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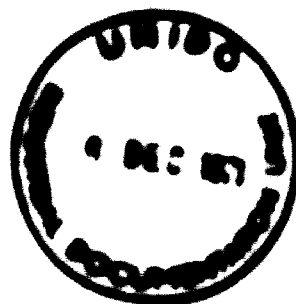
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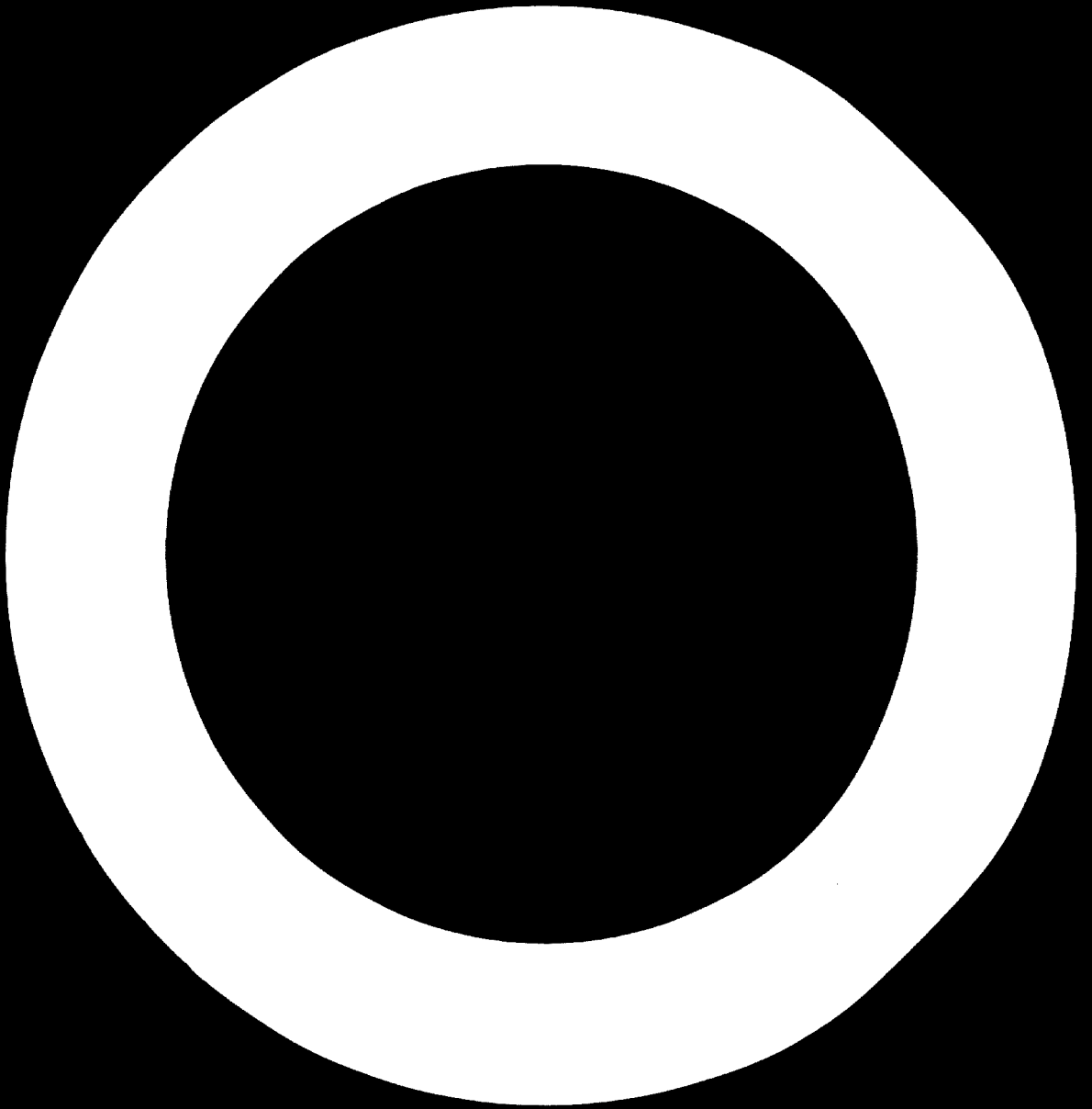
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**SUMMARIES  
OF  
INDUSTRIAL  
DEVELOPMENT  
PLANS**

