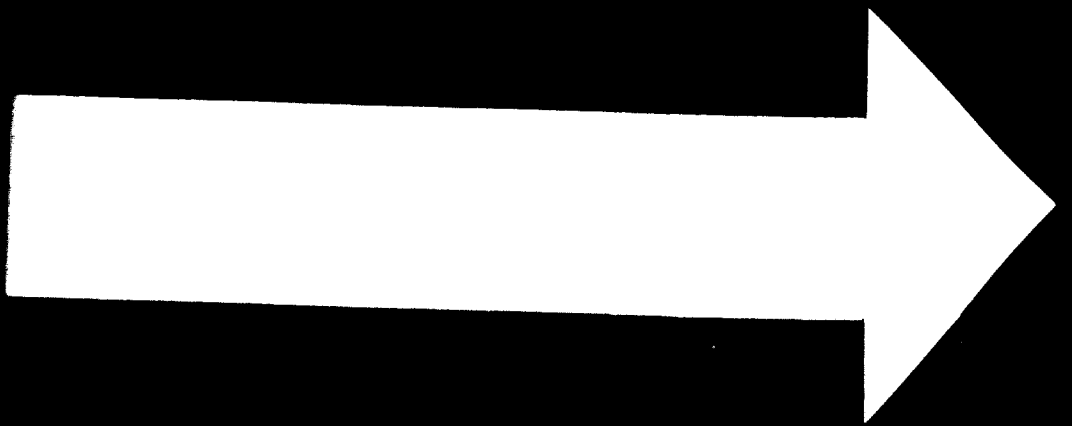
Lengths of Main and Secondary Roads in 1965 and 1968

<u>Year</u>	<u>Miles</u>	<u>Total</u>	<u>Of which tared</u>	
		<u>Kilometres</u>	<u>Miles</u>	<u>Kilometres</u>
1965	1,400	2,260	100	160
1968	1,600	2,570	124	200

A new road linking Hlatikulu in the South with Sidvokodvo was completed.

The Government-owned Swaziland railways, 136 miles long, were built from 1961 to 1964 to carry iron-ore from the Ngwenya mine to the eastern boarder where they join the Caminhos de Ferro de Mozambique for the 46-mile journey to Lourenço Marques. The iron-ore is then shipped to Japan. Increasing use is being made of the railways for the export of sugar, wood, pulp and canned fruit, and for the import of petrol and oil. The tonnage of goods carried by the Swaziland railways increased by more than 10%.

A new Aviation Act came into force in 1968 giving effect to certain international conventions. The frequency and capacity of flights on the main run, Johannesburg - Matsapa, near Manzini, was enlarged.

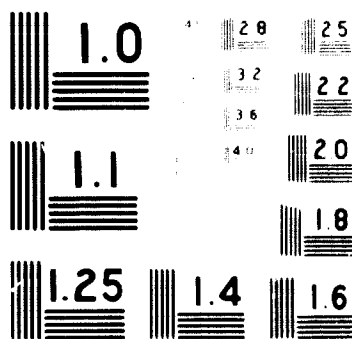


22.7.74

8 OF 10

D O

4 9 9 7



Air services are operated by Swazi-Air, a subsidiary of the National Airways Corporation of Germistat, Transvaal, South African Airways and the Linhas Aereas de Mozambique.

The Department of Post and Telecommunication has been steadily expanding its services. From 1964 to 1968 the postal traffic increased by nearly 13%, the telecommunication traffic by 40%. A new telephone exchange was opened in Mbabane in 1968. In spite of the rapid expansion of services, the demand could not be met. Local offices of the Department also handle the savings accounts of the Swaziland Credit and Savings Bank.

Main exports:

The most important export commodities in order of value are iron-ore, sugar, forest products, asbestos, meat products and citrus. Iron-ore is sold to Japan, and most of the sugar goes to the United Kingdom of Great Britain and Northern Ireland under the Commonwealth Sugar Agreement. Several less important agricultural products are sold to South Africa.

Value of Exports in 1964 and 1968
(000 \$ U.S.)

	<u>1964</u>	<u>1968</u>	<u>Average annual increase</u>
Iron-ore	447	16,559	386.9%
Sugar	10,630	10,892	0.5%
Wood pulp and other forest products	8,074	11,865	10.1%
Asbestos	7,305	8,464	3.4%
Meat and meat products	80	3,179	412.4%
Citrus fruits	685	2,486	379.4%

Main imports:

Major imports comprise machinery, transport equipment and other manufactured goods.

- 379 -

Value and Origin of Main Imports in 1968 *
(000 \$ U.S.)

	<u>Total</u> <u>imports</u>	<u>From</u> <u>South Africa</u> **	<u>From</u> <u>other countries</u>
Machinery and transport equipment	14,064	12,110	1,954
Manufactured goods, chiefly classified by material	9,996	9,327	669
Miscellaneous manufactured articles	5,551	5,379	172
Food and live animals	5,804	5,606	199

*/ Preliminary figures.

**/ Including goods purchased from wholesalers in South Africa which may have had their origin in other countries.

7. Overall economic development strategy and policy:

Five development plans carried out since 1948 up to the declaration of independence on 6 September 1968 have coincided with the allocation of development funds by the United Kingdom of Great Britain and Northern Ireland; they had the form of public expenditure programmes by sectors rather than of development plans.

8. Regional co-operation:

The country belongs to the South African Customs Union like Botswana and Lesotho; the union was originally established in 1910 and has now been renegotiated when the country became independent.

Belonging to the Rand currency area the country uses the South African Rand.

Swaziland is also a member of the Organization of African Unity and the Commonwealth.

9. Systems for planning and plan implementation:

The Cabinet is the supreme planning authority and has the ultimate responsibility for the formulation and implementation of plans. A new department has been created within the Prime Minister's office consisting of two units, the Planning Secretariat and the Statistical Office. An administrative secretary will take care of the administrative functions within the department. The Economic Adviser to the Cabinet is in charge of planning and heads the Planning Secretariat; he comes directly under the Prime Minister. The functions and duties of the Director of Statistics are defined in the Statistics Act.

An Inter-ministerial Planning Committee has been established in order to assist in the co-ordination of planning. The Government will also approach private organizations for the purpose of establishing continuous co-operation in planning.

Under directives from the Prime Minister and the Cabinet, the functions of the Planning Secretariat have been defined as follows:

- to co-ordinate and supervise all governmental planning, i.e. both formulation and implementation of plans;
- in co-operation with ministries and agencies, to propose and draft development plans and to advise the Prime Minister and the Cabinet on economic and social policies;
- to guide and assist ministries and agencies regarding planning;

- to evaluate plan implementation and to suggest improved methods of implementation;
- to collect information and to initiate research and surveys that are necessary for planning purposes;
- to prepare reports on economic and social development;
- to co-ordinate efforts to obtain technical assistance and to process requests for such assistance on behalf of the operating ministries;
- to co-ordinate financial and economic policy, to explore means of obtaining financial assistance and to take part in and assist in the conduct of negotiations for grants, loans, and credits, in particular by preparing material needed;
- to provide the overall economic planning view in connection with the preparation of the annual budget;
- to be the Cabinet's executive agency in matters regarding planning.

10. Problems encountered through the previous plan period:

The main problems have been:

- the elimination of the budget deficit;
- the inevitable shortage of funds available for development purposes;
- the shortages and insufficiencies in the field of education and training.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1969-1974

1. General goals and objectives:(i) Planned growth:

The population projections for 1970 amounted to 438,000 people and will amount to 495,000 people in 1974; the average annual growth rate is estimated at 3.0%. Further data are not available.

(ii) Other objectives:

- to improve the living conditions;
- to raise the level of employment;
- to balance employment between the various sectors and occupations to maximize the earnings of the people;
- to increase the level of skills of the African population;
- to expand and improve educational and training standards;
- to develop the infrastructure of the country;
- to develop agriculture and related industries;
- to further administrative and organizational improvements and the expansion of research.

2. Strategy and policy:(i) General:

The development strategy adopted by the Government can be summarized as follows:

- Efforts will be made to mobilize foreign capital for the public investment programme, paying increased attention to non-British sources.
- The private sector will be expected to co-operate in the attainment of the Government's principal objectives.
- The increase of internal capital resources, in particular domestic savings, will be aimed at.
- The Government will endeavour to finalize negotiations for a new customs union agreement.

- 383 -

- The Government will look after the private sector to further economic development and will not participate in the management of private businesses.
- In agriculture, the Government will be engaged in marketing and in the development of cattle holding grounds.
- Tax incentives granted in several instances to help new industries in their early years will be kept under constant review to ensure that they serve their purposes.
- The use of mineral and water resources will be increased.

(ii) Manpower and productivity:

Education:

The country's objectives in the field of education and training are:

- Primary education should be free and universal.
- Secondary education should be available and free to all who want it and are capable of profiting from it.
- The number of graduates, professionals, technicians and others with specialized skills should be sufficient to meet the needs of both public and private sectors.

To attain the above-mentioned objectives, the Government will pursue the following:

- The total primary school enrolment will increase at an average of 2,000 a year through the provision for more facilities.
- The total secondary school enrolment will be increased by about 6,000, reaching a total of 10,000 by 1973 and 12,000 by 1975.
- The school courses for primary and secondary education will be improved.
- The total planned investment in primary and secondary education is \$2.7 million.
- It is intended to establish a GCE Advanced Level Centre where pupils who have achieved matriculation after five years in secondary school study for further two years to achieve the entry standards required by British and certain African universities.

- In 1973 the annual enrolment will amount to 100 pupils.
- The number of university graduates and graduate-level specialists shall amount to 100 a year by the mid-1970s, 70 of which, including 40 teachers, are expected to be employed by the Government; the remaining 30 will be available for the private sector.
- The annual output of the two teacher training colleges in Manzini will be increased to 30 diploma-level teachers for junior secondary classes, to 120 higher primary school teachers, and to 50 lower primary school teachers, a total of 200. The costs for necessary extension are estimated at \$175,000.
- The Swaziland Industrial Training Institute, the Staff Training Institute and the Agricultural College will be extended.
- Additional farmers' training centres will be established.
- Youth training camps will provide training in practical farming for boys who finished primary school.
- The Sebenta National Institute will be assisted and encouraged.
- The total investment will amount to \$4.7 million.

	<u>000 \$ U.S.</u>
Primary schools	1,470
Secondary schools	1,190
GCE Advanced-Level Centre	280
Teacher training	175
Industrial Training Institute	525
Staff Training Institute	140
Agricultural College	560
Youth training camps	<u>70</u>
Total	4,410

- Additional \$294,000 have been included for farmers' training centres in the agricultural programme.

Employment:

The number of young male Africans entering the labour force will average about 4,000 a year between 1969-1974. About 1,090 young women will enter the labour force during the same period, excluding those engaged in peasant farming. The total number of new entrants is thus estimated at 5,000 per annum.

The main employment objectives are:

- The people of Swaziland should be brought to as high a level of skills as the economy can afford.
- The employment should be balanced between the various sectors and occupations in such a manner as to maximize the earnings of the people.

(iii) Investment and capacity utilization:

The sectoral public investment programme is composed as follows:

	<u>000 \$ U.S.</u>
Agriculture	4,474
Mining, industry and commerce	3,474
Power	3,920
Roads	5,600
Vehicles and various equipment	1,680
Telecommunications	840
Housing, utilities and community development	3,906
Education, training and broadcasting	4,634
Health	742
Administrative buildings	1,022
Judiciary, police and prisons	1,784
Miscellaneous	264
Total	<u>32,340</u>

A total of \$3.4 million will be invested for three important Government projects:

	<u>000 \$ U.S.</u>
Matsapa Industrial Estate	280
Small Business Loans, etc.	350
Development Finance Company	<u>2,800</u>
	3,430

In the Ministry of Commerce, Industry and Mines, a new section has been set up to assist the small local entrepreneur with advice on financial and technical business matters, training and servicing facilities, as well as loans. The Business Loans will be handled by the Swaziland Credit and Savings Bank; it is considered that this Bank should be supplied with \$315,000. The project will also require some \$35,000 in grant money for equipment, construction material, etc. The whole project will thus cost about \$350,000.

The Government's idea of the Development Finance Company is that financing agencies which operate or wish to operate on commercial lines should pool their resources; the company would invest in and make loans to intending investors and to businesses already established. The initial financial resources for the company of \$2.8 million are provisional.

Sources of finance for the investment programme will be the country's budget, the British Development Aid, the World Bank, and for some projects American aid.

(iv) Interconnections between growth factors:

3. Data bases and projections:

In 1965 the statistical office was established; the scarcity of statistical and other data has since been improved. The population census of 1966 has provided much improved population statistics and the first official national account figures were prepared. Nevertheless, much desirable information is lacking.

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

(ii) Planned growth of electricity:

By 1970-1971 it will be necessary to further increase the generating capacity or to import electricity from South Africa.

The development of the generating capacity could be based on imported oil, water power and coal deposits in the Lowveld. A survey of the Usutu River Basin under the United Nations Development Programme has been completed in 1969-1970.

The possibility of linking the country's transmission system with that of the South African Electricity Supply Commission (ESCOM) is being investigated.

In addition to the current expansion programme of the Electricity Board, the following investment will be necessary:

	<u>000 \$ U.S.</u>
Extensions of the transmission network	1,050
Distribution, buildings and transport	1,120
Additional diesel generation	490
Investigations for thermal stations	1,260
	<u>3,920</u>

(iii) Planned growth of mining:

The production of the coal mine at Mpaka and of barytes could be increased. Gold mines may be reopened.

A silica deposit in the southern Highveld could be developed to establish a processing plant for cleaning products. It is hoped that a second asbestos mine will be developed during the early 1970's. The Geological Survey and Mines Department intends to start two new projects:

- A plant hire service for small miners will be established. They will be able to hire equipment such as compressors, pumps, etc. at rates covering the cost of providing the service, including depreciation. It is expected that an initial investment of about \$39,200 will be required.
- The Department needs an X-ray spectrometer to enable geochemical and other samples to be analyzed. The costs will amount to about \$5,600.

(iv) Priority of sectors:

The development of agro-industries will be of main importance, but the expansion of the mineral production will also be promoted.

(v) Infrastructure connected with industry:Roads:

In 1969 the Ministry of Works prepared a long-term road development plan with the assistance of a United Nations Transport Adviser. It is envisaged that from Manzini the main road network will radiate. During the plan period the following

parts of this project shall be realized:

	<u>000 \$ U.S.</u>
Completion of on-going constructions (Big Bend road and Sicunsa bridge)	55
Centre - South link	420
Big Bend - Huzumoya	1,582
Tshaneni - Mlawula	1,624
Malkerns road	350
Manzini roads and bridges	420
Mbabane major roads	308
Mbabane roads and bridges	385
District roads	456
	<u>5,600</u>

An amount of \$236,600 only is provided for road construction in the capital budget; other sources of finance will be the World Bank and other non-British sources. For vehicles, the plant and equipment for the mechanical workshop of the Public Works Department, an amount of \$1.7 million has been included in the plan.

Railways:

Permanent improvements of the network, additional rolling stock and staff housing will be necessary.

Air service:

The Government considers the setting up of a national airline in association with commercial partners.

(vi) Relationships with non-industry sectors of the economy:

Public investment projects in the field of agriculture to be carried out during the plan period:

	<u>000 \$ U.S.</u>
Agricultural research	70
Seed production unit	140
Animal husbandry unit	84
Veterinary control	71
Farmers' training centres	294
Crop promotion	105
Cattle holding grounds	105
Livestock improvement	182
Increased credit facilities	73
Crop marketing	140
Co-operative project	105
Settlement schemes	1,400
Land planning and development	980
Usutu survey	63
	<hr/> 4,474

The Commonwealth Development Corporation will increase its rice acreage; introduce trials with avocados and lychees, improve the irrigation and drainage network and expand facilities for handling rice and citrus. This programme will cost some \$3.1 million.

5. Planned industrial projects:

A cement grinding and bagging plant and a factory for the manufacture of paper and cardboard packaging materials are soon to be opened at Matsapa; both are designed to meet local demand.

The construction of a fertilizer mixing plant is expected to start soon.

The Matsapa Industrial Estate will be further developed.