**VOLUME II**

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION, VIENNA

**SUMMARIES OF  
INDUSTRIAL DEVELOPMENT  
PLANS**

**VOLUME II**



**UNITED NATIONS**

**New York, 1971**

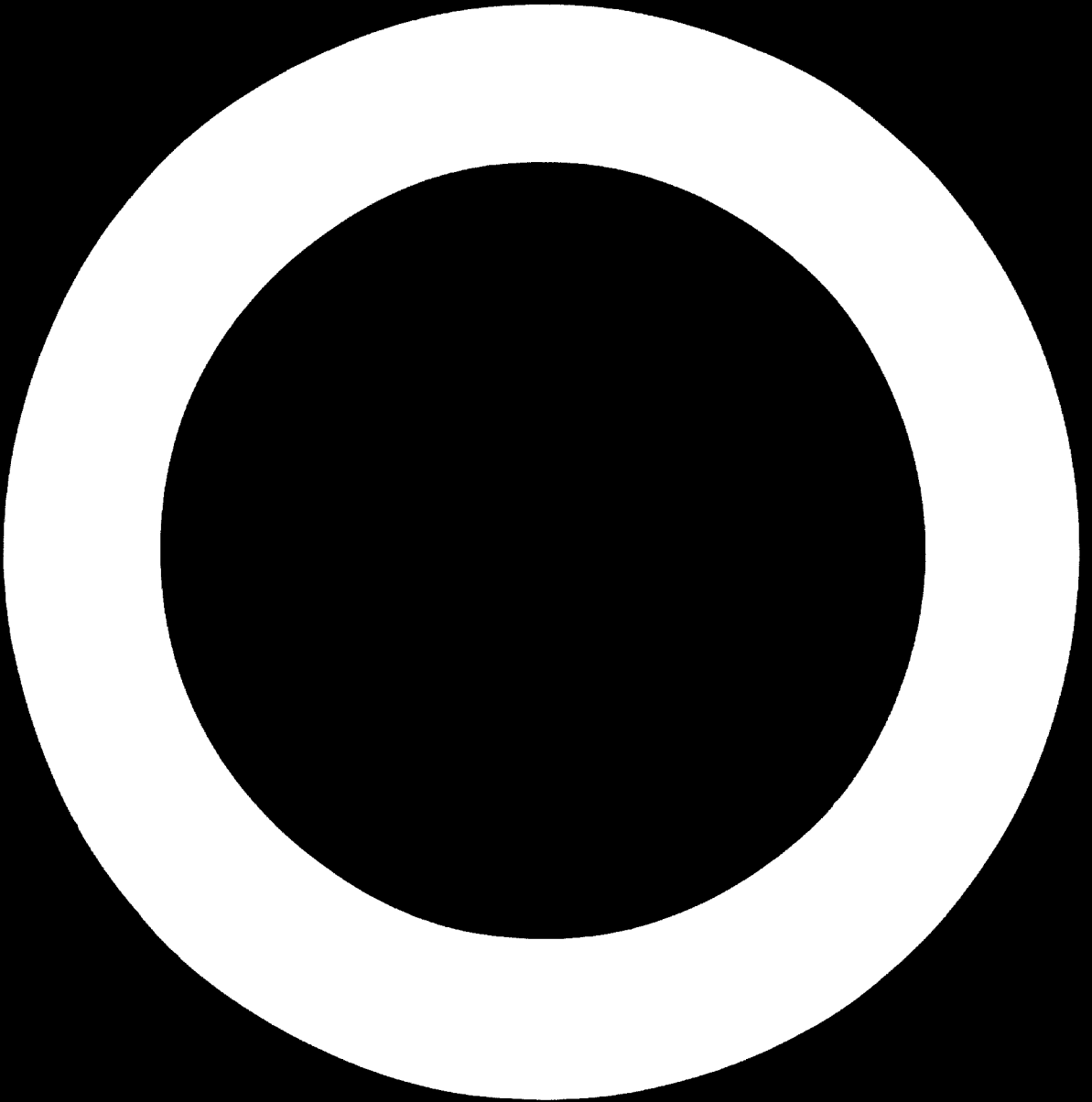
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## FOREWORD

As in the case of the preliminary volume of this series, the purpose of the summaries contained in this issue is to provide readily usable information on the industrial development features contained in the economic development plans of several countries. The plans included in this volume cover the first part of the United Nations Second Development Decade and present data on industry in a systematic fashion; this will be of particular use to national planners in developing countries: in an economic development plan, items bearing directly or indirectly to the industrial sector are found under several chapters which are often dispersed in more than one volume. Such information is, of course, 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. This volume will be available in both Spanish and French in the near future. The reader's attention is drawn to the comparative tables found at the beginning of this volume.

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CONTENTS

**SUMMARY TABLES**

- I. General background information
- II. Summary of the industrial development plan
- III. General background information
- IV. Summary of the industrial development plan
- V. General background information
- VI. Summary of the industrial development plan
- VII. General background information
- VIII. Summary of the industrial development plan
- IX. General background information
- X. Summary of the industrial development plan

**India: 1950-1970**

- I. General background information 11 - 12
- II. Summary of the industrial development plan 13 - 14

**Indonesia: 1950-1970**

- I. General background information 15 - 16
- II. Summary of the industrial development plan 17 - 18

**Turkey: 1950-1970**

- I. General background information 19 - 20
- II. Summary of the industrial development plan 21 - 22

**Kenya: 1960-1970**

- I. General background information 23 - 24
- II. Summary of the industrial development plan 25 - 26

**United Republic of Tanzania: 1960-1974**

- I. General background information 27 - 28
- II. Summary of the industrial development plan 29 - 30