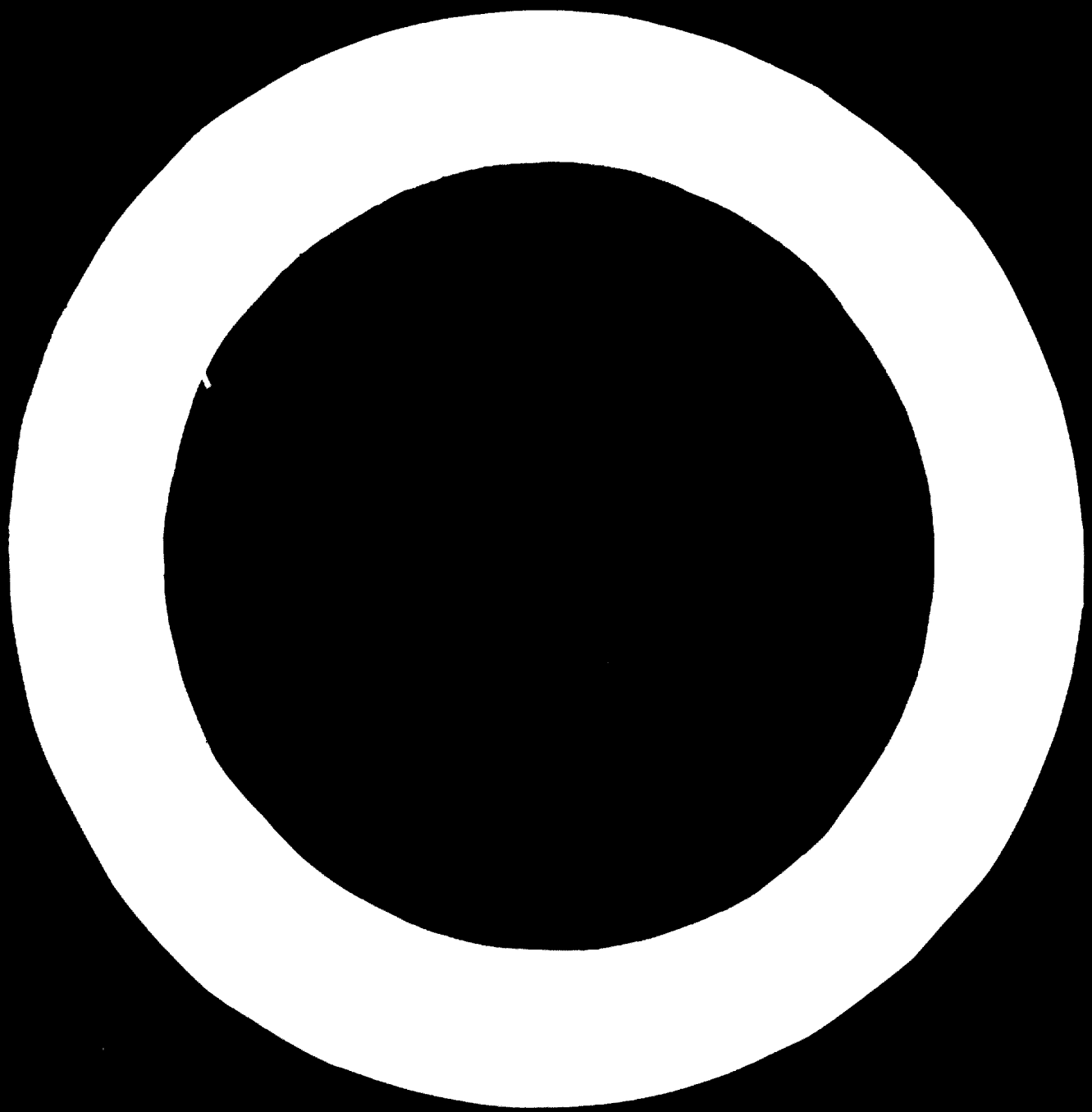
6. Organizational and institutional changes required for industrial plan implementation:

No further changes are envisaged since the planning machinery was reorganized in connection with the declaration of independence (see also Part I., 9.).

7. Problem areas particular to the industrial sector:

The main problems are:

- lack of skilled workers; the African population is only employed for semi- and unskilled work;
 - lack of capital for investment purposes.
- For further information see also Part I., 10.



SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF TOGO: 1971 - 1975 ^{*}

I. General background information

II. Summary of the industrial development plan

^{*} / **Plan de Développement Economique et Social, 1971-1975, République Togolaise, Ministère des Finances, de l'Economie et du Plan, Direction des Etudes et du Plan, Lomé, 430 pp.**

BIBLIOGRAPHY

- Plan de Développement Economique et Social 1971-1975, République Togolaise, Ministère des Finances, de l'Economie et du Plan.
- The Statesman's Yearbook 1970-1971, Bungay, Suffolk, 1970.
- A.I.D. Economic Data Book, Africa, Department of State, Agency for International Development, Washington, D.C., 1970.
- Africa 1971: A Reference Volume on the African Continent prepared by "Jeune Afrique", published as a special issue.
- L'Industrie Africaine en 1970: 3^e édition, Vol.II.
- Momento de l'Economie Africaine: Ediafric, Paris, 6^e édition, 1970.
- I.M.F. International Financial Statistics, Washington, November 1971.
- UN: Monthly Bulletin of Statistics, New York, October 1971.
- UNDP: Annual Reports on Togo.
- Bulletin de l'Afrique Noire: No. 615 (7 octobre 1970), No. 630 (27 janvier 1971), Aperçus sur l'Economie Togolaise.
- La Documentation Française: "Le Togo", Notes et Etudes Documentaires.
- Europe, France, Outre-mer: Numéro spécial, Le Togo, Décennie de la Paix, novembre 1971.
- Marchés Tropicaux et Méditerranéens: Le Marché Togolais No. 1308, 5 décembre 1970.
- Le Monde: Numéro spécial, 4-5 décembre 1971.
- Togo Presse: Numéro spécial, "Dix Ans Après", 27 avril 1970.
- R. Cornevin: Histoire au Togo, Berger Lavrault, Paris.
Le Togo, nation-pilote, NEL, Paris.
Le Togo, Collection "Que sais-je", No. 1272, P.U.F.
- R.J. Harrison Church: West Africa - Longmans, Chapter 24, London, 1968.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Togo:

<u>Area:</u>	Total	56,600 km ²
	Agricultural area	23,263 km ²
	Forests	5,044 km ²
	Cultivable land	13,137 km ²
	Uncultivable land	15,156 km ²

Major cities:

	<u>Population in 1970</u>
Lomé	138,000
Sokodé	17,000
Palimé	16,000
Anécho	13,000
Atakpamé	13,000
Tsévié	13,000

Other data: (1969)

	<u>Number</u>
Number of automobiles	5,900
Number of transport vehicles	4,500
Number of telephones	4,567
Number of radios	31,000
Electricity production	36 kwh/capita

Exchange rates: (1970)

<u>Unit</u>	<u>Togolese CFA francs equivalent</u>
US dollar	277.71
Pound sterling	665.97
Swiss franc	64.34
French franc	50.35
German mark	76.13
Italian lira (100)	44.56

Until the 10 August 1969 the exchange rate was \$1=CFA Fr.247.--.

Since the 10 August 1969 the exchange rate is \$1=CFA Fr.277.71.

2. Population:

	<u>1965</u>	<u>1970</u>
Total population (000)	1,640	2,006*
Density	28/km ²	35/km ²
Annual growth rate		2.6%
Increase during the first plan period		13.0%

*/ Estimate according to the provisional result of the 1970 census.

Social Distribution of the Population

	<u>Total</u>	<u>%</u>
Urban population	263,600	13
Rural population	1,742,000	87
Population of the maritime area	720,790	36
Active population from the age of 14 to 60	927,236	46
Effectively active population	666,000	33

Distribution of Employment

(Estimates)

Agriculture	517,000
Other	149,000
Wage earners	32,990
Public sector	16,300
Private sector	16,690
Unemployment	4,800

Distribution of Employment by Branch of Activity in 1970
for the Private Sector

(Estimates)

<u>Sector</u>	<u>Persons</u>
Mining	1,551
Food and beverages	289
Textiles	507
Plastics	27
Furniture	32
Leather and shoes	137
Chemicals	45
Trade	2,200
Building	2,200
Private transport	2,800
Small trade	700
Private education	2,000
Household	1,100
Handicraft	2,000
Other	1,100
Total	16,688

Education:

Population under 14 years of age	51.0%
Population at school age (aged 5-14)	25.5%
Literacy rate	5.0-10.0%

	<u>1965</u>	<u>1970</u>
Rate of enrolments in schools	36.0%	41.3%
Rate of school attendance	-	42.0%
Number of pupils in primary schools	149,660	206,280

Number of Schools, Pupils and Teachers in 1970

<u>Level</u>	<u>Schools</u>	<u>Pupils</u>	<u>Teachers</u>
Primary	837	206,280	3,290
Secondary	63	13,126	538
Technical	20	1,800	70
High-level	3	643	32

Higher education:

Founded in 1965 as "Institut d'Enseignement Supérieur du Benin", this institution attained university status in October 1970 as the "Université du Benin". It is composed of four colleges:

- law and economics
- literature
- science
- medicine.

In 1971, the Benin University included more than 1,100 students and 60 teachers.

The expenditures on education amount to more than 11% of the state budget, i.e. \$3.29 million in 1970; private contributions have to be added to these figures, since one third of the pupils at all levels is mission-educated.

3. GDP:

	<u>1965</u>	<u>1970</u>	Average annual increase (<u>1965-1970</u>)
Industrial GDP/capita (\$) *	13.00	24.37	4.22%
Total GDP/capita (\$)	108.00	132.50	4.06%
Population (000)	1,638	2,006	2.70%
Industrial GDP (million \$ U.S.) *	21.34	50.09	9.00%
Total GDP (million \$ U.S.)	177.00	266.00	8.45% **
Industry % of total GDP	12.00	18.83	

*/ Including mining and quarrying.

**/ During the first plan period, the annual growth rate of GDP (at current prices) was 11%. Results of national accounts showed that GDP for 1965 had been undervalued. Therefore, considering only the period of four years (between 1966 and 1970), an annual growth rate of 8.6% in real terms is obtained. The plan indicated a growth rate of 5.3%.

GDP Structure According to the Different Sectors
(%)

	<u>1965</u>	<u>1967</u>	<u>1970</u>
Primary sector	45.9	44.2	44.5
Secondary sector	15.7	21.3	21.4
Tertiary sector	38.4	34.5	33.1

Investment During the First Plan 1965-1969

(million \$ U.S.)

	1965-1970 plan targets		Realization in 1969		Under construction
	<u>Total value</u>	<u>%</u>	<u>Total value</u>	<u>%</u>	<u>Total value</u>
Energy	2.21	21.60	3.03	12.71	2.02
Fisheries	1.16	11.35	0.56	2.37	-
Mining	-	-	12.14	50.84	12.14
Transformation industry					
Agricultural food	3.07	29.96	2.63	11.01	3.23
Textiles	2.71	24.41	3.92	16.44	6.07
Construction material	1.09	10.64	1.21	5.08	4.45
Other	-	-	0.36	1.52	3.23
Total	10.26	100.00	23.88	100.00	31.17

As a result of the state's efforts, a total amount of about \$40 million of public funds was invested during the first five-year plan. The total targets were \$13.76 million. This favourable result was partly due to unforeseen investments, such as in mining (\$12.14 million) and in new factories (\$10.12 million).

4. Macro-economic indicators:Money supply:

1965 - \$ 21.11 million

1970 - \$ 38.67 million

Average annual increase 12.8%

Prices: Consumer index

1968 = 100 (at export prices)

September 1971 = 141

Average annual increase 12.1%

Export price indices

1963 = 100

1965 = 101

1970 = 140

Average annual increase 4.9%

GDP:

1965 = \$177.00 million

1970 = \$266.00 million

Average annual increase 8.4%

Total Value of Exports and Imports
(million \$ U.S.)

	<u>1965</u>	<u>1969</u>	<u>1970</u>
Exports	27.0	46.5	54.7
Imports	-45.0	-59.0	-64.4
Balance	-18.0	-12.5	-9.7

Balance of Payments
(million \$ U.S.)

	<u>1965</u>	<u>1968</u>
Freight and insurance on merchandise	-40.486	24.291
Other services and not required private transfers	-32.389	-40.486
Not required Central Government transfers	44.534	40.486
Non-monetary sector capital		
Direct investments	20.243	-
Other private capital	-4.049	4.049
Central Government capital	12.146	-
Monetary sector		
Private institutions	-4.049	-
Central institutions	-24.291	-12.146
Net errors and omissions	28.340	-16.194

In 1968 the Togolese balance of payments showed a surplus of \$3 million which rose to \$14.97 million in 1969. Although the 1970 surplus was not so important, the deficit of the goods and services balance was broadly covered by the balance of transfers and capital movements.

Central Government Current Expenditure

(million \$ U.S.)

	<u>Expenditure</u>	<u>Revenue</u>
1965	19.40	19.17
1966	22.27	20.11
1967	23.84	21.34
1968	24.57	24.57
1969	26.44	26.44
1970	28.73	28.73

A balanced budget was reached in 1968 although it was only foreseen by the first plan for 1970. The increased revenue is due to economic expansion, as well as to slight changes in taxation.

Development Expenditure Within the First Plan Period

(million \$ U.S.)

	<u>Public</u>	<u>Private</u>	<u>Total</u>
Transport and communications	33.22	8.50	41.72
Town planning, housing	7.02	11.33	18.35
Rural economy	20.81	3.23	24.05
Industry and trade	5.73	9.71	15.44
Education	5.40	1.21	6.62
Health	4.83	0.56	5.40
Other social and cultural expenditure	0.74	-	0.74
Administration	3.40	-	3.40
Total	<u>81.15</u>	<u>34.53</u>	<u>115.72</u>

5. Industrial products and technology - main manufacturing industries:Main Enterprise Units in 1970

	<u>Located in Lomé</u>	<u>Located outside of Lomé</u>	<u>Total</u>
Electric energy	1	2	3
Mining and quarrying	-	2	2
Food industry	4	4	8
Textiles	1	6	7
Construction materials	4	1	5
Fertilizers - chemical industry	6	-	6
Other	1	-	1
Total	<u>17</u>	<u>15</u>	<u>32</u>

Evolution of the Industrial Production of the Main Enterprises

<u>Industry</u>	<u>Units</u>	<u>1966</u>	<u>1969</u>	<u>1970</u>
Electric energy				
CEET	1,000 kwh	14,387	24,700	-
COTOMIB	1,000 kwh	24,000	32,800	-
Phosphates	1,000 tons	1,111	1,447	1,517
Starch-manioc	Tons	410	4,300	5
Starch-tapioca	Tons	-	2,425	-
Palm-oil	Tons	693	800	-
Beer brewing	Hectolitres	25,000	70,000	-
Soft drinks	Hectolitres	15,000	27,000	-
Textiles				
Raw texture	Million yards	-	2.5	2.5
Printed texture	Million yards	-	5.5	7.9
Plastics	Million pieces	-	8	n.a.
Footwear	Pairs	-	150,000	300,000
Soap	Tons	-	800	n.a.
Perfumes	Litres	-	12,000	n.a.
Marble bricks	Tons	-	n.a.	3,600
Salt	Tons	-	n.a.	n.a.
Clinker-crushing	Tons	-	n.a.	n.a.
Clothing	-	-	-	-

Activities in industry have been increasing rather rapidly (9% annual growth at constant prices). In 1970 industry contributed 19.4% of the total GDP. However, the industrial sector still consists of a rather large number of artisans, a few processing plants for agricultural products, a few industrial enterprises and of small family-type service enterprises.

6. Industry - related resources and sectors:

Changes in Output of Principal Agricultural Products
(000 metric tons)

<u>Products</u>	<u>1965-1966</u>	<u>1970</u>
Cocoa	14.30	22.50
Coffee	13.58	17.20
Palm kernels	15.30	16.66
Cotton seeds	8.10	6.00
Cotton lint	3.00	n.a.
Ground-nuts	3.83	18.00
Karite	n.a.	1.76
Kapok	n.a.	0.50
Yams	n.a.	430.00
Cassava	n.a.	445.00
Igram	n.a.	595.00
Maize	72.90	79.75
Millet-sorghum	n.a.	96.18
Rice	13.80	18.19
Beans	n.a.	14.72
Manioc	n.a.	585.00
Bananas	n.a.	29.00
Ananas	n.a.	24.00
Agrums	n.a.	22.93
Tomatoes	n.a.	7.65
Gombo	n.a.	6.51

Agricultural production which represents 44.5% of the total GDP grew at an annual rate of 7.2% at constant prices during the first plan period. However, this sector is considered as not sufficiently developed, since about 85% of the population live on it and 78% of the working force is involved in it. Further, the extensive methods employed can only produce a low output resulting in low income for the peasants and almost non-existent saving possibilities. Nevertheless, the agricultural products involving industrial processing have an important impact on exports.

Goods of Agricultural Origin in Total Exports
(%)

1966	52.6
1967	52.3
1968	53.9
1969	58.8

Index of Agricultural Production 1965-1970
(1961-1965 = 100)

	<u>Total production</u>	<u>Per capita production</u>
1965	106	101
1966	102	95
1967	112	102
1968	120	106
1969	121	104
1970	124	104

Main Exports from 1966 to 1970
(million \$ U.S.)

	<u>1966</u>	<u>1969</u>	<u>1970</u>
Cocoa	6.80	16.29	22.00
Coffee	7.90	7.07	n.a.
Palm kernels	2.20	1.94	n.a.
Ginned cotton	1.11	0.62	n.a.
Shelled ground-nuts	0.51	0.76	n.a.
Coprah	0.15	0.14	n.a.
Manioc (flour and starch)	0.12	0.34	n.a.
Tapioca	-	0.28	n.a.
Phosphates	13.76	13.58	15.48
Diamonds	-	2.60	n.a.

Main Imports from 1966 to 1969 by Broad Categories
(million \$ U.S.)

	<u>1966</u>	<u>1969</u>
Food, beverages, tobacco	10.70	12.88
Energy - lubricants	1.95	2.74
Primary commodities (animal and vegetable)	0.73	2.06
Raw materials (mineral)	0.40	0.39
Manufactured goods (semi-finished)	6.41	7.68
Manufactured goods:		
for agriculture	0.19	0.30
for industry	9.57	11.57
for consumption	17.24	21.34

7. Overall economic development strategy and policy:

The major objectives of the Togolese Government have been:

- to increase the economic independence by ensuring budget and external payments equilibrium which were both reached during the first plan period;
- to improve the work of newly-established regional organizations for development (Sociétés Régionales d'Aménagement et de Développement, SORAD);
- to raise the dynamism of the agricultural sector by carrying out research for the elaboration of new development programmes and for a structural improvement of production;
- to benefit from low cost labour and the fiscal system in order to promote efficiency;
- to promote exports of finished or semi-finished manufactured goods instead of primary commodities;
- to enlarge the domestic market through an increase of the rural population's purchasing power.

8. Regional Co-operation:

Origin of Exports and Imports by Regions in 1969
(million \$ U.S.)

<u>Countries</u>	<u>Exports</u>		<u>Imports</u>	
	<u>Value</u>	<u>%</u>	<u>Value</u>	<u>%</u>
EEC		<u>81.80</u>		<u>51.10</u>
France	15.84	34.09	18.87	31.99
The Netherlands	8.80	18.94	3.28	5.56
Federal Republic of Germany	7.26	15.62	3.98	6.75
Belgium/Luxembourg	4.54	9.77	0.90	1.53
Italy	1.57	3.37	3.13	5.30
Japan	1.77	3.80	4.23	7.17
United Kingdom	1.23	2.64	7.20	12.21
USSR	1.03	2.21	1.41	2.39
Ghana *	0.11	0.23	1.50	2.54
WAMU		<u>2.58</u>		<u>3.12</u>
Dahomey *	0.65	1.40	0.54	0.91
Senegal	0.19	0.40	0.37	0.62
Niger	0.17	0.36	0.32	0.54
Upper Volta *	0.10	0.21	0.09	0.15
Ivory Coast	0.10	0.21	0.53	0.90
United States	0.07	0.15	3.05	5.17
	<u>43.50</u>	<u>93.63</u>	<u>49.45</u>	<u>83.82</u>
Other countries	2.95	6.34	9.54	16.17
Total	<u>46.45</u>	<u>100.00</u>	<u>58.99</u>	<u>100.00</u>

* / Togo's neighbouring countries.

Togo belongs to several regional organizations, such as the West African Monetary Union (WAMU) and its Central Bank (with Dahomey, Ivory Coast, Mauritania, Niger, Senegal and Upper Volta). These countries have the same currency (CFA Francs); they also

belong to the West African Economic Community and to the "Conseil de l'Entente". The latter tries to promote a complete trade liberalisation and a unified tariff and fiscal schedule.

Togo is also a member of the Common Organization of African and Malagasy (OCAM) together with the Central African Republic; the Congo, Ivory Coast, Madagascar, Senegal and Chad and is thus associated with the European Economic Community through the Yaoundé Agreement.

Togo defends its interests concerning some of its main products by being a member of the Cocoa Producers' Alliance, of the African and Malagasy Organization for Coffee and of the Common Sugar Market.

However, Togo has very few products to offer to the African States, except some phosphates, marble and a few industrial products as beer, soap and shoes; the percentage of its exports to its main African partners only reached 2.6% of the total exports.

Imports from Togo's African partners amount to 3.12% of the total imports. A certain part of the Togolese imports are unofficially re-exported to neighbouring countries, especially to Ghana where import restrictions are rigid.

Trade with the European Economic Community is of major importance. 81.8% of the Togolese exports are sold to the European Community and 51.13% of the imports come from the European Economic Community as a result of association through the Yaoundé Agreement.

9. Systems for planning and plan implementation:

The first plan has been executed through the country's general and technical administrative systems.

The main institutions involved were the following:

- Ministry of Trade, Industry and Tourism;
- Ministry of Finance, Economy and Planning;
- Ministry of Rural Economy.

The specialized bodies involved in the industrial development on the national level are:

- the Planning Department;
- the Department of Industry (Direction de l'Industrie);
- the National Centre for the promotion of small and medium-scale industries;
- the Chamber of Commerce, Industry and Agriculture.

Their co-ordinated action is to identify projects, control their execution under the best conditions and to bring particular attention to promoters of national projects.

The Togolese Development Bank deals with the identification of investment possibilities in the trade industry and services connected to production. Problems of promotion and technical assistance to enterprises either created or to be created, as well as the mobilization of domestic and external resources are also among its duties. 60% of the shares of the Togolese Development Bank are owned by the state.

The Economic and Social Council, created in 1967, is a consultative body of 25 members chosen in the public and private sectors. It is concerned with advising the Government on questions of economic development.

The National Research Institute is involved in the study of the natural resources available and in the feasibility of certain projects.

At the regional level, the first plan created five "Regional Development Organizations" (Sociétés Régionales d'Aménagement et de Développement, SORAD) corresponding to the five economic regions of the country. The Sociétés Régionales d'Aménagement et de Développement are responsible for the execution of all projects and of agricultural development action in the regions. They enjoy an autonomous financial management.

10. Problems encountered through the first plan period:

Problems of dependency:

- dependency of the primary sector on natural factors;
- financial dependence from abroad;
- dependence on technical assistance.

Narrowness of the domestic market;

Large predominance of the agricultural sector in the domestic economy;

Difficulty in mobilizing savings;

Unprofitable speculation;

Unemployment due to unorganized education and rural exodus;

Lack of trained personnel;

Weakness of the development administration and structures;

Lack of cheap energy;

Unequal development amongst the different regions of the country.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1971-1975

1. General goals and objectives:(i) Planned growth:

	<u>1970</u>	<u>1975</u>	<u>Average annual increase</u>
Industrial GDP/capita (\$)***	24.9	34.9	6.9%
Industrial GDP/capita (\$)*	11.1	20.2	12.7%
Total GDP/capita (\$)	132.6	168.0	4.8%
Population (000)**	2,006	2,287	2.7%
Industrial GDP (million \$ U.S.)***	50.1	79.7	9.7%
Industrial GDP (million \$ U.S.)*	22.2	46.3	15.8%
Total GDP (million \$ U.S.)	266.0	384.3	7.6%
Industry % of total GDP***	18.8	20.7	-
Consumption (million \$ U.S.)	201.9	276.3	6.4%
Investment (million \$ U.S.)	46.9	80.4	11.3%
Exports (million \$ U.S.)	n.a.	n.a.	n.a.
Imports (million \$ U.S.)	n.a.	n.a.	n.a.
Employment	n.a.	n.a.	n.a.

* / excluding handicraft.

** / The population figure for 1975 is an estimate.

*** / including industry, mining and quarrying and handicraft.

(ii) Other objectives:

- to increase economic independence;
- to promote among the population the "development notion" and direct its effects towards savings and investment;

- to achieve national integration and to reduce regional disparities;
- to raise agricultural production by promoting intensive cultures in carrying out hydroagricultural projects (Sio-Haho valley, Togo lake);
- to raise industrial production;
- to improve infrastructure;
- to train in the country the staff needed for development projects (university, technical schools).

2. Strategy and policy:

(i) General:

The general programme for industrialization which was included in the first plan remains valid; however, some alterations are necessary to create a climate more favourable to industry:

- to promote an import-substitution policy and determine, according to the local market conditions, the commodities to be produced domestically;
- to develop as far as possible the industrial transformation of some agricultural products, since Togo is a rural country.

Togo will have to go beyond the narrowness of its domestic market by adjusting its industrial policy to those of the West African states. This presumes the creation of multinational enterprises working with African capital and staff under African leadership.

Concerning the association with the European Economic Community, it will continue after 1970, since the Yaoundé Agreement has been renewed on the same basis.

The state will continue to direct industrial development by co-ordinating most of the different development institutions, by identifying and executing projects and by giving assistance to promoters of national projects.

It will be necessary to promote Togolese enterprises; this will require the formulation of a national protectionist policy (selective or temporary protection).

(ii) Manpower and productivity:

Education:

The goals of the first plan have not been totally reached. Therefore, those of the second plan remain almost the same, but particular attention will be given to the following aspects:

- the orientation of pupils at all levels according to their abilities and the state's development requirements;
- the rapid preparation and application of an educational reform.

Primary education:

The overall enrolment will have to increase from 206,283 in 1970 to 266,283 in 1974-1975. This development will require the building of about 1,000 new class-rooms. The main problem will be to control the enrolment rate which will tend to grow too fast due to the economic development and not in relation with the financial possibilities.

Secondary education:

Special efforts will be made:

- to avoid multiplication of complementary courses;
- to transform some complementary courses into colleges;
- to control private schools;
- to introduce technology in secondary education;
- to direct some of the students towards technical centres for vocational training;
- to reduce the number of pupils in the classes in order to improve teaching quality.

The number of students will increase from 22,800 in 1970-1971 to about 59,900 in 1974-1975.

Technical education:

This branch has to be better adapted to the requirements of the national economy. A specialization of the two main schools (in Lomé and Sokodé) will be undertaken. The existing training centres in Palimé, Bassari and Dapango will be better equipped and some experimental centres for practical tuition will be created for pupils who cannot afford a secondary education.

High-level education:

The second plan will extend the activities of the secondary school teachers' training colleges of Atakpané and will develop the newly-opened university.

According to the figures of 1969-1970, the number of pupils who have completed primary education and who seek employment will total about 50,000 during the second plan period. Those coming after completing secondary education will be about 16,000.

Employment:

Employment being the weak point in the development strategy, some strong measures have to be taken in this respect:

- to re-examine the general rules of employment and particularly the manpower recruitment conditions;
- to enforce a strict application of the salary scales;
- to renew technical education according to the needs for qualified manpower;
- to protect local manpower engaged in certain industries.

Manpower Distribution of the Population

	<u>1970</u>	<u>1975</u>	<u>Increase in employment 1970-1975</u>
Active population in agriculture	517,000	598,000	81,000
Active population in other sectors	<u>149,000</u>	<u>172,000</u>	<u>24,000</u>
Total active population	666,000	770,000	104,000

(iii) Investment and capacity utilization:

Total Investment During the Second Plan Period
(million \$ U.S.)

	<u>Public</u> <u>sector</u>	<u>Private</u> <u>sector</u>	<u>Total</u>	<u>%</u>
Administrative organization and public services equipment	10.59	-	10.59	3.90
Transport and communications	93.61	3.42	97.03	35.51
Urban and tourist equipment	27.67	12.13	39.80	14.56
Rural economy	26.79	13.44	40.23	14.72
Industry, handicraft and trade	15.18	40.76	55.94	20.47
Education	9.98	1.03	11.01	4.02
Health	7.91	0.09	8.00	2.92
Other socio-cultural equipment	10.62	-	10.62	3.90
Total	202.35	70.87	273.26	100.00

Investment in Industrial Sector During the Second Plan Period

(million \$ U.S.)

<u>Programmes</u>	<u>Total value</u> <u>1971-1975</u>	<u>%</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Mining, oil and water research	6.11	12.10	1.10	1.69	1.38	0.97	0.96
Industrial investigation	0.36	0.71	0.07	0.07	0.07	0.07	0.08
Development of existing enterprises	15.45	30.60	5.56	3.65	2.05	2.11	2.06
Projects under construction	17.02	33.70	6.75	2.34	2.88	2.52	2.52
New projects	11.55	22.87	3.07	5.71	1.68	0.28	0.80
Total	50.50	100.00	16.55	13.46	8.06	5.95	6.42
Industry	50.50	90.27	n.a.	n.a.	n.a.	n.a.	n.a.
Handicraft	0.28	0.50	0.12	0.16	-	-	-
Trade	5.16	9.25	0.91	0.99	0.94	1.41	0.90
Total	55.94	100.00	17.58	14.61	9.00	7.35	7.32

Total Planned Investment in Development
(million \$ U.S.)

	<u>Public</u> <u>sector</u>	<u>Private</u> <u>sector</u>	<u>Total</u>	<u>%</u>
Industry	n.a.	n.a.	55.94	20.47
All sectors	202.35	70.87	273.26	100.00

Institutions for industrial investment:

In 1971, the National Investment Organization (Société Nationale d'Investissement) has been created. Its goals are to mobilize and direct national savings so as to promote investment operations of economic and social interest to the sectors of energy, industry, agriculture, handicraft and trade. The new organization will be able to deal with the following:

- the accomplishment of all studies and financial transactions liable to promote the country's development;
- the granting of loans and guarantees for the financing of investments of particularly high economic and social interest;
- the promotion of new priority enterprises with or without private sector participation;
- the creation of infrastructure which is necessary for the economic development of the country;
- the purchase of companies' shares;
- the management of the state's holdings;
- the administration of the public services and parastatal funds;
- the management of the National Investment Fund and the National Guarantee Fund for Togolese companies;
- the security of the state's markets;
- the administration of external funds for production investments.

It is also expected that the Société Nationale d'Investissement (National Investment Organization) will be entrusted with all the priority developing projects of the second plan.

The Banque Togolaise de Développement (Togolese Bank for Development) and the Caisse Nationale de Credit Agricole (National Bank for Agricultural Credits) will give their assistance to production units.

The Centre National de Promotion des Petites et Moyennes Entreprises (National Centre for Promotion of small-scale and cottage companies) will identify and select projects, carry out technological research, prospect markets, organize and manage enterprises.

(iv) Interconnections between growth factors:

	<u>Investment/Output Ratio</u>		
	Projected increase 1971-1975 (million \$ U.S.)	New investments 1971-1975 (million \$ U.S.)	Incremental capital output ratio
Total GDP	118.30	273.26	2.36
Industry*	24.03	50.50	2.10

*/ excluding handicraft.

	As % of GDP	
	<u>1970</u>	<u>1975</u>
Gross domestic savings	11.3	21.1
Capital output	17.0	22.2
Foreign trade (imports of goods and services)	22.9	22.8

3. Data bases and projections:

Statistical data is unreliable. The calculation of certain indices, particularly of those concerning the capital coefficient, the productivity of different factors of production, the productivity by branches, the rate of savings and the level of life by sector has not yet been possible due to the lack of precise statistics and consumption inquiries. Their development has been foreseen for the second plan period, as well as the "regionalization" of the Direction de la Statistique (Board of Statistics).

4. Planned growth of industrial sector:(i) Planned growth of manufacturing sector:

Selected industries	Output units	Increase in output units		New investments 1971-1975 (million \$ U.S.)	Increase in employment 1971-1975
		1970	1975		
Palm-oil	Tons	5,000	6,559	4.46	n.a.
Beer brewing	Hectolitres	87,000	200,000	0.91	40
Soft drinks	Hectolitres	15,000	20,300	0.72	19
Ice-cream	Tons	1,500	5,000		
Footwear	Pairs	300,000	370,000	0.44	34
Textiles	Metres	6,000,000	10,000,000	5.97	577
Plastics	Pieces	Stopped production	n.a.	0.05	n.a.
Accumulators	Pieces	-	24,000*	0.09	20
Metallic furniture	Pieces	n.a.	n.a.	0.05	n.a.
Phosphates	Tons	135,000	180,000	7.20	73
Total				<u>19.89</u>	

* / Initial production per year.

(ii) Planned growth of electricity:New Investments 1971-1975

(million \$ U.S.)

Extension of the Lomé network	1.08
Extension of the Palimé network	0.07
Electrification of Aveta	0.36
Electrification of Tsévié	0.10
Electrification of Nualja	0.07
Electrification of Mango	0.10
Electrification of Pagonda	0.07
Studies for electrification of 9 centres	0.18
Total	2.05
Akossombo-Lomé line*	2.59
Grand total	4.64

*/ Agreements have been signed by Ghana, Dahomey and Togo for the provision of electricity (high tension) in Dahomey and Togo from the Akossombo dam. The construction of the line will be completed during the second plan period.

In this respect the problem for Togo is first to extend its network and then produce cheaper electric energy.

(iii) Planned growth of mining:

The mining research (uranium, dolomite ore, etc.) undertaken through a joint financing of UNDP and Togo brought some positive results during the first plan period;

it will be undertaken in six different regions as one of the second plan priorities under the supervision of the National Office for Mining Research (Bureau National de Recherches Minières). The amount invested will be \$3.95 million for the five-year period 1971-1975.

Concerning the search for oil, an agreement between the Togolese Republic and an American Company (the Frontier Togo Oil Company) has been reached; the exploratory work by Union Carbide (at 12 nautical miles from Lomé) will continue.

(iv) Priority of sectors:

Priority has been given to the development of the following industries:

- Transformation of agricultural goods:
 - Palm-oil, palm-kernels;
 - Canned tomatoes;
 - Distilling (palm-trees, ananas);
 - Ground-nut oil;
 - Coffee processing;
 - Cocoa processing;
- Mining, petrol and water research.

(v) Infrastructure connected with industry:

The goals of the second plan concerning infrastructural development have been fixed according to three main economic factors:

- The building and operation of the cement production plant in Aveta required the fitting-up of the harbour of Lomé and the construction of a railway line from Aveta to Lomé
- The harbour in Lomé should provide Upper Volta with utilization facilities. Therefore, the road from Lomé to Upper Volta border has to be completed and asphalted with priority.
- The necessity of providing the country with a modern telecommunication network.