**Costa Rica: 1960-1970**

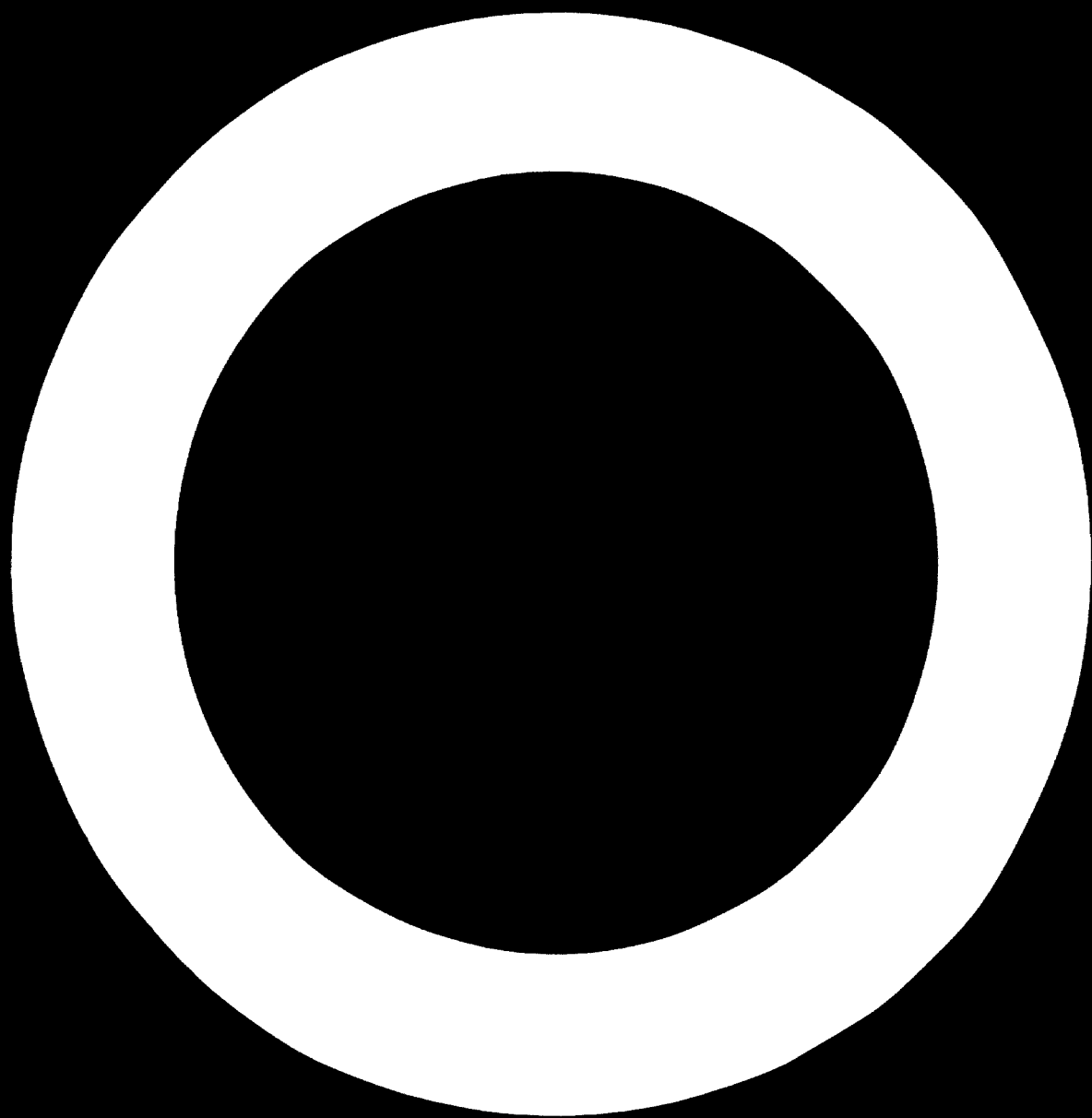
- I. General background information 31 - 32
- II. Summary of the industrial development plan 33 - 34

**The Hungarian People's Republic: 1971-1975**

- I. General background information 35 - 36
- II. Summary of the industrial development plan 37 - 38

**ANNEX: Planning techniques**

39 - 41



The summaries are prepared on the basis of the country's plan for the period 1953-55, or the country's plan for the period 1953-54, or the country's plan for the period 1954-55, or the country's plan for the period 1953-56, or the country's plan for the period 1953-57, or the country's plan for the period 1953-58, or the country's plan for the period 1953-59, or the country's plan for the period 1953-60, or the country's plan for the period 1953-61, or the country's plan for the period 1953-62, or the country's plan for the period 1953-63, or the country's plan for the period 1953-64, or the country's plan for the period 1953-65, or the country's plan for the period 1953-66, or the country's plan for the period 1953-67, or the country's plan for the period 1953-68, or the country's plan for the period 1953-69, or the country's plan for the period 1953-70, or the country's plan for the period 1953-71, or the country's plan for the period 1953-72, or the country's plan for the period 1953-73, or the country's plan for the period 1953-74, or the country's plan for the period 1953-75, or the country's plan for the period 1953-76, or the country's plan for the period 1953-77, or the country's plan for the period 1953-78, or the country's plan for the period 1953-79, or the country's plan for the period 1953-80, or the country's plan for the period 1953-81, or the country's plan for the period 1953-82, or the country's plan for the period 1953-83, or the country's plan for the period 1953-84, or the country's plan for the period 1953-85, or the country's plan for the period 1953-86, or the country's plan for the period 1953-87, or the country's plan for the period 1953-88, or the country's plan for the period 1953-89, or the country's plan for the period 1953-90, or the country's plan for the period 1953-91, or the country's plan for the period 1953-92, or the country's plan for the period 1953-93, or the country's plan for the period 1953-94, or the country's plan for the period 1953-95, or the country's plan for the period 1953-96, or the country's plan for the period 1953-97, or the country's plan for the period 1953-98, or the country's plan for the period 1953-99, or the country's plan for the period 1953-2000.