- 425 -

The existing harbour equipment represents only one third of the total projected installation. The extension will raise the annual capacity of the harbour from 400,000 tons to 700,000 tons.

The main road axis Lomé - Upper Volta will be asphalted at a total cost of \$22.2 million.

Some transversal road liable to facilitate economic communications between Togo and its neighbours, Ghana and Dahomey, have to be asphalted during the second plan period, at a cost of \$6 million.

The telecommunications programme planned for the period of 1971-1975 amounts to \$5.5 million.

(vi) Relationships with non-industry sectors of the economy:

5. Planned industrial projects:Inventory of Projects Under Construction

<u>Industries</u>	<u>Output units</u>	<u>Initial production per year</u>	<u>Investments (million \$ U.S.)</u>	<u>Employment</u>	<u>Investment per employee (\$ U.S.)</u>
Soap	Tons	1,220	0.10	45	2,222
Detergents	Tons	450	0.14	21	6,667
Painting	Tons	400	0.04	18	2,222
Matches	Boxes	30,000,000	0.36	45	8,000
Industrial gas	Cubic metres	62,000	0.16	16	10,000
Salt	Tons	5,000	0.72	50	14,400
Total			<u>1.52</u>	<u>195</u>	

Inventory of New Industrial Projects

<u>Food industry</u>	<u>Output units</u>	<u>Consumption in 1969</u>	<u>Initial production per year</u>	<u>Investments 1971-1975</u>	<u>Employment</u>	<u>Investment per worker (\$ U.S.)</u>
Flour milling (wheat)	Tons	20,000	15,000	1.08	33	32,727
biscuits	Tons	134.7	n.a.	0.23	30	7,667
Paste	Tons	279	140	0.07	15	4,667
Canned fruit and fruit juices	Tons	20	21,000	0.50	39	12,820
Canned tomatoes	Tons	1,166	3,000	0.61	25	24,400
Distilling	Tons	1,570	n.a.	0.19	15	12,667
Vegetable proteins	Tons	-	600	0.43	29	14,827
Ground-nut oil	Tons	566	1,000	0.11	41	2,683
Cocoa butter	Tons	-	2,250	1.08	35	30,857
Cocoa oil cakes	Tons	-	1,875			
Coffee processing	Tons	3.1	n.a.	0.27	30	9,000
Meat processing (slaughter-houses and cold storage rooms)	-	-	-	1.44	17	64,706
Palm-oil (kernels)	Tons	-	n.a.	1.44	n.a.	-
Total food industry				<u>11.66</u>	<u>309</u>	

Inventory of New Industrial Projects (continued)

<u>Mechanical and electrical industry</u>	<u>Output units</u>	<u>Consumption in 1969</u>	<u>Initial production per year</u>	<u>Investments 1971-1975 (million \$ U.S.)</u>	<u>Employment</u>	<u>Investment per worker (\$ U.S.)</u>
Nail production	Tons	488	500	0.07	10	7,000
Tyres retread	Tons	479	n.a.	0.09	17	5,470
Radio transistors	Pieces	n.a.	5,500	0.06	19	3,158
Bicycles	Pieces	n.a.	4,000	0.14	20	7,000
Motorcycles	Pieces	n.a.	2,000			
Total mechanical and electrical industry				—	—	
				0.36	66	
<u>Chemical and pharmaceutical industry</u>						
Industrial glue	Tons	40	n.a.	0.04	10	4,000
Pharmaceutical products	Tons	508	n.a.	0.75	100	7,500
Phosphated fertilizers	Tons	n.a.	14,000	1.88	56	33,571
Bandaging products	Tons	n.a.	n.a.	0.36	40	9,000
Insecticides and disinfecting products	Tons	349	n.a.	0.18	66	2,727
Total chemical and pharmaceutical industry				—	—	
				3.21	272	

Inventory of New Industrial Projects (continued)

<u>Other industries</u>	<u>Output units</u>	<u>Consumption in 1969</u>	<u>Initial production per year</u>	<u>Investments 1971-1975</u>	<u>Employment</u>	<u>Investment per worker (\$ U.S.)</u>
Iron smithery	Tons	n.a.	n.a.	0.12	15	8,000
Iron-windows factory	Tons	-	n.a.	0.05	16	3,125
Enamel factory	-	-	-	0.17	n.a.	-
Coco rasping	-	-	-	0.11	n.a.	-
Furniture	-	-	-	0.09	n.a.	-
Galvanized iron buckets	-	-	-	0.02	n.a.	-
Petrol refinery	-	-	-	n.a.	n.a.	-
Industrial centre	-	-	-	1.30	26	-
Total				<u>1.86</u>	<u>57</u>	
Overall total				<u>18.63</u>	<u>899</u>	

The main criteria for selecting the above-mentioned projects was the necessity of producing at home part of the consumer goods which were imported until now.

The installation of a clinker-crushing factory with a capacity of 60,000 tons of cement per year had been foreseen in the first plan. The Government gave up this project when an important limestone deposit was found in Aveta and a comparative study of deposits in Togo and Dahomey (Toffo) was requested by the States of the "Conseil de l'Entente"; it was intended to create a large-size cement production plant proportionate to their common needs. The first company was created through the co-operation of Dahomey, Togo and two French companies for the evaluation of the situation; the French firm "Lambert Frères" then obtained the authorization to undertake a study of the Aveta deposit with the possibility to work on a cement production plant. The preliminary results being favourable, a new mixed multinational company was created (les Ciments de l'Afrique de l'Ouest, CIMAO) with the participation of Togo, the Ivory Coast and "Lambert Frères". External sources for investments have been found, since only regional co-operation can make the company work with profit, the absorption capacity of Togo being rather weak.

<u>Member countries of the Conseil de l'Entente</u>	<u>Demand for tons/year</u>
Ivory Coast	400,000
Dahomey	95,000
Togo *	86,000
Upper Volta	65,000
Niger	60,000

*/ Amount of cement imported in 1969. The growth rate of the cement demand per year is 7%.

The programme of the CIMAO in Togo is the following:

- building of a clinker-crushing unit for local needs;
- building of a clinker-production unit for the countries of the Conseil de l'Entente and Ghana.

The total cost of the two projects amounts to \$43.2 million of which \$15.5 million are foreseen for the second plan period.

385 new employments will be created for the execution of the plant (2,000 during the building period).

6. Organizational and institutional changes required for industrial plan implementation:

The different institutions working on plan implementation will have to co-ordinate their actions to secure the projects' identification and execution under the best conditions.

The state will have to intervene financially by taking shares in the "strategic enterprises"; the management of its participation is being committed to a new section which will give precise instructions to the state's representatives in the industrial enterprises.

The Togolese Bank for Development will have to intervene more regularly in the financing of industrial projects; the Agricultural Products Office (OPAT) will have to pursue its action in favour of the industries.

7. Problem areas particular to the industrial sector:

Some obstacles remain and slow down the improvement of industrial activity:

- high cost of capital;
- high cost of ground-rent in the industrial zone and in the free port of Lomé;
- high cost of energy;
- lack of "Loan Guarantee" office.

Studies have, therefore, been undertaken to create a "Guarantee Fund" for small and cottage industries and to revise the rates of ground-rents for the industrial and free zone in the port of Lomé as soon as possible. The decision has been taken to provide enterprises settling in the zone of the Lomé port with electrical energy at preferential prices.

SUMMARY OF THE INDUSTRIAL DEVELOPMENT

PLAN OF ZAMBIA: 1972 - 1976^{*/}

- I. General background information

- II. Summary of the industrial development plan

^{*/} Second National Development Plan, January 1972 - December 1976, Ministry of Development Planning and National Guidance, Lusaka, December 1971, 267 pp.; Supplement to the Second National Development Plan, 1972-1976, Programmes and Projects, January 1972, 140 pp.

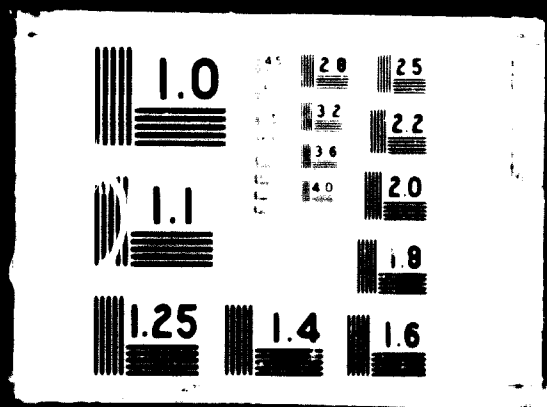


22.7.74

9 OF 10

D O

4 9 9 7



BIBLIOGRAPHY

- Africa Contemporary Record: Annual Survey and Documents, 1970-1971, London, 1971.
- Africa South of the Sahara 1972: Europa Publication Ltd., London, 1972.
- A.O. Ballantyne (editor): Soils of Zambia, Mount Makulu Research Station, Zambia, 1968.
- Economic Reports: Zambian Ministry of Finance (annually), Lusaka.
- R. Hall: Zambia, Pall Mall Press, London, 1965.
The High Price of Principle, Hodder and Soughton, London, 1969.
- IBRD: Economic Position and Prospects of Zambia, Eastern Africa Department, 24 June 1970.
Memorandum on Recent Economic Developments in Zambia, Eastern Africa Department, 28 July 1971.
- K. Kaunda: Zambia's Economic Revolution, Lusaka, 1968.
- C. Legum (editor): Zambia: Independence and Beyond, London, 1966.
- Monthly Digest of Statistics: Central Statistical Office, Vol.VII, No.10, Lusaka, October 1971.
- UN: Monthly Bulletin of Statistics, October 1971.
- UN: Statistical Yearbook, 1970.

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Zambia:

Area: 753,000 km²

Major cities */ (1969 census):

	<u>Population</u>
Lusaka	262,182
Kitwe	199,798
Ndola	159,876
Mufulira	107,802
Chingola	103,292
Livingstone	43,292

*/ including the population of peri-urban areas.

Other data: (1970)

	<u>Number</u>
Total number of licensed vehicles	99,609
Passenger cars (new vehicles)	5,984
Vans and trucks (new vehicles)	5,213
Radio receivers	80,000
Television receivers	17,500
Telephones	43,300
Annual electricity consumption	3,950 million kwh

Exchange rates */:

<u>Unit</u>	<u>Kwacha equivalent</u>
US dollar	0.7143
Pound sterling	1.709
Swiss franc	0.165
French franc	0.129
German mark	0.196
Italian lira (100)	0.114

*/ On 16 January 1968 a new monetary unit, the Kwacha, replaced the Zambian pound at the rate of 2 Kwachas per Zambian pound.

2. Population:

	<u>1963</u>	<u>1969</u>
Total Africans (000)	3,510	4,099
Change 1963-1969 in %		+17.3
Annual rate of growth in %		2.6
Density/km ²	4.6	5.4
Non-Africans (000)	87	60
Urban population in %	19.0	27.5
Rural population in %	81.0	72.5
Labour force ^{*/} in %	n.a.	32.6**
Working population in %	n.a.	17.8***

***/** Those persons who are either working, seeking work or available for work.

****/** As the 1969 census was conducted during the slack agricultural season, a good number of workers in the agricultural sector belonging to categories of self-employed and unpaid family workers was not accounted for in this census.

*****/** If the seasonally-unemployed persons were excluded, the extent of unemployment in the rural areas would be much less than what these figures show.

Working Population Classified by Occupational Groups in 1969

<u>Occupation</u>	Africans		Non-Africans		Total	
	(000)	(%)	(000)	(%)	(000)	(%)
Professional, technical and related	11.7	1.6	9.6	35.6	21.3	2.8
Administrative and managerial	7.5	1.0	2.5	9.3	10.0	1.3
Clerical and related activities	59.4	8.1	4.1	15.2	63.5	8.4
Sales workers	37.6	5.2	2.1	7.8	39.7	5.2
Service workers	86.8	11.9	0.6	2.2	87.4	11.5
Agricultural and allied sector workers	329.3	45.1	1.0	3.7	330.3	43.6
Production and related workers	197.5	25.1	7.1	26.3	204.6	27.0
Total	729.8	100.0	27.0	100.0	756.8	100.0

Wage Employment in Various Industries
(000)

	<u>1966</u>	<u>Dec. 1970</u>
Agriculture, forestry, fisheries	35,400	34,600
Mining and quarrying	54,800	64,100
Manufacturing	30,900	36,300
Construction	71,200	73,800
Electricity, water, etc.	3,700	3,200
Commerce	28,500	32,500
Transport and communications	20,700	23,100
Services (excluding domestic)	91,800	87,200
Domestic service	35,000	35,000
Total	<u>337,000</u>	<u>389,800</u>

Growth Rate of Employment

	<u>1966</u>	<u>1970</u>	<u>Annual growth rate</u>
African employees	307,000	362,370	4.2%
Other employees	29,400	27,430	1.7%
Total	<u>336,400</u>	<u>389,800</u>	<u>3.7%</u>

Education:

Population under 14 years of age in 1969	45.8%
Population at school age (7-19)	30.9%
Primary enrolments from 7 to 14 years of age	76.8%

Number of Schools, Pupils and Teachers in 1970

	Number of institutions	Number of pupils		Total	Number of teachers	Teacher/pupil ratio
		Male	Female			
Primary	2,564	385,676	308,994	694,670	13,826	50.2
Secondary	113	35,205	17,267	52,472	2,465	21.3
Trade and technical	6	n.a.	n.a.	n.a.	788	n.a.
Teacher training	9	1,258	888	2,146	182	11.8
University	1	1,253	216	1,469*		

*/ of which 285 are part-time students.

The expenditure on education amounted to 14.3% of the State's expenditure in 1968 (\$44.65 million) and to 15.1% in 1970 (\$58.13 million).

3. GDP:

<u>At current prices (factor cost)</u>	<u>1966</u>	<u>1969</u> ^{*/}	<u>Average annual growth</u>
Manufacturing GDP/capita (\$)	22.00	25.14	4.5%
Industrial GDP/capita (\$) **	129.51	182.45	12.0%
Total GDP/capita (\$)	235.88	338.16	12.8%
Population (000)	3,830	4,099	2.3%
Manufacturing GDP (million \$ U.S.)	84.28	103.04	6.9%
Industrial GDP (million \$ U.S.) **	496.01	747.85	14.6%
Total GDP (million \$ U.S.)	902.28	1,386.39	15.4%
Manufacturing % of total GDP	9.3	7.4	
Industry % of total GDP **	54.9	53.9	

^{*/} Preliminary estimates.

^{**/} Mineral royalties paid to the Government are treated as indirect taxes.

Source: Monthly Digest of Statistics, Lusaka, October 1971.

Structure of Gross Domestic Product at Current Factor Cost
 (current prices)
 (million \$ U.S.)

	1966		1969 ^{*/}	
	<u>Value</u>	<u>%</u>	<u>Value</u>	<u>%</u>
Agriculture, forestry, fisheries	84.70	9.4	93.80	6.8
Mining and quarrying ^{**}	336.13	37.2	567.55	40.9
Manufacturing	84.28	9.3	103.03	7.4
Construction	75.60	8.4	77.27	5.6
Electricity and water	10.36	1.2	20.44	1.5
Trade	109.62	12.1	143.36	10.3
Financial institutions and insurances	16.10	1.8	49.56	3.6
Real estate ^{***}	21.28	2.4	41.30	3.0
Transport and communications	45.36	5.0	91.28	6.6
Government administration	49.98	5.5	64.12	4.6
Education	21.42	2.4	45.92	3.3
Health	12.18	1.3	26.18	1.9
Personal services	20.44	2.3	39.34	2.8
Other	14.84	1.6	23.24	1.7
Total GDP	902.29	100.0	1,386.39	100.0

^{*/} Preliminary.

^{**/} Mineral royalties paid to the Government are treated as indirect taxes. Smelting and refining of metals are included.

^{***/} Includes also the ownership of dwellings and rent of the mining township at cost value.

4. Macro-economic indicators:

<u>Money supply:</u>	1966 - \$158.70 million
	1969 - \$254.80 million
	Average annual increase: 17.1%

Prices:Wholesale Price Index 1966 = 100

	<u>1967</u>	<u>1970</u>
All commodities (total)	98.9	117.4
Food, beverages, tobacco	111.0	142.0
Textiles, wearing apparel and leather products	100.1	118.5
Copper mining	92.2	112.0
Other metallic mining	91.8	103.3
Other mining and quarrying	119.5	153.8
Wood products and furniture	100.0	109.2
Paper and paper products	101.7	116.3
Chemicals, petroleum, rubber and plastic products	102.3	105.9
Metal products	103.6	118.1

Source: Monthly Bulletin of Statistics, Lusaka, October 1971.

Consumer Price Index 1962 = 100

	Combined index		Higher income index		Lower income index	
	<u>All items</u>	<u>Food</u>	<u>All items</u>	<u>Food</u>	<u>All items</u>	<u>Food</u>
1966	120.7	120.5	116.3	112.9	124.5	127.8
1967	126.9	126.9	122.2	118.2	130.7	134.4
1968	139.5	138.9	132.7	130.5	144.9	145.7
1969	144.8	142.5	138.5	132.8	148.4	148.0
September 1970	148.8	144.9	142.3	134.4	152.5	151.0

Source: Monthly Bulletin of Statistics, Lusaka, October 1971.