Summary of Contents

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It should be noted that in some of the summaries gross domestic product (GDP) figures are at factor cost while in other they are at market prices. In many cases, however, the source plans do 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

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2 The first volume of this series was issued under the symbol *WPA 1953*.

mining and quarrying, water, gas and electricity, in addition to manufacturing. The data for both, the starting year and the ending year of most of the plans are, of course, estimates. This explains the sometimes considerable difference in a country's actual reported GDP and the GDP which it used in its plan.

A major obstacle in the preparation of this series was the non-availability of plans covering the 1970-1975 period at UNCTAD Headquarters; nevertheless, it was possible to summarize the plans of Iran, Turkey, and Pakistan (Regional Co-operation for Development), Senegal and Tanzania (East African Common Market), Costa Rica (Central American Common Market). Unfortunately, the plans of certain countries of these regional groupings will only be available late in 1971 and can only appear in a summarized form in Volume III. The inclusion of the summary of the industrial development plan of Hungary will be followed later by summaries of the plans of other COMECON countries, Bulgaria and Poland, whose economic development plans will appear during 1971.

Part I: "General background information" has been compiled from all sources of information available at UNCTAD, 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 ECONOMIC INFORMATION** (compiled from all sources of information available at WTP)

1. **Basic Statistics**
2. **Commodity**
3. **GDP**
4. **Economic Indicators**
5. **Industrial products and technology - 1954-1959**
6. **Industry related resources and status**
7. **Overall economic development strategy and policy**
8. **Regional development**
9. **System for planning and plan administration**
10. **Business structure through the current plan period**

**II. SUMMARY OF THE FIVE YEAR 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) Resource and productivity
  - (iii) Investment and capacity utilization
  - (iv) Interconnections between growth factors
3. **Key areas and subsectors**
4. **Planned growth of industrial sectors**
  - (i) Planned growth of manufacturing sectors
  - (ii) Planned growth of electricity
  - (iii) Planned growth of mining
  - (iv) Priority of sectors
  - (v) Infrastructural problems connected with industry
5. **Current industrial structure**
6. **Investment and infrastructural plans related to industrial sectors**
7. **Business structure through the industrial sector**

How to use the summaries

National planners

Some of the ways in which the summaries can be used are the following:

- As a record of the various industrial areas which may be developed in a country; and a general indication of the details which 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 amount and type of support which countries plan to give to industrial development, compared with the development of other sectors of their economies;
- As a source of general information on the capital investment per annum (unit of cost) recommended by other countries, for new industrial plants of various types and sizes;
- As a reminder of possible inter-areas, inter-annual and plan implementation.

Technical assistance, UNCTAD country programming, regional co-operation

These new 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. However, the summaries will play a key role as part of the material required in the preparation of technical assistance programmes, particularly within the framework of UNCTAD country programming. In including countries which are members of a regional co-operation scheme, this volume will be used in the preparation of technical assistance programmes within the area; nevertheless, the summaries of industrial development plans of countries forming part of a regional group will be primarily used by member countries:

- To identify areas of incompatibility between various national goals and objectives, as well as between these and the declared regional aspirations;
- To permit improved policy formulation, harmonisation and co-ordination;
- To identify problem areas common to the region as a whole;

- To study trends in industrial location and their location reported by each member country, so that in their national development plans;
- To identify classes of commodities which are either substitutes or complementary to each other;
- To advise the framework and general guidelines which should be created within the region.

UNEP has, in fact, received requests from the secretariats of numerous industrial countries in Latin America, Africa and other parts of the world to assist in the preparation of comparative analyses based on the summaries of the industrial development plans of member countries, in order to attain the above-mentioned objectives. It is expected that such countries will have been covered during 1971 through such UNEP assistance.

**Second Development Decade**

The plan summaries thus contribute in a large way to the UNEP efforts in the Second Development Decade. Apart from being used to promote regional co-operation and assisting in the preparation of technical assistance projects, the summaries are also instrumental in the review and appraisal of the objectives and policies of the International Development Strategy which is to be implemented through the Second Development Decade according to the General Assembly's resolution on this subject<sup>9/</sup>. In paragraph 79 of this resolution it is stated that:

"Appropriate arrangements are necessary to keep under systematic scrutiny the progress towards achieving the goals and objectives of the Decade - to identify shortfalls in their achievement and the factors which account for them and to recommend positive measures, including new goals and policies as needed....".

The summaries contribute significantly to this end by including the goals and objectives to be attained in each year through which the industrial development plans is to be implemented, as well as the policy measures to be adopted over the four or five-year period. The clear and systematic way in which all information is presented

<sup>9/</sup> Resolution 2641 (XXV) **Review and appraisal of the objectives and policies of the International Development Strategy**

provides a set of benchmarks which constitute a basis for the review and appraisal of the objectives and policies of the International Development Strategy with respect to industrialization.

Volume III of this series is expected to include the summaries to the industrial development plans of some 14 countries; while priority will continue to be given to countries who are members of regional organizations, the needs in connection with UNDP country programming and with the Second Development Decade will also be met. It is expected that it will be possible in future to include an annex describing the planning techniques used in the preparation of an economic development plan which will be included at the end of each summary. In the present volume, it has been possible to include such an annex only to the summary of the industrial development plan of Hungary.



**COMPARATIVE TABLES**

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

Planning areas	Costa Rica	Hungary	Iran	Kenya	Pakistan	Tanzania	Turkey	Totals		
	*	*	*	*	*	*	*	*	+	o
1. General goals and objectives										
(i) Planned growth	*	*	*	*	*	*	*	7	-	-
(ii) Other objectives	*	o	*	*	*	*	*	6	-	1
2. Strategy and policy										
(i) General	*	+	+	*	+	*	*	4	3	-
(ii) Manpower and productivity	*	*	*	+	*	+	+	4	3	-
(iii) Investment and capacity utilisation	o	*	*	+	*	+	*	4	2	1
(iv) Interconnections between growth factors	o	o	o	*	+	*	o	2	1	4
3. Data bases and projections	*	o	*	*	*	*	*	6	-	1
4. Planned growth of industrial sectors										
(i) Planned growth of manufacturing sectors	*	+	*	+	+	+	+	2	5	-
(ii) Planned growth of electricity	*	+	*	*	*	*	*	6	1	-
(iii) Planned growth of mining	o	o	*	*	*	*	*	5	-	2
(iv) Priority of sectors	*	o	*	o	*	o	*	4	-	3
(v) Infrastructural problems connected with industry	o	o	o	*	*	+	o	2	1	4
5. Planned industrial projects	+	o	*	+	+	*	o	2	3	2
6. Organisational and institutional changes required for the industrial plan implementation	o	o	o	o	+	*	*	2	1	4
7. Problem areas particular to the industrial sector	o	o	*	o	o	*	*	3	-	4

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.



Approximate Manufacturing GDP per Capita - 1968  
(at market prices)

<u>Country</u>	<u>GDP at market prices</u> (billions of millions of national currency)	<u>Exchange rate</u> national currency per U.S. dollar	<u>GDP at market prices</u> (billion \$ U.S.)	<u>Population</u> ('000)	<u>GDP/capita</u> (U.S. dollars)	<u>Manufacturing</u> (U.S. dollars)	<u>Manufacturing GDP/capita</u> (U.S. dollars)
	<u>national currency</u>						
Canada	5,000.0 million	6.620	765	1,634	468	18.8%	88.0
Germany	221.0 million	30.000 <sup>1)</sup>	7,367	10,256	718	38.0% <sup>2)</sup>	273.0 <sup>3)</sup>
Iran	611.0 billion	75.500	8,095	27,345	296	12.0%	36.0
Italy	433.0 million	0.357	1,205	10,200	118	11.0%	13.3
Poland	68.0 million	4.707	14,203 <sup>4)</sup>	109,500	130 <sup>4)</sup>	12.0% <sup>5)</sup>	10.0 <sup>5)</sup>
Switzerland	5,069.0 million	7.140	822	12,500	66	6.4%	4.2
Turkey	114.4 billion	9.000	12,600	33,539	376	23.0	85.0

1/ Tourist rate of exchange.  
2/ Industrial GDP.  
3/ Industrial GDP/capita.  
4/ At market prices.  
5/ Related to GDP.

**Manufacturing GDP per Capita - 1972, 1974 and 1975**  
(at market prices)

	<u>GDP at market prices</u> (Million \$ U.S.)	<u>Population</u> (000)	<u>GDP/capita</u> (U.S. dollars)	<u>Manufacturing</u> (U.S. dollars)	<u>Manufacturing</u> GDP/capita (U.S. dollars)
Cuba (1972)	1,037	1,875	553	21%	111.0
Hungary (1975)	n.a.	n.a.	n.a.	n.a.	n.a.
Iran (1972)	12,300	30,500	403	1%	54.0
Italy (1974)	1,800	12,400	156	13%	18.5
Pakistan (1975) <sup>a</sup>	23,000	151,500	152	10%	15.0
Tanzania (1974)	1,185	14,200	83	9%	7.0
Turkey (1972)	13,200	37,000	355	27% <sup>aa</sup>	37.0 <sup>aa</sup>

<sup>a</sup>/ GDP.

<sup>aa</sup>/ Industrial GDP.

Number of Planned Manufacturing Projects 1\*

<u>Foodstuffs</u>	Costa Rica 1969-1972	Hungary 1971-1974	Iran 1968-1972	Kenya 1970-1974	Pakistan 1970-1975	Tanzania 1969-1974	Turkey 1968-1972
Canned fish	n.a.						
Milk pasteurisation	n.a.	n.a.					
Condensed milk	n.a.	n.a.	1				
Fish processing				n.a.			
Fish-meal	n.a.						
Sauces	n.a.						
Fruit juices	n.a.						
Dehydrated vegetables	n.a.	n.a.	1				
Canned vegetables	n.a.	n.a.	n.a.				
Glucose	n.a.						
Maize oil	n.a.						
Pastes	n.a.						
Flour	n.a.					n.a.	
Salt	n.a.						
Sugar		n.a.	1	1	n.a.		
Vegetable oils		n.a.					
Bakery products						n.a.	
Food, beverages and tobacco							97

\*/ Figures for Tanzania also include expansion projects in each of the manufacturing branches.