- 443 -

Total Value of Exports and Imports at Current Prices
1966-1970

(million \$ U.S.)

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Exports	690.75	657.99	762.14	1,073.08	1,000.70
Imports	-344.53	-428.81	-455.27	-436.51	-501.89
Balance	346.22	229.18	306.87	636.57	498.81

GDP:

1966 - \$ 902.28 million

1969 - \$1,386.39 million

Average annual increase: 15.4%

The balance of payments reporting is still very incomplete and the figures for items other than exports and imports of merchandise must be viewed with caution.

Central Government's Budgetary Position

(million \$ U.S.)

	<u>1968</u>	<u>Budget</u> <u>in 1970</u>	<u>Actual</u> <u>in 1970</u>
Recurrent revenue	428.4	467.6	604.8
Recurrent expenditure	316.4	341.6	383.6
Surplus on current account	112.0	126.0	221.2
Capital expenditure	270.2	208.6	217.0
Financing surplus or deficit	-158.2	-82.6	4.2
Financed by:			
Domestic resources	61.6	47.6	53.2
Foreign long-term capital inflow	65.8	40.6	30.8
Draw down (-) or build up (+) assets	30.8	5.6	88.2

Central Government's Recurrent Revenue

(million \$ U.S.)

	<u>1968</u>	<u>1970</u>
Income tax	120.95	209.43
Customs and excise	67.61	95.34
Fines and licences	4.76	5.32
Mineral revenue	187.60	240.10
Interest	16.52	29.96
Court fees and earnings of ministries	11.76	14.98
OSAS reimbursement	7.14	0.84
Miscellaneous	12.18	9.38
Loans (OSAS compensation)	-	-
Total recurrent revenue	<u>428.52</u>	<u>605.36</u>

5. Industrial products and technology - main manufacturing industries:

As a result of rapid expansion since the independence, the manufacturing industry was able to produce locally an estimated 36% of all manufactured goods consumed in Zambia in 1968. The share of manufacturing in GDP was already 9.6% by 1968 and was however declining to 7.6% by 1970.

The total number of industrial establishments increased from 412 in 1965 to 535 in 1969 (an increase of 30%). The largest group among existing industrial units belongs to the metalworking group, largely serving the mining industry and economic activities connected with it.

Number of Industrial Establishments

<u>Category</u>	<u>1965</u>	<u>1969</u>
Food industries	64	65
Beverages	27	7
Tobacco manufacturing	2	1
Textiles	68	101
Leather and footwear	2	4
Timber	40	43
Paper, pulp, cartons	6	12
Printing and publishing	19	23
Chemicals	15	28
Petroleum and coal derivatives	1	2
Rubber products	9	11
Glass and china	1	1
Plastics	2	13
Building materials	51	36
Non-ferrous metals	2	3
Metalworking	98	171
Other	5	14
	<u>412</u>	<u>535</u>

The First National Development Plan (1966-1970) has added a number of large-scale industrial units to the country's economy; among these are:

<u>Name and location of units</u>	<u>Products</u>	<u>Annual capacity</u>	<u>Year of starting production</u>
Zambia Sugar Co.	Raw sugar	40,000 tons	1968
Mwinilunga Fruit Canning Factory	Canned pineapples	300 tons	1970
Indeco Milling Ltd.	Mealie meals Bran	40,000 tons 5,000 tons	1968 1968
Lusaka Brewery	Beer	Expanded to 200 million bottles	1968
Kafue Textiles Ltd.	Textile fabrics	12.5 million metres	1970
Kabwe Industrial Fabrics Ltd.	Gunny bags Hessian cloth	5 million pieces 1.3 million metres	1970 1970
Zambia Clay Industries	Salt-glazed clay pipes Bricks	6,200 tons 2.7 million pieces	1969 1969
Chilanga Cement Ltd.	Cement	Expanded to 500,000 tons	1969
Dunlop Zambia Ltd. (Ndola)	Tyres	100,000 pieces	1969
Nitrogen Chemical Ltd. (Kafue)	Fertilizers and blasting compounds	75,000 tons	1970
Kafironda Explosives	Explosives	7,000 tons	1970
Truck Assembly Plant (Luanshya)	Trucks	20 per month	n.a.
Metal Fabricators of Zambia (Luanshya)	Copper wire and cable Aluminium cable	1,500 tons 200 tons	1970 1970

In addition, the strategic Tazama oil pipeline was completed in August 1968. This made it feasible to start with the establishment of Zambia's first oil refinery the "Indeni Petroleum Refinery" in Ndola which is expected to become operational in 1973 with a capacity of 650,000 tons of crude oil per annum.

6. Industry - related resources and sectors:

Forestry:

Progress was achieved in establishing forest reserves, the estate passing from 4.1 million hectares at the beginning of 1966 to 5.7 million hectares at the end of 1970. The plantation programme surpassed the plan targets and reached 12,900 hectares of pines and eucalyptus. The plantations are being developed to supply a wide range of processing, including saw timber, mining timber, poles, wood-chips and wood-pulp. Emphasis was given to the construction and operation of pole depots associated with the regional and local eucalyptus plantations; at the end of the period there were six principal depots and numerous sale points at plantations and trading centres.

Marketed Production of Main Agricultural Commodities

<u>Commodity</u>	<u>Unit</u>	<u>1966</u>	<u>1970</u>
Maize	Metric tons	377,580	124,370
Rice	Metric tons	n.a.	300
Sorghum (malted)	Metric tons	n.a.	530
Ground-nuts	Metric tons	11,530	3,270
Raw sugar	Metric tons	-	40,100
Fruits	Metric tons	n.a.	4,500
Vegetables	Metric tons	n.a.	20,000
Beef	Metric tons	10,800	11,800
Pork and bacon	Metric tons	870	1,150
Poultry (dressed)	Metric tons	1,920	5,440
Eggs	000 pieces	27,000	99,000
Fresh milk	000 litres	19,000	15,300
Tobacco			
Virginia	Metric tons	6,750	4,790
Burley	Metric tons	860	250
Turkish	Metric tons	210	19
Cotton seed	Metric tons	2,780	5,610
Kenaf	Metric tons	-	50

The value at current prices of the total of all recorded marketed production was \$44.6 million in 1970.

Value of Agricultural Output

(million \$ U.S.)

	<u>1966</u>	<u>1970</u>
Crop sector	25.9	14.7
Livestock sector	11.4	17.0
Total	37.3	31.7

Source: IBRD estimates (1971 mission).

The main reason for the decline in crop and beef production was the continuing departure of expatriate farmers. In 1970 the situation was aggravated by bad weather and the failure of the National Agricultural Marketing Board to make the necessary inputs (seeds and fertilizers) available in time. The decline in beef production was compensated by an increase in the production of poultry and eggs, Zambia now being self-sufficient in both poultry and eggs.

Minerals and mining:

Mineral Production

	<u>Unit</u>	<u>1966</u>	<u>1970</u>
Total copper	000 metric tons	586.0	683.3
Blister	000 metric tons	88.4	103.1
Electrolyte	000 metric tons	497.6	580.2
Zinc	000 metric tons	42.4	53.5
Lead	000 metric tons	18.8	27.3
Coal	000 metric tons	118.0	623.2
Cobalt	Tons	1,514.8	2,052.0
Value (million \$ U.S.)		635.73	936.91
Other mineral value (million \$ U.S.) ^a		4.42	5.99
Total value (million \$ U.S.)		<u>640.15</u>	<u>942.90</u>

^a/ silver, cadmium, limestone, amethyst, etc.

Mining is the country's largest productive sector with copper accounting for 96% of mineral production; Zambia is the third largest copper producer of the United States of America. The fall in output in 1970 was due to a cave-in at the Mifulira mine which accounts for 25% of Zambia's copper output. However, this was offset by the extremely favourable world market prices of copper so that the value of output actually exceeded the plan targets. In 1970 the Government took control of the copper

mines by acquiring 51% equity participation in two foreign companies. A separate parastatal body, the Mining Development Corporation (MINDECO), was set up to handle the mining business interests of the Government on a commercial basis. The previous royalties and export tax system were replaced by a mineral tax based on profit.

Cobalt is obtained as a by-product of the copper industry. The quantities obtained are not big, but the metal is highly valuable.

In 1970 the Government announced its intention to take a 51% equity participation in the lead and zinc mine on the same basis as in the copper industry.

Fuels:

Coal production only started in 1966 after the Unilateral Declaration of Independence by Southern Rhodesia. A washing plant had to be built to remove impurities, the quality produced not being good enough to be used in the copper industry. Zambia produced 800,000 metric tons of coal in 1971.

The potential for oil or gas in the country is very low; a comprehensive assessment by AGIP, Esso and a Romanian group of consultants turned out to be unsuccessful.

Power:

Attaining self-sufficiency in the electric power production was considered one of the main objectives of the First National Development Plan; the capital expenditure incurred during the plan period was 36% more than originally envisaged, mainly due to the Kafue hydroelectric scheme and the Luisiwasi hydropower scheme. The decision to establish a 600 MW Kariba North Bank hydroelectric scheme has already been taken by the Government, when completed (1974) it will ensure sufficient power for Zambia for several years ahead.

Transport:

The road network is well developed but consists mainly of unimproved earth roads. About 1,600 km of paved roads were built during the first plan period bringing the total mileage of paved roads to 3,000 km by the end of 1971.

Railways have had an important role in Zambia's economic development, particularly since it was affected by the Rhodesian Unilateral Declaration of Independence. China signed an agreement in July 1970 with Zambia and the United Republic of Tanzania by which she will provide an interest-free loan to the two states of \$401 million for the construction of the 1,600 km "Tan-Zam" railroad and for rolling stock. The railroad is due for completion in 1976.

During the first plan period the Zambia Airway was established (1967) and the Lusaka International Airport constructed; the number of secondary airports increased from 95 in 1964-1965 to 138 in 1970.

Main Exports
(million \$ U.S.)

	<u>1966</u>	<u>1970</u> ^{*/}
Copper	644.8	953.5
Zinc	11.5	15.3
Lead	6.5	6.8
Manganese ore	0.8	-
Cobalt	6.0	8.9
Tobacco	6.3	4.4
Maize	2.5	-
Timber	1.0	0.7
Miscellaneous	6.9	n.a.
Total domestic exports	<u>686.5</u>	n.a.
Re-exports	4.3	n.a.
Total exports	<u>690.8</u>	<u>1,000.6</u>

*/ provisional.

Imports
(million \$ U.S.)

	<u>1966</u>	<u>1970</u> ^{*/}
Food	27.7	42.1
Beverages and tobacco	4.2	1.7
Crude materials	6.4	10.7
Mineral fuels	27.4	54.1
Oil and fats	3.7	6.1
Chemicals	26.9	39.9
Manufactures (classified by materials)	77.2	105.7
Machinery and transport equipment	137.1	196.7
Miscellaneous manufactured articles	33.3	43.3
Other miscellaneous	0.5	1.5
Total	<u>344.5</u>	<u>501.8</u>

*/ provisional.

7. Overall economic development strategy and policy:

The major objectives of the Zambian Government during the First National Development Plan were the following:

- diversification of the copper-based economy;
- reduction of inherited disparities between urban and rural areas;
- expansion of education and training with the aim of a maximum Zambianization of jobs;
- expansion of housing, health and social welfare services and extension of the transport and communication network;
- saving or earning foreign exchange through import-substitution and increased exports;
- control by the Government of the main economic sectors (mining, industry, banks) through new regulating laws and the creation of state agencies such as the Mining Development Corporation (MINDECO), the Industrial Development Corporation (INDECO), the Financial Development Corporation (FINDECO). Both INDECO and MINDECO are now subsidiaries of a newly-established Zambia Industrial and Mining Corporation (ZIMCO).

8. Regional co-operation:

The relationship with the East African Community (Kenya, the United Republic of Tanzania, Uganda) presents a major problem; having formally applied for full membership, Zambia remained cautious because of specific disadvantages: her higher production costs (due to higher transport and labour costs) would put her in unfavourable industrial competition.

Links with the United Republic of Tanzania grow stronger each year and will become closer when the United Republic of Tanzania-Zambia railway is completed. The United Republic of Tanzania lately agreed to abolish custom duties on goods in transit to and from Zambia.

Exports to Zaire are increasing through the export of tyres, drilling equipment, coal and consumer goods; rubber is imported from Zaire.

Zambia is a member of the Council of Copper Exporting Countries (CIPEC) with Chile, Peru and Zaire whose main effort is to devise plans to counter the sudden fall in price.

Zambia is also a member of the African Development Bank.

Trade with Selected Countries and Economic Groups
(million \$ U.S.)

	<u>Exports</u>		<u>Total change in %</u>	<u>Imports</u>		<u>Total change in %</u>
	<u>1966</u>	<u>1969</u>		<u>1966</u>	<u>1969</u>	
South Africa	39.3	10.7	-72.8	81.8	97.9	+19.6
Southern Rhodesia	7.0	0.6	-94.3	64.9	30.5	-53.0
East African countries	1.7	3.4	+100.0	3.0	15.6	+406.4
United Kingdom	224.2	277.2	+23.6	76.2	100.0	+31.8
European Economic Community	234.6	354.0	+50.9	28.2	43.1	+52.8
of which:						
Federal Republic of Germany	97.2	134.5	+38.4	11.3	17.0	+50.4
EFTA	38.4	59.5	+54.9	8.0	13.5	+68.7
United States	0.2	12.2	+6,000.0	38.0	42.1	+10.8
Japan	97.3	252.4	+159.4	12.4	31.6	+154.8
USSR and Eastern Europe	14.0	8.8	-37.1	0.6	3.2	+412.3

9. Systems for planning and plan implementation:

The First National Development Plan consisted mainly of a detailed public expenditure programme. Its value remained limited partly because the technical and economic feasibility studies of the proposed projects were inadequate.

The Development Planning Division works in conjunction with the ministries. Since the introduction of the 1968 Mulungushi and the 1969 Matero economic reforms, the Government has been participating increasingly in the public sector either through a complete take-over or through an important partnership. The parastatal sector fully came under mandatory planning due to its nature and functions.

The First National Development Plan (1966-1970) was formulated on the basis of the data which were available and mainly took into account the infrastructural requirements that the country urgently needed at that time.

10. Problems encountered through the previous plan periods:

The main constraints to the development were the following:

- scarcity of skilled and educated manpower in all branches of the economy;
- limitation of transport capacity (both internal and external);
- shortage of construction capacity;
- widening of the rural-urban gap (low productivity of small-scale agriculture, increasing wage rates) bringing a great pressure on the consumption and imports;
- high dependence on the copper industry and on the copper price.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1972-1976

1. General goals and objectives:(i) Planned growth:

	<u>1971</u>	<u>1976</u>	<u>Average annual growth</u>
Manufacturing GDP/capita (\$)	32.2	55.6	11.5%
Industrial GDP/capita (\$)	165.2	214.4	5.3%
Total GDP/capita (\$)	343.0	427.1	4.5%
Population (000)	4,336	4,999	2.9%
Manufacturing GDP (million \$ U.S.)	139.7	277.8	14.7%
Industrial GDP (million \$ U.S.)	716.1	1,071.5	8.4%
Total GDP (million \$ U.S.)*	1,487.3	2,134.9	7.5%
Manufacturing % of total GDP	9.4	13.0	
Industry % of total GDP	48.1	50.2	
Consumption (million \$ U.S.)	861.5	1,126.1	5.0%
Exports (million \$ U.S.)	42.0	86.8	15.6%
Investment (million \$ U.S.)	462.0	630.0	6.4%
Employment (000)	405	505	4.5%

* / at factor cost (constant prices).

(ii) Other objectives:

- to improve income distribution between urban and rural areas;
- to expand and diversify industry and mining to promote further import-substitution;
- to develop tourism more intensively;

- to achieve self-sufficiency in energy and eliminate electricity imports;
- to initiate regional development by channelling more investments in money, material and skills to rural areas which have not so far benefited from past development programmes.

2. Strategy and policy:

(i) General:

The Second National Development Plan will mark a significant stage in the diversification of industrial growth through import-substitution. Import-substitution of consumer goods (textiles, leather, passenger cars, etc.) and of certain intermediate and capital goods (sulphuric acid, fertilizers, explosives, building materials, etc.) require that a critical examination be undertaken of the present capacities of existing enterprises.

Throughout the second plan period the policy will also be to establish small-scale industries in rural areas; industrial goods and services will be made available locally at competitive prices and will serve as additional incentive to the farmers to produce cash crops.

(ii) Manpower and productivity:

Education:

In primary schools, special attention will be given to the upper primary sector concentrating on social studies, environmental science, homecraft and manual craft training.

Secondary education:

The Zambia World Bank Education Project which began at the end of the last plan is scheduled to be completed.

Established academic schools will be strengthened in proportion to the manpower requirement in their respective fields. The School of Agricultural Science will occupy the highest priority in the university's academic development and work in close collaboration with the Natural Resources Development College.

The teacher training capacity will be used to the best advantage before a complete staff survey will allow for revised projections. The expansion planned will only cover the minimum requirements.