Number of Planned Manufacturing Projects (continued)

	Costa Rica 1969-1972	Hungary 1971-1975	Iran 1968-1972	Kenya 1970-1974	Pakistan 1970-1975	Tanzania 1969-1974	Turkey 1968-1972
<u>Beverages</u>							
Breweries	n.a.	n.a.	1	n.a.			
Liqueurs	n.a.	n.a.					
<u>Tobacco</u>							
Tobacco					1	n.a.	
<u>Textiles</u>							
Cotton cloth	n.a.			n.a.			
Synthetic fibres	n.a.						
Cotton fibres	n.a.						
Carpets				n.a.			
Handicrafts				n.a.			
Rayon cloth				n.a.			
Wool mills					1		
Textile wearing apparel and leather industries						51	

Number of Planned Manufacturing Projects (continued)

	Costa Rica 1969-1972	Hungary 1971-1975	Iran 1968-1972	Kenya 1970-1974	Pakistan 1970-1975	Tanzania 1969-1974	Turkey 1968-1972
<u>Wood and wood products</u>							
Furniture	n.a.						
Wood sheets	n.a.						
Timber			n.a.				
Plywood				1			
Pencils				1			
Pulp mills				2			
Wood products including furniture						67	
<u>Paper and paper products, printing</u>							
Kraft paper				1			
Paper for duplicates	n.a.						
Air mail paper	n.a.						
Cigarette paper	n.a.						
Transparent and absorbent paper	n.a.						
Cardboard boxes	n.a.						
Onion paper	n.a.						
Paper and paper products						12	
<u>Leather products</u>							
Shoes	n.a.						
Kid-leather				1			
<u>Rubber and rubber products</u>							
Rubber products	n.a.						
Tyres				1			



Number of Planned Manufacturing Projects (continued)

	Costa Rica 1969-1972	Hungary 1971-1975	Iran 1968-1972	Kenya 1970-1974	Pakistan 1970-1975	Tanzania 1969-1974	Turkey 1968-1972
<u>Chemicals, petrochemicals</u>							
Synthetic fibres		n.a.	1				
Sulphur and sulphuric acid	n.a.		3				
Urea	n.a.		2		2		
Formaldehyde	n.a.						
Insecticides and pesticides	n.a.		n.a.		11		
Fertilisers	n.a.n.a.		1	1	2		
Pharmaceuticals	n.a.n.a.				2		
Gasoline	n.a.						
Propane	n.a.						
Asphalt	n.a.						
Diesel	n.a.						
Aromatic derivatives		n.a.		n.a.			
Cosmetics		n.a.					
Detergents			1				
Ammonia			2				
Phosphoric acid			1				
Polyvinyl chloride			1		1		
Caustic soda			1				
Soda ash					1		
Liquefied gas			1				
Nelaris			1				
Ethylene				n.a.			
Isoprene			1				
Carbon sulphate			1				
Methanol			1				
Grease				1			
Lubricating oil				1			
Petroleum refineries					2		
Petrochemical complexes					2		
Chemicals including coal, petroleum and plastics						2	
Polymers	n.a.						

**Index of Planned Manufacturing Programs (continued)**

	Costo Base 1969-1972	1971-1972	1969-1972	1970-1972	1970-1972	1969-1972	1969-1972
	Industry	Iron	Steel	Aluminum	Nonferrous	Chemical	Other
<b>Non-metallic minerals</b>							
Asbestos	n.d.						
Cement						1	
Fibre-cement	n.d.						
Processed products	n.d.						
Refractory tiles	n.d.						
Porring tiles	n.d.						
Flagless pipes	n.d.						
Ceramics				1			
Pipe-bricks					1		
Specialized refractories					1		
Non-metallic mineral products							10
<b>Basic metals</b>							
Corrugated and galvanized iron sheets	n.d.						
Rolling mills		n.d.					
Steel			1		1		
Pig-iron					1		
Special and alloy steel					1		
Aluminum					1		
Basic metal industries							1

**Index of Planned Manufacturing Products** continued

	1966-1968	1969-1970	1971-1972	1973-1974	1975-1976	1977-1978	1979-1980
	1966-1968	1969-1970	1971-1972	1973-1974	1975-1976	1977-1978	1979-1980
<b>Tools and machinery</b>							
Iron tools	N.C.						
Machine tools			1	2			
Water pumps			1				
Compressors and presses			1				
Rolls, pivots and casters				1			
Heavy machinery					1		
Agricultural implements					1		
Subcontract metal products							77
<b>Electrical equipment</b>							
Electric motors	N.C.	1					
Transformers	N.C.						
Electricity	N.C.						
<b>Industrial engines</b>							
Industrial engines				1			
<b>Automotive and transportation</b>							
Vehicles	N.C.	N.C.					
Trucks			1				
Motor engines			1	1			
Signal lighting					1		

**Planned Investment Expenditures**

(million \$ U.S.)

	1972	1973	1974	1975	1976	1977	
	Costa Rica	Guatemala	Honduras	Nicaragua	Panama	Paraguay	
Food	34.6	n.a.	n.a.	43.1	n.a.	n.a.	154.0
Drinks	0.1	n.a.	n.a.	2.6	n.a.	n.a.	1.0
Tobacco	0.2	n.a.	n.a.		n.a.	n.a.	100.0
Textiles	8.2	n.a.	n.a.	5.0	n.a.	n.a.	40.0
Shoes and clothing	5.7	n.a.	n.a.	11.5	n.a.	n.a.	10.0
Wood	8.2	n.a.	n.a.	4.5	n.a.	n.a.	6.0
Furniture	1.2	n.a.	n.a.		n.a.	n.a.	
Paper and paper products	4.1	n.a.	n.a.	4.7	n.a.	n.a.	
Printing and publishing	1.7	n.a.	n.a.		n.a.	n.a.	0.6
Leather and leather products	0.6	n.a.	n.a.	2.9	n.a.	n.a.	13.0
Rubber products	2.6	n.a.	n.a.	6.2	n.a.	n.a.	
Chemical products	15.1	n.a.	n.a.	24.6	n.a.	n.a.	12.0
Petroleum derivatives	-	n.a.	n.a.	40.6	n.a.	n.a.	
Non-metallic minerals	0.9	n.a.	n.a.	13.0 <sup>2)</sup>	n.a.	n.a.	5.5 <sup>4)</sup>
Basic metals	2.3	n.a.	n.a.		n.a.	n.a.	1.0 <sup>4)</sup>
Metal products	2.4	n.a.	n.a.		n.a.	n.a.	53.0
Non-electric machinery	0.6	n.a.	n.a.	2.1 <sup>5)</sup>	n.a.	n.a.	4.0
Electrical equipment	4.4	n.a.	n.a.		n.a.	n.a.	20.0 <sup>6)</sup>
Transport material	0.1	n.a.	n.a.		n.a.	n.a.	1.0
Others	2.9	n.a.	n.a.	2.7	n.a.	n.a.	-
<b>Total</b>	<b>76.6</b>	<b>n.a.</b>	<b>n.a.</b>	<b>180.2</b>	<b>n.a.</b>	<b>n.a.</b>	<b>426.0</b>

1/ Textiles and clothing.  
 2/ Minerals and other mineral products.  
 3/ Glass and ceramics.  
 4/ Iron, steel and non-ferrous metals.  
 5/ Metal products and machinery.  
 6/ and electronics.

**Physical Inventory**

Section 0

	1950	1951	1952	1953	1954	1955	1956
Food		n. o.	n. o.	17.4	n. o.	n. o.	
Textiles		n. o.	n. o.	n. o.	n. o.	n. o.	
Tobacco		n. o.	n. o.	n. o.	n. o.	n. o.	
Textiles	17.0	n. o.	n. o.	17.0	n. o.	n. o.	
Shoes and clothing		n. o.	n. o.		n. o.	n. o.	
Fur	4.0	n. o.	n. o.	n. o.	n. o.	n. o.	
Furniture		n. o.	n. o.	n. o.	n. o.	n. o.	
Paper and paper products	7.0	n. o.	n. o.	n. o.	n. o.	n. o.	17.0
Printing and publishing	2.0	n. o.	n. o.	n. o.	n. o.	n. o.	2.0
Leather and leather products	1.0	n. o.	n. o.	n. o.	n. o.	n. o.	1.0
Other products	5.0	n. o.	n. o.	n. o.	n. o.	n. o.	5.0
Chemical products	51.0	n. o.	n. o.	51.0	n. o.	n. o.	222.0
Specialized derivatives	3.6	n. o.	n. o.	42.7	n. o.	n. o.	1.0
Non-metallic minerals	6.2	n. o.	n. o.	n. o.	n. o.	n. o.	12.0
Other metals	17.2	n. o.	n. o.	17.2	n. o.	n. o.	17.2
Steel products	14.0	n. o.	n. o.	21.0	n. o.	n. o.	33.0
Non-ferrous minerals	17.6	n. o.	n. o.	17.6	n. o.	n. o.	173.0
Metals	20.8	n. o.	n. o.		n. o.	n. o.	20.8
Transport material	10.4	n. o.	n. o.	110.6	n. o.	n. o.	11.0
Other	8.0	n. o.	n. o.	10.0	n. o.	n. o.	23.0
<b>Total</b>	<b>200.0</b>	<b>n. o.</b>	<b>n. o.</b>	<b>200.0</b>	<b>n. o.</b>	<b>n. o.</b>	<b>477.0</b>

Textiles and clothing.  
 Food products.  
 Shoes and clothing.  
 Iron, steel and non-ferrous metals.  
 Printing and publishing paper and magazines.