Technical education and vocational training will be strengthened.

Planned Development of Education 1972-1976

	Number of classes		Enrolment	
	<u>1972</u>	<u>1976</u>	<u>1972</u>	<u>1976</u>
Primary	19,653	22,942	754,100	880,300
Secondary	1,607	2,053	58,150	74,500
Vocational training and technical education	n.a.	n.a.	4,210	9,310
University	n.a.	n.a.	1,752	3,012

Planned Output (diplomas, certificates and vocational)
in 1976

<u>Occupation</u>	<u>Planned output 1976</u>	<u>Annual requirement (Zambian manpower)</u>
Accountants	94	254
Engineers	518	198
Architects	36	25
Chemists	28	3
Other scientists	42	16
Pharmaceutical chemists	14	7
Health technicians	89	53
Other technicians	30	377
Other technical professions	173	393
Administrators and managers	259	1,910
Book-keepers, cashiers	93	506
Secretaries, stenographers	108	150
Typists	186	400
Total	1,670	4,794

Employment:Employment by Sectors 1971-1976

	December 1971		December 1976	
	Number (000)	%	Number (000)	%
Agriculture	36	8.9	46	9.1
Mining and quarrying	64	15.8	66	13.1
Manufacturing	38	9.4	63	12.5
Construction	78	19.3	108	21.4
Hotels, restaurants, tourism	35	8.6	38	7.5
Transport and communications	23	5.7	28	5.5
All services*	131	32.3	156	30.9
Total	405	100.0	505**	100.0

*/ including approximately 35,000 in the domestic services.

**/ In addition to the organized sector of the economy a good number of wage-paid and self-employed opportunities would arise in the various small shops, enterprises and services.

It is imperative to use labour-intensive methods in order to increase the level of employment. The Government will set up a system whereby wage increases are linked to increases in productivity; it will also be necessary to assure labour a minimum level of wages in all industries; new labour laws on the relationship between labour and management will be introduced (workers' councils with code of discipline). In order to narrow the gap between rural and urban income, it may be necessary to provide incentives, such as a subsidy for rural industries, tax holidays and some concessions in transport.

(iii) Investment and capacity utilization:

The plan envisages a total investment outlay of \$3,025 million.

	1972-1976 (million \$ U.S.)	<u>Distribution</u>
Public sector	2,066	68.3%
Private sector	959	31.7%
Total	3,025	100.0%

Of the total public sector outlay \$1,779 million represent the fixed capital investment, the residual amount will be spent for current expenditures.

Private sector figures include only the fixed capital investment.

The private sector has been defined as inclusive of those parastatal organizations in which the Government holds 51% of the share capital. The introduction of an Industrial Investment Code will be an incentive for the much needed private investment from local and foreign sources.

Of the total fixed capital investment \$341.6 million will be spent for the manufacturing sector; the share of the public sector amounts to 42.2% and of the private sector to 57.7%.

Fixed Capital Investment in the Major Groups of
Manufacturing 1972-1976 at 1969 prices

(million \$ U.S.)

Food	24.8
Beverages	14.1
Tobacco	0.7
Textiles and clothing	18.9
Leather and footwear	13.2
Wood and furniture	4.5
Paper	21.8
Printing	0.6
Chemicals	53.9
Petroleum products	41.8
Rubber products	3.1
Plastic products	2.7
Pottery and glass	10.2
Non-metallic mineral industry	8.8
Basic metal industry	79.8
Metalworking and machinery	39.5
Other manufacturing	3.2
Total manufacturing	341.6

Ministry of Trade and Industry 1972-1976 Investment Programme
Manufacturing Sector
 (000 \$ U.S.)

	<u>Responsible agency</u>	<u>1972</u>	<u>1973-1976</u>	<u>1972-1976</u>
Rural industries	INDECO/RUCOM industries	840	4,361	5,201
Fish buying and processing	INDECO/RUCOM holdings, lake fisheries	280	1,673	1,953
Grain-milling	INDECO/RUCOM holdings/INDECO milling	42	1,926	1,968
Brick-burning	INDECO/Steel-building Division	140	837	977
Saw-milling: Zambezi	INDECO/RUCOM holdings	190	277	467
Saw-milling: New West Bank	INDECO/RUCOM holdings	-	4,115	4,114
Saw-milling: Mderba	INDECO/RUCOM holdings/mining timber	-	490	490
Extension to nitrogen chemicals	INDECO/chemicals	182	9,520	9,702
Extension to Kabwe industrial fabrics	INDECO/Manufacturing Division	-	2,800	2,800
Extension to Kafue textiles	INDECO/Manufacturing Division	-	5,005	5,005
Glass project	INDECO	902	1,768	2,670
Preparatory work on oil refinery	INDECO/chemicals	280	155	435
Kenaf development	INDECO/Ministry of Rural Development	8	-	8
Preparatory work on pulp and paper mill	INDECO	-	1,844	1,844
Total		2,864	34,771	37,635

The existing financing institutions such as the building societies, insurance companies, Agricultural Finance Company and FINDECO will participate in the financing of projects on a larger scale than in the past. Action has been taken for the early establishment of a Development Bank, particularly for financing new industrial projects.

The monetary control exercised by the Bank of Zambia will be supported by complementary fiscal measures.

The resources for the second development plan have been estimated on the basis of an average copper price of \$1,036 per metric ton; at the 1971 rates of taxation this will leave a gap in the budgetary resources.

(iv) Interconnections between growth factors:

Gross domestic investment per GDP amounted to \$0.43 in 1971 and is expected to decline to \$0.41 in 1976.

The investment growth rate for the period 1971-1976 is estimated at 6.4% per annum.

3. Data bases and projections:

4. Planned growth of industrial sector:(i) Planned growth of manufacturing sector:

	<u>Planned Value added</u> (million \$ U.S.)		
	<u>1969</u> ^{*/}	<u>1976</u>	<u>Average annual increase</u>
Food	17.6	30.8	8.3%
Beverages	16.6	21.0	3.4%
Tobacco	4.1	5.6	4.5%
Textiles and clothing	11.1	23.8	11.5%
Leather and footwear	0.6	7.0	2.3%
Wood and furniture	9.5	12.0	3.4%
Paper	0.7	4.9	32.0%
Printing	7.8	8.4	1.1%
Chemicals	9.2	28.4	17.4%
Petroleum products	0.3	15.5	25.9%
Rubber products	4.3	4.9	1.9%
Plastic products	0.4	1.8	24.0%
Pottery and glass	0.4	3.5	35.8%
Non-metallic minerals	14.7	17.5	2.5%
Basic metals	-	39.9	n.a.
Metalworking and machinery	27.3	31.1	9.4%
Other	1.2	1.7	5.1%
Total	<u>125.8</u>	<u>277.8</u>	<u>11.9%</u>

^{*/} Data of 1971 not available in detail.

Planned Fixed Capital Investment 1972-1976

(million \$ U.S.)

Food	24.8
Beverages	14.1
Tobacco	0.7
Textiles and clothing	18.9
Leather and footwear	13.2
Wood and furniture	4.5
Paper	21.8
Printing	0.6
Chemicals	53.9
Petroleum products	41.8
Rubber products	3.1
Plastic products	2.6
Pottery and glass	10.2
Non-metallic minerals	8.8
Basic metals	79.8
Metalworking and machinery	39.5
Other	3.2
Total	341.5

The total capital investment (including working capital) is estimated to amount to about \$560 million. This amount will be split up as follows:

1972 - \$ 75 million
 1973 - \$ 91 million
 1974 - \$112 million
 1975 - \$131 million
 1976 - \$141 million.

70%, i.e. \$392 million, will be financed from private funds, the rest from Government and public sources.

- 467 -

Planned Employment Targets

	<u>1969</u> ^{*/}	<u>1976</u>	<u>Average annual increase</u>
Food	5,600	7,890	5.0%
Beverages	2,541	3,560	4.9%
Tobacco	785	890	1.8%
Textiles and clothing	5,986	9,780	7.2%
Leather and footwear	170	890	25.9%
Wood and furniture	2,865	3,412	2.5%
Paper	113	5,340	24.7%
Printing	1,481	1,780	2.6%
Chemicals	1,839	4,280	12.8%
Petroleum products	34	450	4.1%
Rubber products	976	1,080	1.5%
Plastic products	51	360	27.8%
Pottery and glass	51	540	0.8%
Non-metallic minerals	4,100	4,450	1.2%
Basic metals	-	7,000	n.a.
Metalworking and machinery	7,768	10,300	4.1%
Other	210	450	11.5%
Total	34,570	62,452	3.8%

^{*/} Data of 1971 not available in detail.

Available data of 1971:

Value added	\$139.7 million
Fixed capital investment	\$ 93.9 million
Production	\$369.3 million
Employment	38,200

Growth of Productivity in Manufacturing 1971-1976

	<u>1971</u>	<u>1976</u>	<u>Average annual increase</u>
Number of employees	38,200	62,500	10.4%
Gross output per employee (\$)	9,666	11,406	3.4%
Value added per employee (\$)	3,656	4,449	4.1%
Fixed capital investment (million \$ U.S.)	230	572	20.1%
Gross output per fixed capital (\$)	2.2	1.7	-5.2%
Value added per fixed capital (\$)	0.8	0.7	-2.7%
Fixed capital per employee (\$)	6,025	9,154	8.7%

Labour productivity will increase about 20% during the plan period. This growth rate seems to be the result of a great number of new industries, untrained workers and of a labour-intensive technology chosen for the projects. Gross output and value added per fixed capital will decrease. This is due to the implementation of heavy industries whose capital-output ratios are less favourable than those of almost exclusively light industries.

(ii) Planned growth of electricity:Total Energy Demand in 1,000 Tons Coal Equivalent

<u>Sectors</u>	<u>1971</u>	<u>1976</u>	<u>Average annual increase</u>	<u>Structure of consumption</u>	
				<u>1971</u>	<u>1976</u>
Agriculture	27.3	57.5	16.1%	0.7%	0.8%
Mining	2,516.5	3,680.0	7.9%	61.1%	53.9%
Manufacturing and construction	536.4	954.0	12.2%	13.0%	13.9%
Transport	245.3	256.3	0.9%	6.0%	3.8%
Commerce and services	780.6	1,590.5	15.1%	19.0%	23.3%
Exports	10.0	287.2	23.4%	0.2%	4.3%
Total	4,116.1	6,825.5	10.7%	100.0%	100.0%

Total Energy Supply in 1,000 Tons Coal Equivalent

<u>Type of energy</u>	<u>1971</u>	<u>1976</u>	<u>Average annual increase</u>	<u>Structure of supply</u>	
				<u>1971</u>	<u>1976</u>
Hydroelectric energy	2,341.0	3,927.5	10.9%	56.9%	57.6%
Coal	948.6	1,209.3	4.9%	23.0%	17.7%
Oil	725.5	1,615.5	17.4%	17.6%	23.7%
Coke	94.0	66.2	-7.3%	2.3%	1.0%
Charcoal	7.0	7.0	-	0.2%	-
Total	4,116.1	6,825.5	10.7%	100.0%	100.0%

Growth of Electricity 1971-1976

<u>Installed generating capacity (MW)</u>	<u>1971</u>	<u>1976</u>	<u>Average annual increase</u>
Hydroelectric power			
Kariba (North)	-	600	-
Kafue (Stage I)	300	600	14.9%
Victoria Falls	88	108	4.2%
Mulungushi	20	20	-
Lunsemfwa	18	18	-
Lushiwashi	6	12	14.9%
Kasama/Wbala	1.95	6.75	28.1%
Mansa/Luangwe	2	9	35.1%
Thermal power			
Copperbelt	130	70	-
Lusaka	10	10	-
Maamba	-	110	-
Diesel power			
Zesco (North)	3	7.9	21.3%
Zesco (South)	1	2	14.9%
Gas turbine (Copperbelt)	40	60	8.5%
Total	619.95	1,633.65	21.3%

Capital Expenditure of Electric Energy Projects 1972-1976

<u>Project</u>	<u>Million \$ U.S.</u>
Kariba (North)	74.6
Kafue (Stage I)	16.7
Kafue (Stage II)	78.4
Regional projects	32.2
Control centres	3.5
Municipality schemes	23.8
Rural electrification	6.2
Other projects	33.9
Surveys and research	5.3
Other	3.8
Total	278.4

To assess the hydroelectric power potential of the country, it is planned to carry out a complete survey of all the major rivers during the plan period. Additionally, studies will be elaborated on the development of existing and future transmission lines.

The possibilities for multinational projects at the Luapula and Zambezi rivers will be examined.

(iii) Planned growth of mining:

Capital Expenditure in Mining 1972-1976
(at constant prices 1969)

	<u>1971</u>	<u>1972-1976</u>
	<u>Million \$ U.S.</u>	<u>Million \$ U.S.</u>
Copper projects	128.5	523.4
Lead and zinc projects	4.1	23.7
Coal projects	4.3	6.4
Other mining and quarrying	0.4	2.1
Other projects	0.8	65.2
Promotion of mining	1.4	43.1
Total mining	<u>139.5</u>	<u>663.9</u>
Prospecting, exploration and research of:	7.1	34.6
Copper mines	(3.6)	(17.4)
Lead and zinc mines	(0.1)	(0.4)
Other	(3.4)	(16.8)
Geological Survey Department	1.1	8.7
Total	<u>146.6</u>	<u>707.2</u>

Gross Output of Minerals

<u>Commodity</u>	<u>1971</u>		<u>1976</u>		<u>Average annual increase</u>
	<u>Quantity (000)</u>	<u>Value (000 \$ U.S.)</u>	<u>Quantity (000)</u>	<u>Value (000 \$ U.S.)</u>	
Coal	900.0 tons	11,890	1,030.0 tons	8,390	2.7%
Cadmium	12.0 kg	50	14.0 kg	60	3.1%
Silver	3.4 kg	220	4.0 kg	260	3.1%
Cobalt	2.4 tons	11,750	3.5 tons	17,070	7.8%
Zinc	54.0 tons	14,690	69.0 tons	18,890	5.0%
Lead	27.0 tons	7,410	29.0 tons	7,970	1.4%
Copper	654.3 tons	663,830*	900.0 tons	921,410	6.8%
Other mining and quarrying	n.e.	2,510	n.e.	4,190	10.8%
Total	n.e.	712,350	n.e.	978,240	6.6%

e/ The average copper price assumed amounts to \$1,036 per ton f.o.b.

Additionally, the production of fuel oil and liquefied petroleum gas will increase.

(iv) Priority of sectors:

The plan emphasizes to shift from an overwhelming orientation to food and light industries towards heavy industries, such as petroleum refineries, copper semi-finished mills, etc. The planned growth in the field of agriculture and mining is expected to provide the necessary supply of raw materials.

(v) Infrastructure connected with industry:

Total Investment in the Transport and Communication Sector 1972-1976

	<u>Million \$ U.S.</u>	<u>Distribution of investment</u>	<u>% share of domestic foreign sources</u>	
Road transport	116.1	23.0%	73.7	26.3
Railway transport	249.9	49.5%	11.1	89.0
Air transport	28.7	5.8%	78.9	21.1
Water transport	4.3	0.9%	29.0	71.0
Travelling and forwarding agents	1.4	0.3%	100.0	-
Tasama pipeline	35.0	6.9%	33.2	66.8
Telecommunications and postal services	68.6	13.6%	67.8	32.2
Total	504.0	100.0%	39.0	61.0

Telecommunications and postal services:

These services will expand significantly.

	<u>Number</u>		<u>Average annual increase</u>
	<u>1969</u>	<u>1976</u>	
Post offices	198	302	6.7%
Telephone connections	51,000	85,000	7.6%
Telex subscribers	215	700	18.3%
Public telegraph offices	95	155	7.2%

The postal and telecommunication services' development aims at overcoming the serious lack of postal services in the rural and suburban areas.

(vi) Relationships with non-industry sectors of the economy:Production of and Demand for Agriculture 1969-1976

<u>Commodity</u>	<u>Unit</u>	<u>Estimated domestic demand</u>		<u>Marketed production</u>		<u>Projected production</u>
		<u>1969</u>	<u>1976</u>	<u>1969</u>	<u>1970</u>	<u>1976</u>
Maize	Tons	301,000	550,000	253,140	124,370	550,000 - 600,000
Rice	Tons	4,350	8,000	270	300	2,400 - 2,800
Sorghum (malted)	Tons	3,200	n.a.	1,180	530	1,800 - 2,300
Oil seeds:						
Ground-nuts	Tons	n.a.	n.a.	7,820	3,270	10,000 - 12,000
Vegetable oils	Tons	9,000	15,500	90	30	6,000 - 8,000
Raw sugar	Tons	46,700	95,500	30,400	40,100	73,000 - 77,000
Fruits	Tons	8,600	13,000	3,100	4,500	8,000 - 10,000
Vegetables	Tons	n.a.	n.a.	17,000	20,000	35,000 - 40,000
Tea	Tons	620	950	-	-	40 - 50
Coffee	Tons	70	110	5	10	100 - 120
Beef	Tons	19,000	30,800	8,800	11,800	15,000 - 17,000
Pork and bacon	Tons	2,360	3,500	930	1,150	3,100 - 3,500
Poultry						
Dressed	Tons	5,170	9,000	5,170	5,440	9,000 - 10,000
Eggs	000 pieces	93,000	145,000	93,000	99,000	145,000 - 165,000
Milk	000 litres	27,600	47,800	16,200	15,300	30,000 - 35,000
Tobacco						
Virginia	Tons	1,000	1,630	5,020	4,790	9,000 - 13,000
Burley	Tons	n.a.	n.a.	240	250	600 - 900
Seed cotton	Tons	n.a.	12,000	6,920	5,610	11,000 - 12,000
Kenaf	Tons	n.a.	5,000	-	50	2,000 - 3,000

The overall economic target of a 4 to 5% average annual growth in the per capita income of the rural areas might be achieved by a concentration of efforts in a few selected areas and along the railway line. The development of production priorities in agriculture is a central feature of the Second National Development Plan.

Increased production is also aimed at in the field of fisheries. It is planned to achieve a harvest of 55,000 tons of fish in 1976.

5. Planned industrial projects:

The criteria on project selection was import-substitution.

Meat processing:

The processing capacities for fresh and processed meat will be increased. New plants include abattoirs at Lusaka and Mongu, pork processing at Chipata and poultry processing facilities at Lusaka and in the area of the Copperbelt. Some existing plants will be modernized and expanded.

Dairy products:

A factory will be built to produce durable milk and other milk products. The possibility of establishing further manufacturing capacities will be explored.

Bakery products:

The manufacture of biscuits is planned and smaller bakeries will be established.

Textiles:

The capacity of the Kafue factory will be expanded from the present annual production of 12 million metres of cotton fabric to 25 million metres of cotton/polyester and rayon fabrics. The Kabwe factory will increase the production from

5 million grain bags and 0.9 million metres of hessian cloth to 9 million bags and 2.7 million metres of hessian cloth.

Wood processing:

The establishment of two saw mills is planned situated in the Zambezi valley and in the North-western province to produce mining timber, railway sleepers and flooring material. A further complex will produce sawn timber and particle board based on pine and eucalyptus plantations in the Copperbelt; later a pulp and paper mill will be added to this complex.

Oil refinery:

The plant, situated at Nalola, will produce premium and regular motor petrol, diesel oil, fuel oil, liquefied gas and bitumen. The annual capacity will amount to 1.1 million tons of refined products.

Passenger cars:

The passenger car assembly plant in Livingstone will start production during the plan period at an output of initially 5,000 cars per year.

Refrigerators and other household electric appliances:

The possibilities of producing refrigerators and other household electric appliances such as light bulbs and fluorescent tubes will be envisaged.

Sulphuric acid:

The sulphuric acid production will be expanded and the production of copper sulphate will be started.

Fertilisers:

The production capacity of the nitrogenous chemicals at Kafue will be increased and new plants will be added to this complex to produce heavy chemicals.

Explosives:

The explosives factory at Kafiranda will be expanded to meet the requirements of the mining sector.

Containers:

A factory will be built at Kaciri Mposhi to produce annually 20,000 tons of glass containers and another one to produce 50 million of plastic containers.

Bus bodies:

An existing metalworking factory will be equipped to produce 100 bus bodies per annum.

Brewery:

A new brewery with an annual output of 400,000 hectolitres is planned.

Small-scale industrial projects in rural areas:

It is planned to establish 4 new grain mills and to expand the 6 existing ones. Three feed mixing units, twenty bakeries and twenty to thirty workshop complexes are planned also.

Eight new units will produce together 160 million bricks.

It is emphasized to establish manufacturing units for handtools, mechanized tools, screws and bolts, prefabricated building elements, etc.

6. Organizational and institutional changes required for industrial plan implementation:

In order to draft the Second National Development Plan it was necessary to partly reorganize the national planning machinery. The Development Planning Division as the Central Planning Office in Government administration will prepare at the overall national level annual reviews in consultation with the ministries concerned. The first annual review will be undertaken in 1973 to evaluate the results of economic development of the previous year. This procedure is supposed to enable the Government to take corrective actions with

respect to projects and programmes falling behind the planned targets. The Development Planning Division, again in consultation with ministries and provinces, will also assist in the preparation of provincial annual reviews.

At the level of executive ministries, planning units will be established and existing ones further strengthened in order to be responsible for sectoral planning and plan implementation in their respective ministries. These units will develop ideas and policies to facilitate medium and long-term planning in consultation with the Development Planning Division.

With regard to planning at the regional level, regional planning units and provincial planning units will be set up. The Development Planning Division through its regional planning units will give all necessary assistance to provinces in the formulation of plans and policies concerning regional and urban development.

Further a Central Manpower Assessment and Planning Unit will be set up in the Development Planning Division. In co-operation with the Labour Department, efforts will be made to bring about an efficient and integrated employment service through:

- the reorganization of employment exchange;
- providing employment market information on a periodic basis;
- better vocational training, career guidance and counselling service.

The expansion of the economy during the plan will also require a more efficient operation of the credit system. Action has already been taken to establish a Development Bank. This bank will finance new industrial projects of high priority (see also Part I, Chapter 9).

7. Problem areas particular to the industrial sector:

The main problems of the Second National Development Plan will remain more or less the same as in the previous plan:

- shortage of adequately trained manpower in all sectors of the economy;
- high dependence on the copper industry and on the copper price;
- insufficiently developed transport sector;
- under and unemployed manpower in agriculture not being absorbed by the growth of the manufacturing sector.

SUMMARY OF THE INDUSTRIAL DEVELOPMENT

PLAN OF POLAND: 1971 - 1975

I. General background information

II. Summary of the industrial development plan

I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Poland:

<u>Area:</u>		312,677 km ²
<u>Major cities:</u>	(1970)	
		<u>Population</u>
	Warsaw	1,308,000
	Lódź	762,000
	Craców	583,000
	Wrocław	523,000
	Posnań	469,000
	Gdańsk	364,000
<u>Other data:</u>	(1970)	
	Meat consumption/capita	53 kg
	Average monthly wage	8104.—
<u>Exchange rates:</u>	(1970)	
	<u>Unit</u>	<u>Zloty equivalent</u>
	US dollar	24.00
	Pound sterling	57.46
	Swiss franc	5.58
	French franc	4.34
	German mark	6.48
	Italian lira (100)	3.86

2. Population:

Total population in 1970 amounted to 32.6 million. The natural increase of the population (ratio per thousand) was 8.5 in 1970. Total active population in 1970 was 15,456,000 of which:

- socialized sector of the economy 9,677,000, i.e. 63% of total working population;
- individual agriculture 4,676,000, i.e. 30%.

The country achieved full employment since the 1950s. The share of the urban population amounted to 52%.

Sectoral Distribution of Labour in 1970

Agriculture	29.0%
Forestry	7.5%
Industry	28.0%
Construction	6.4%
Services and other	29.1%
Total	<u>100.0%</u>

The general education level of the population is comparatively high.

- Adult literacy rate 99%;
- School enrolment rate above 90%.

The percentage of people with education over primary level (8 forms) over 20 years of age is 34%. Primary school attendance is compulsory. The rate of people continuing education after completing primary school amounts to 93%.

Total number of students in 1970 was 331,000.

3. GDP*

	<u>1965</u>	<u>1970</u>	<u>Average annual growth</u>
Manufacturing GNP/capita (\$)	n.a.	n.a.	n.a.
Industrial GNP/capita (\$)	n.a.	n.a.	n.a.
Total GNP/capita (\$)	n.a.	1,200	n.a.
Population (000)	n.a.	32,600	n.a.
Manufacturing GNP (million \$ U.S.)	-	n.a.	-
Industrial GNP (million \$ U.S.)	n.a.	43,971	8.7%
Total GNP (million \$ U.S.)	n.a.	n.a.	n.a.
Manufacturing % of total GNP	n.a.	n.a.	
Industry % of total GNP	n.a.	n.a.	

* / GDP not available.

Structure of Industrial GNP in 1970

Coal industry	5.2%
Fuel industry	2.7%
Power industry	2.6%
Iron and steel industry	7.9%
Non-ferrous metal industry	2.9%
Metalworking industry	25.9%
Chemical industry	9.0%
Building materials industry	3.4%
Glass industry	0.6%
China and porcelain industry	0.2%
Wood industry	3.7%
Paper industry	1.4%
Textile industry	8.1%
Clothing industry	3.3%
Leather industry	2.2%
Food industry	17.8%
Printing industry	0.4%
Other industries	2.7%
Total industry	<u>100.0%</u>

4. Macro-economic indicators:Prices:

Consumer price index	1970:197 (1950=100)
of which food-stuffs	1970:249 (1950=100)

Price increases are rather low as compared to the European standard.

Total Exports and Imports in 1970
(million \$ U.S.)

Exports	3,548
Imports	-3,608
Balance	- 60

Structure

	<u>Exports</u>	<u>Imports</u>
Capital goods and industrial installations	38.7%	36.7%
Fuel, raw materials and semi-manufactures	32.4%	47.6%
Agricultural products	13.3%	9.6%
Consumption goods of industrial origin	15.5%	5.2%
Total	100.0%	100.0%

The main partners in foreign trade are socialist, mainly CMEA countries which participate in 66% of the total turnover, the share of non-socialist developed countries is 27%, the share of developing countries 7%. The latter is assessed as insufficient and is to be increased in the future.

The ratio of exports to the national income is 23%.

Budget
(million \$ U.S.)

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Revenue	13,590	13,590	13,715	14,876	16,207
Expenditure	13,240	13,580	13,570	14,600	15,760

Main items of the 1970 revenue were the sale and profit tax from state enterprises at \$12,817 million. Main items of the 1970 expenditures: state enterprises \$7,592 million, social security \$691 million and education \$2,929 million.

5. Industrial products and technology - main manufacturing industries:

The most developed manufacturing industries are iron and steel, engineering, chemical, building material, textile and food industries.

In 1970, the production of crude steel amounted to 11,795,000 tons. There were 24 blast furnaces and 90 open-hearth furnaces. Iron-ore is mostly imported from the Union of Soviet Socialist Republics. The per capita steel consumption in 1970 was 359 kg. The biggest steel factory in the country is situated near Cracow with a capacity over 4.5 million tons.

Engineering industries are the main branch of the country employing 1.3 million people. The most developed fields of production are shipbuilding, railway, stock industry, construction machines, mining machinery, turbines, tractors, trucks, food machinery, complete factories. Relatively less developed are still such branches as electronics, car industry, textile industry installations. Many enterprises co-operate successfully with the corresponding industries in CMEA countries and West-European countries.

In 1970 the production of ships amounted to 434,000 BRT, 351 locomotives, 64,000 cars and 39,000 tractors.

The chemical industry is more developed in such fields as sulphuric acid, fertilizers and pharmaceuticals. Production of sulphuric acid in 1970 amounted to 1,901,000 tons, nitrogen fertilizers to 1,030,000 tons in pure content, and plastics to 222,000 tons. The present output does not meet the demand in such fields as plastics and tyres. The share of petrochemicals is assessed as insufficient.

In the building materials sector the production of 12 million tons of cement in 1970 was of main importance.

The textile industry is only developed in the field of traditional wool and cotton products. The installations being old are under replacement. The most important food products are ham, vodka, potato products, butter and eggs.

6. Industry - related resources and sectors:

Main crops and livestock:

The main agricultural products are potatoes, sugar-beets, flax, milk and pork.

To speed up the development of meat production 2 million tons of grain were imported per year. The cotton and wool supply is fully based on imports.

Minerals and mining:

There are relatively rich deposits of copper, zinc, salt and sulphur. In 1970 the annual production of copper amounted to 72,000 tons, of zinc to 209,000 tons, and of sulphur to 1.9 million tons. A relatively large percentage of the total zinc production is exported.

Fuels and power:

The main source of power supply is hard and brown coal (about 95%). The coal deposits are rich and favourably located. In 1970, 140 million tons of hard coal and 33 million tons of brown coal were extracted.

The deposits of natural gas are insufficient, and there is only very little crude oil available. In 1970, 7.5 million tons of crude oil were refined, mainly supplied by the Union of Soviet Socialist Republics.

7. Overall economic development strategy and policy:

The main characteristics of the country's economic development strategy between 1959-1970 were:

- the increase in investment outlays for sectors with especially high capital-output ratios, i.e. extractive industries, building materials and agriculture;
- the increase of the investment ratio, rate of employment and import production intensity to keep the high rate of economic growth of the past.

A major part (almost 80%) of investment outlays in industry was directed in the past ten years to the heavy and mining industries due to a high demand for capital goods and fast expansion in exports of some raw materials. Recently priority is given to consumer goods industries and housing.

A high share of investment was also spent for new factories and branches of industry partially at the expense of modernising the existing ones. This policy was accompanied by an intensive exploitation of old installations and factories. Recently the process of removing old installations is gradually being accelerated, in particular in textile, building materials, glass and non-ferrous metals industries. Some parts of industrial investment are based on imported installations and foreign credits.

8. Regional co-operation:

The country is strongly connected with the economy of other CMEA countries through agreements on 5-year plans, specialization or co-ordination and recently by common enterprises and investment.

9. Systems for planning and plan implementation:

10. Problems encountered through the previous plan period:

The main factors hampering the economic growth can be characterized as follows:

- at the initial stage, limited investment possibilities due to insufficient production of capital goods, first of all machines and industrial installations;
- scarcity of some most important raw materials, such as crude oil, iron-ore, natural gas;
- shortage of foreign exchange resulting from a low level of exports;
- lack of more up to date products and technologies competitive in world markets;
- high demand for agricultural products at a relatively low rate of growth of the agricultural production.

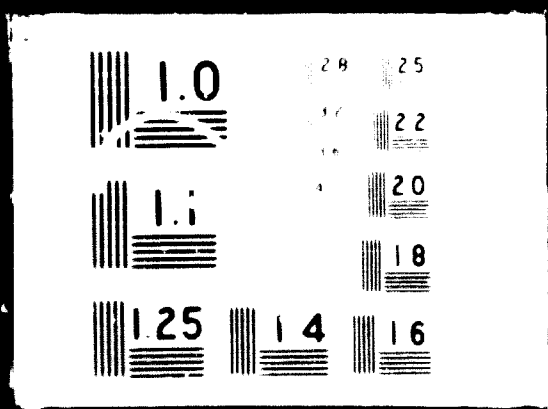


22.7.74

10 OF 10

DO

4997



II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1971-1975

1. General goals and objectives:(i) Planned growth:

	<u>1970</u>	<u>1975</u>	<u>Average annual growth</u>
Manufacturing GDP/capita (\$)	n.a.	n.a.	n.a.
Industrial GDP/capita (\$)	n.a.	n.a.	n.a.
Total GDP/capita (\$)	n.a.	1,600	n.a.
Population (000)	32,600	n.a.	n.a.
Manufacturing GDP (million \$ U.S.)	n.a.	n.a.	n.a.
Industrial GDP (million \$ U.S.)	n.a.	n.a.	n.a.
Total GDP (million \$ U.S.)	n.a.	n.a.	8.5%
Manufacturing % of total GDP	n.a.	n.a.	
Industry % of total GDP	n.a.	n.a.	
Domestic consumption (million \$ U.S.)	n.a.	n.a.	n.a.
Exports (million \$ U.S.)	n.a.	n.a.	9.2%
Investment (million \$ U.S.)	n.a.	n.a.	7.9%
Employment (000)	n.a.	n.a.	n.a.

(ii) Other objectives:

In 1975 the national income per capita will amount to \$1,500-1,600.

The total level of investment outlays during the five years will amount to over \$60,000 million.

Research and development activities will be promoted, concentrated on a limited number of areas and more closely integrated with the corresponding industries.

There will be an increase of 46% in outlays for science as well as research and development. The research and development outlays ratio to the national income will grow from 2% in 1970 to 2.4% in 1975.

Foreign credit facilities will be increased to become an important factor in the development of the raw material basis, the modernization of the existing industrial structure, and a fuller utilization of labour resources.

An acceleration in the annual rate of growth of the national income from 5.9% in 1966-1970 to 7% in 1971-1975 is envisaged.

Faster development of housing, services and small-family cars will be promoted.

More attention will be directed to the problems of an international division of labour (in terms of foreign trade, international industrial co-operation, etc.). Special attention will be given to the strengthening of all forms of co-operation among the socialist countries and increase in the economic co-operation with other countries as well.

The foreign trade turnover will increase by 57% to more than \$11,000 million in 1975. The growth rate of foreign trade will exceed the rate of growth of the industrial production and the national income.

The total demand for imported investment goods will amount to over \$10,000 million, out of which nearly \$2,500-3,000 million are expected to come from non-socialist countries, the rest from CMEA countries.

The rate of growth of imports of capital goods will exceed the rate of growth of the total trade.

The same applies to manufactured consumer goods. The imports of consumer goods and food-stuffs for the home market will increase by \$400 million in 1975.

The structural changes of exports will be marked by the increase of the share of investment goods from 41% of the total exports in 1970 to 46.5% in 1975. This reflects the increasing possibilities of producing numerous kinds of machinery and installations at a high standard of technology and quality.

2. Strategy and Objectives

(1) General:

The main features of the country's economic development policy are:

- acceleration of the growth of the volume of the population and private consumption;
- optimal utilization of labour resources;
- modernization of the structure of industry through the development of new, more up-to-date, industries and the technical reconstruction of existing ones;
- transformation of the economy into one more open to the world market through much faster development of foreign trade and international co-operation.

The acceleration of the rate of growth in private consumption is one of the leading goals for the 1971-1975 five-year plan.

The plan envisages a growth of average real wages per earner by 18% compared to about 10% during 1966-1970. The aim is to reduce the gap between the total growth of the national income and the growth of the real wage per earner.

In connection with the policy of structural changes in industry the following three main targets have been established:

- to ensure through structural changes the highest possible level of economic efficiency, that means lowering the raw material, capital and labour-intensive ratio; from this point of view capital saving and raw material saving activities will be promoted;
- to ensure the full utilization of structural changes as a factor of acceleration of economic development of the country; this will be reflected in shifting the resources towards those branches of industry which are marked by a high rate of growth in domestic and foreign demand; the same idea is connected with speeding up the foreign trade specialisation programme with respect to particular branches of industry;
- to prepare the country's industry to meet the needs of the future trends in the technical progress.

Foreign trade is expected to play a more important role than before.

Imports are considered a very important factor in the technological reconstruction and modernization of many branches. Imports should also contribute to a great extent to the increase in the supplies of consumer goods on the home market.

The main change in foreign trade will be the acceleration of imports which is connected first of all with the increasing share in it of industrial equipment.

(11) Manpower and productivity:

Employment in industry will be increased in 1971-1975 by 660,000 persons, i.e. 16.3% in relation to 1970. The following factors should contribute to a 30% increase in labour productivity:

- better organization of production with a fuller utilization of scientific and technological development;
- an increase of the multiple shift system resulting in an average coefficient of shift-work equal to 1.7-1.8 in 1975 compared to 1.5 in 1970;
- an improvement in quality of labour resulting from an increasing share of workers with professional education and training (up to 72%).

It is planned to provide a wide range of opportunities to evoke the initiative of people employed at all levels of management.

Attention should be drawn to the quality and efficiency of organizational schemes and managerial techniques.

There is a widespread understanding of a necessity to increase the scope of professional training (including the so-called "refresher" courses for all the groups of executives and professional staff members).

In the 1971-1975 period 3.5 million young people will enter the labour market. The majority represents a rather good level of general and vocational training and education. It creates favourable conditions in respect to labour resources for the economic development, although at the same time it makes necessary the high level of investment outlays and gives priorities in investment policy to labour-intensive branches.

(iii) Investment and capacity utilization:

In the period 1971-1975 investment outlays will be equal to \$60,320 million at 1971 prices. This represents an increase of 46% in comparison to the corresponding volume of outlays in the preceding five-year period.

\$26,240 million will be spent for the development of industry which is 60% more than in the years 1966-1970. About 23% of this sum will be invested in consumer goods industries only which means that the volume of investment in these branches will be twice higher than in the preceding five years. The rate of growth of investment in this sector will be significantly higher than the average for the industry as a whole.

A branch-wise distribution of industrial investment and corresponding indices of growth are given in the following table:

	Growth index ^{*/} <u>1971-1975</u>	Investment share in % <u>1971-1975</u>
Coal industry	123	7.7
Power industry	158	10.1
Metallurgical industries	175	12.7
Metal processing industries	175	20.8
Chemical industries (oil refineries excluded)	125	12.4
Construction materials, glass and chinaware industries	192	8.6
Wood and paper industries	163	3.9
Light industries	186	6.8
Food industries	154	8.2
Total industry	<u>160</u>	<u>100.0</u>

*/ 1966-1970 = 100

Industrial investment outlays in 1971-1975 will be concentrated considerably on the modernization and enlargement of existing plants, including the replacement of equipment and installations, whereas building of new factories will have second order of priority. Consequently it is assumed that the share of new constructions will decrease from 58.3% in 1966-1970 to 5.9% in 1971-1975, whereas the outlays on machines and equipment will increase from 36.1% to 38% of the total industrial investments.

(iv) Interconnections between growth factors:

The incremental capital-output ratio related to the net output value in industry will be 2.5 on the average. This average coefficient will be slightly higher (approximately 2%) than in the preceding five-year period. This increase is mainly due to a rising tendency of capital-output ratios in such industries as fuel, power, light, mineral wood and paper branches with a decrease of these coefficients in the chemical and food industries.

The ratio of capital to labour is envisaged to rise during the plan period.

Investment outlays per one new person employed will amount to \$39,728 in 1971-1975 which is 48% higher than the corresponding figure in 1966-1970. This increase will appear in such branches as light, chemical, wood and paper industries.

A more detailed specification of these figures for the main industrial branches is given below:

Investment Cost per One New Employee

(000 \$ U.S.)

	<u>1966-1970</u>	<u>1971-1975</u>
Total industry	27	40
Fuel and power industry	128	115
Basic metal industry	64	90
Metal processing industry	11	17
Chemical industry	51	101
Mineral industry	34	56
Wood and paper industry	20	35
Light industry	11	21
Food industry	32	44

3. Data bases and projections:

4. Planned growth of industrial sector:

(i) Planned growth of manufacturing sector:

Food industries will introduce a better utilization of agricultural raw materials by means of modern processing technologies. Emphasis will be placed on an increase of products containing animal protein.

A significant rise in the output of sugar will amount to 14.8 million tons in 1975; this is 32% more than in 1970-1971.

The output of chocolate and related products will be doubled.

In 1975 the output of synthetic fibres will reach 224,000 tons (62% more than in 1970), mainly polyamid and polyester fibres. The output of plastics will increase by 94% reaching 431,000 tons in 1975 within which a number of new types of plastics will be produced, e.g. polypropylene. The output of fertilizers in pure chemical content will amount to 1,526,000 tons for the nitrogenous branch (a 48% increase) and to 982,000 tons for the phosphorus branch (a 64% increase). Within the pesticides branch new products replacing DDT will be introduced. The output of pharmaceuticals will increase by 77%, and a number of new products will be introduced.

Planned increases in the construction material industries are the following:

- cement output in 1975 18 million tons, i.e. an increase of 48%;
- wall construction units 10,700 million, i.e. an increase of 42%;

- asbestos cement boards 56 million square metres, i.e. an increase of 53%;
- window glass 60 million square metres, i.e. an increase of 24%.

Several new big cement plants with dry processes with an annual capacity of 2 million tons will be constructed. In 1975 the demand for cement will be mainly supplied by home output.

The output of timber will grow more moderately, but it will continue to be an important export item.

Within the paper industry there will be an acceleration of growth, but a shortage in supply will be still prevailing.

The output of cotton and cotton-like textiles will rise to 980 million metres (an increase of 11%), of wool and wool-like textiles to 117 million metres (an increase of 18%) and of shoes (excluding rubber) to 141 million pairs (an increase of 31%). The demand of cotton yarn will be partly covered by imports. A much quicker expansion will take place in the branches producing knitwear (more than a 120% increase), hosiery (43%), knitting based on synthetic yarns (three fold increase).

Metal processing industries will have the highest rate of growth, i.e. over a 75% rise of output within the five years. Priority is given to such branches as road transport equipment, consumer durables, agricultural machines, electronic and electrical appliances, ships. The targets for road transport equipment for 1975 include 154,000 motorcars, 62,000 lorries, 13,000 buses (an output of modern big size buses will be started). The output of agricultural machines will increase by 86% enabling the substitution of labour force leaving agriculture. Within the electronic branch the output of computers will be six times higher than in 1970, and an output of integrated circuits will be started.

Shipyards will produce 3,640,000 DWT of merchant ships in 1971-1975 out of which 60% will be exported. A first big ship over 100,000 DWT will be constructed. Emphasis will be placed also on the rise in the output of household appliances and durables, as well as related spare parts. It is planned to introduce a number of new products such as colour television sets, air-conditioning appliances, new types of tape recorders, refrigerators, etc.

Exports will be promoted, especially of products such as ships, general and road construction machines, industrial plants for production of sulphuric acid, sugar, etc., railroad and road transport equipment, computers and peripheral appliances, etc. The share of these products within the total volume of exports in metal processing industries should increase by 9%.

The output of steel will reach 14.7 million tons in 1975 (25% more than in 1970). The processing of steel and especially the output of high-grade steel products will be emphasized.

(ii) Planned growth of electricity:

Electric power capacities will be increased by 6,100 MW. The output of power will rise by 49% and will amount to 96,000 million kwh in 1975.

(iii) Planned growth of mining:

The plan for 1971-1975 sets significant development targets for the fuel industries. Considering rich deposits of coal and no deposits of crude oil the fuel base of the Polish economy still consists predominantly of solid fuel, mostly hard coal.

The growing internal demand, as well as export orders will lead to a significant increase of coal extraction (from 140 million tons in 1970 to 167 million tons in 1975).

The highest growth of output is foreseen for electrolytic copper (up to 182,000 tons, i.e. an increase of 152%), while the output of zinc will rise to 234,000 tons, i.e. a 12% increase and of lead to 67,000 tons (23%). A new big copper mine is under construction.

(iv) Priority of sectors:

The plan envisages priorities in the following sectors:

- metal processing industry;
- chemical and petrochemical industry;
- construction material industry.

In the field of the metal processing industry special emphasis will be placed on the development of electronics and electrical appliances, ships, road transport equipment, agricultural machines and durables and consumer goods.

In the chemical industry especially the production of plastics and synthetic fibres will be promoted.

The construction material production will be emphasized to promote housing construction.

(v) Infrastructure connected with industry:

11.5% of the total investment outlay will be allocated to the transport sector during the plan period.

(vi) Relationships with non-industry sectors of the economy:

Agriculture:

In the plan period 14.2% of the total investment will be allocated to this sector.

The supply of meat and fats from the meat industry will increase to a level of over 1.7 million tons, i.e. by 30%. The supply of poultry meat will be increased by 42% and of fish and fish products by 27%. The output of milk and milk products will be increased from 1970-1975 as follows:

- | | |
|----------|-----|
| - milk | 28% |
| - cheese | 66% |
| - butter | 32% |

5. Planned industrial projects:

The construction of a new steel plant "Katowice" has been started with blast furnaces of 3,200 cubic metres and an annual capacity of 4.5 million tons. It will replace pig-iron and raw steel produced until now in a number of old steel works in Upper Silesia.

A new oil refinery will be constructed in 1971-1975 in Gdańsk at the Baltic Sea which will be supplied with oil imported via sea transport.

A new car factory is being constructed in Bielsko, southern part of Silesia, to start the production of a new popular small family car (Fiat 126 P).

6. Organizational and institutional changes required for industrial plan implementation:

Quantitative targets and policy increases set for the social and economic development within the plan for 1971-1975 are very strongly interrelated with a number of qualitative policy directives concerning the system of planning and management, as well as some important aspects of social relations. These qualitative measures can be considered as important conditions for the implementation of the plan.

There are the following three main interlinked fields in which quantitative measures are introduced:

- The first one pertains to institutional principles regulating the rights and obligations of particular managerial levels, their functions within a system of planning and management, the scope and nature of instruments devised to influence managerial decisions.
- The second field concerns the human factor in the functioning of the society and economy. It includes a wide range of aspects such as education, professional skill and experience, motivation leading to higher productivity and efficiency, initiative to look for progressive innovations, an active approach to solve internal problems of particular enterprises or communities.

- The third field deals with the improvements of planning and management techniques especially those related to the collection and processing of information, development of adequate techniques of appraising, forecasting, programming and controlling at the respective levels of management.

From the point of view of the planning and management system there is a basic problem of primordial importance, i.e. to increase an effective influence of two parallel "motive forces":

- central planning;
- most efficient utilization of resources, including a propensity to introduce innovations and to rationalize all the activities within enterprises.

The point is to make these forces strengthen one another to limit some contradicting tendencies resulting from a one-sided approach.

Within this framework a number of measures have been taken in order to strengthen the central planning in such basic functions as determining a strategy of socio-economic development (in relation to comprehensive, economy-wide problems, as well as to some most important sectoral and regional development issues), integrating social and economic premises for choice and policy setting, controlling social and economic processes by means of a wider range of instruments (including fully these of indirect inducement by financial measures combined with corresponding incentives).

There is also a wider recognition of the fact that planning at different levels of management should have its own specific nature, depending on the scope and nature of corresponding managerial functions. Moreover, every level of management should use planning in a comprehensive manner, i.e. to take into account all the relevant interrelated processes within its sphere of control. This means a shift of accent from such approaches which considered a multilevel planning and management system in terms of aggregation and disaggregation of figures measuring such processes and economic categories as output, consumption, investment, exports, imports, employment, etc.

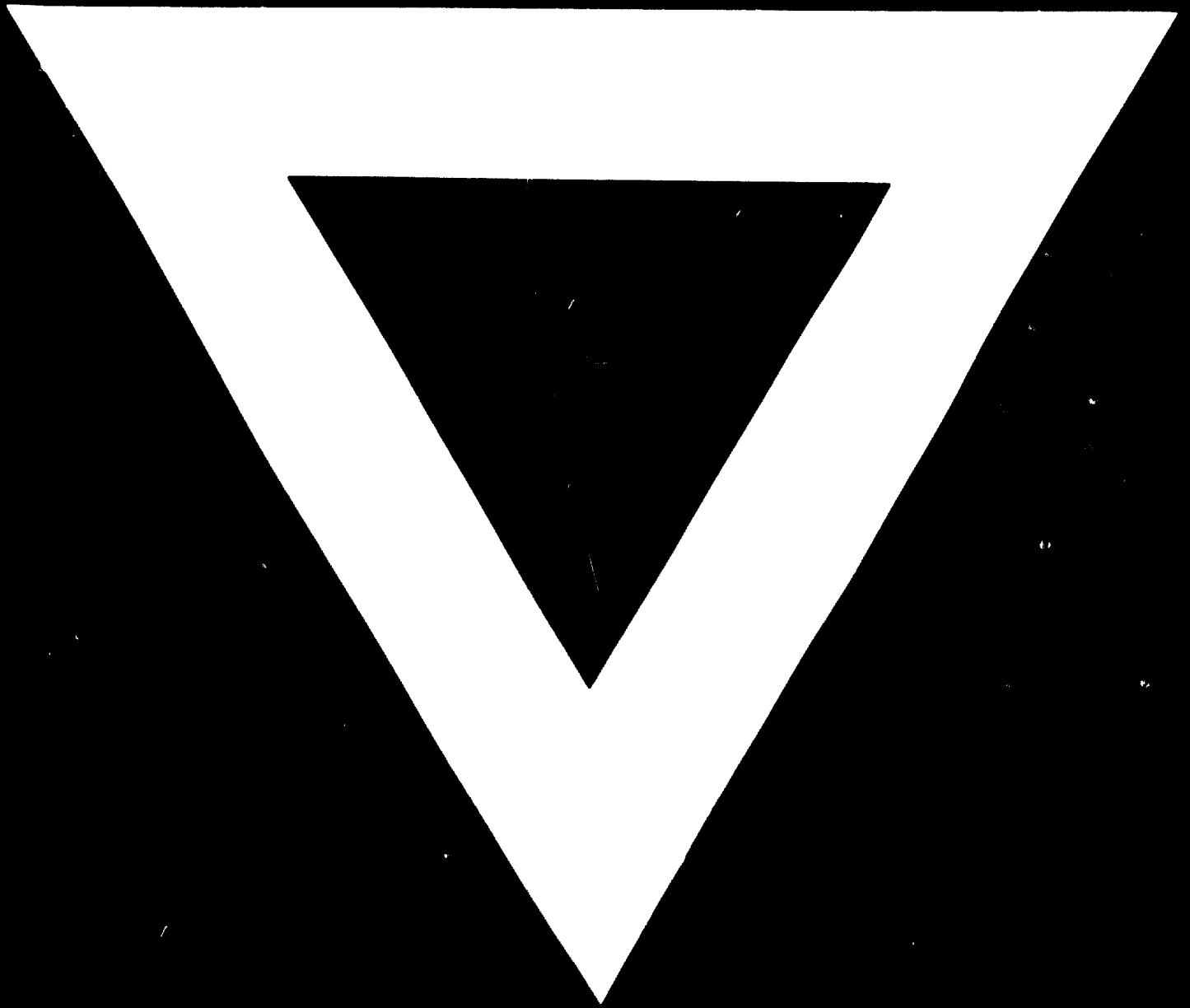
Additionally some measures have been taken to shape the planning system in a way ensuring an adequate position of plans related to a time-horizon of various length. The main point is to use these plans as instruments to control dynamic processes of social and economic change to set these processes in a path leading to desired strategic perspectives with a necessary amount of flexibility.

All these steps aiming at increasing the efficiency of central planning are also essential to create better conditions for a rational management at the enterprise level, strengthened however by other measures related to such questions as price formation, wage policy, principles of financing, performance appraisal, principles regulating transactions among enterprises in industry, construction and trade. Such measures are introduced in two parallel ways, gradual economy-wide changes of conditions for the respective fields of operations and comprehensive changes for a successively increasing number of big industrial and trading organizations.

7. Problem areas particular to the industrial sector:

The problem areas mentioned in Part I also refer to this plan period, since it was not possible to solve them completely in the previous period.





22.7.74