Average Annual Rates of Growth Between 1969-1975

	Rate of growth of GDP	Rate of growth of GDP/capita	Rate of growth of industrial GDP	Rate of growth of industrial GDP/capita
Costa Rica	7.0%	4.2%	10.5% <sup>*</sup>	6.0% <sup>*</sup>
Hungary	n.a.	n.a.	n.a.	n.a.
Iran	10.0%	7.3%	13.0% <sup>*</sup>	10.3% <sup>*</sup>
Kenya	6.8%	4.5%	9.2% <sup>*</sup>	5.8% <sup>*</sup>
Pakistan	6.5% <sup>**</sup>	4.1% <sup>**</sup>	10.2% <sup>*,**</sup>	7.4% <sup>*,**</sup>
Tanzania	7.7%	5.9%	13.0% <sup>*</sup>	11.8% <sup>*</sup>
Turkey	7.0%	4.9%	10.8% <sup>*</sup>	8.0% <sup>*</sup>

\* manufacturing  
\*\* of GDP

Export Figures for the Last Years of the Development Plans

	Export of manufactured goods (billion \$ U.S.)	Manufactured exports of total exports	Export rates of growth	Export/Import ratio
Costa Rica (1972)	27.0	32.3%	9.1%	0.91
Hungary (1975)	n.a.	n.a.	n.a.	n.a.
Iran (1972)	n.a.	n.a.	17.5%	1.52
Kenya (1974)	180.0	31.4%	7.5%	0.83
Pakistan (1975)	n.a.	n.a.	8.4%	0.67
Tanzania (1974)	n.a.	n.a.	4.9%	0.93
Turkey (1972)	424.0	48.9%	7.1%	0.65

SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF IRAN: 1968 - 1972 <sup>a/</sup>

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

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<sup>a/</sup> The Fourth National Development Plan 1968-1972, pp. 335, Plan Organization, Teheran 1968.

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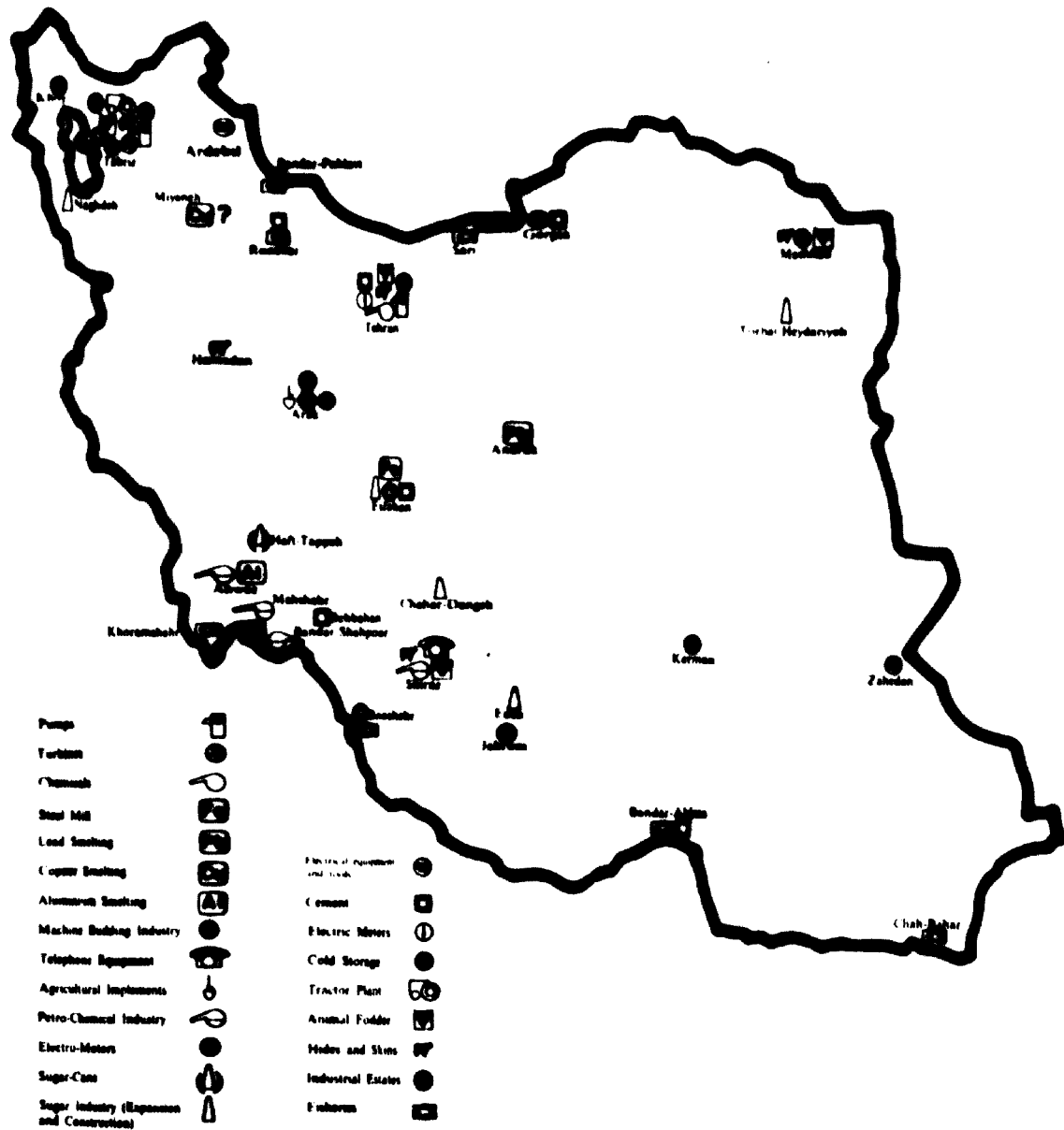
For a detailed bibliography on particular aspects of the Iranian economy see:

OCDE: Bibliographie sur l'Iran, Paris, OCDE Centre de Développement, 1965, 400 pp.

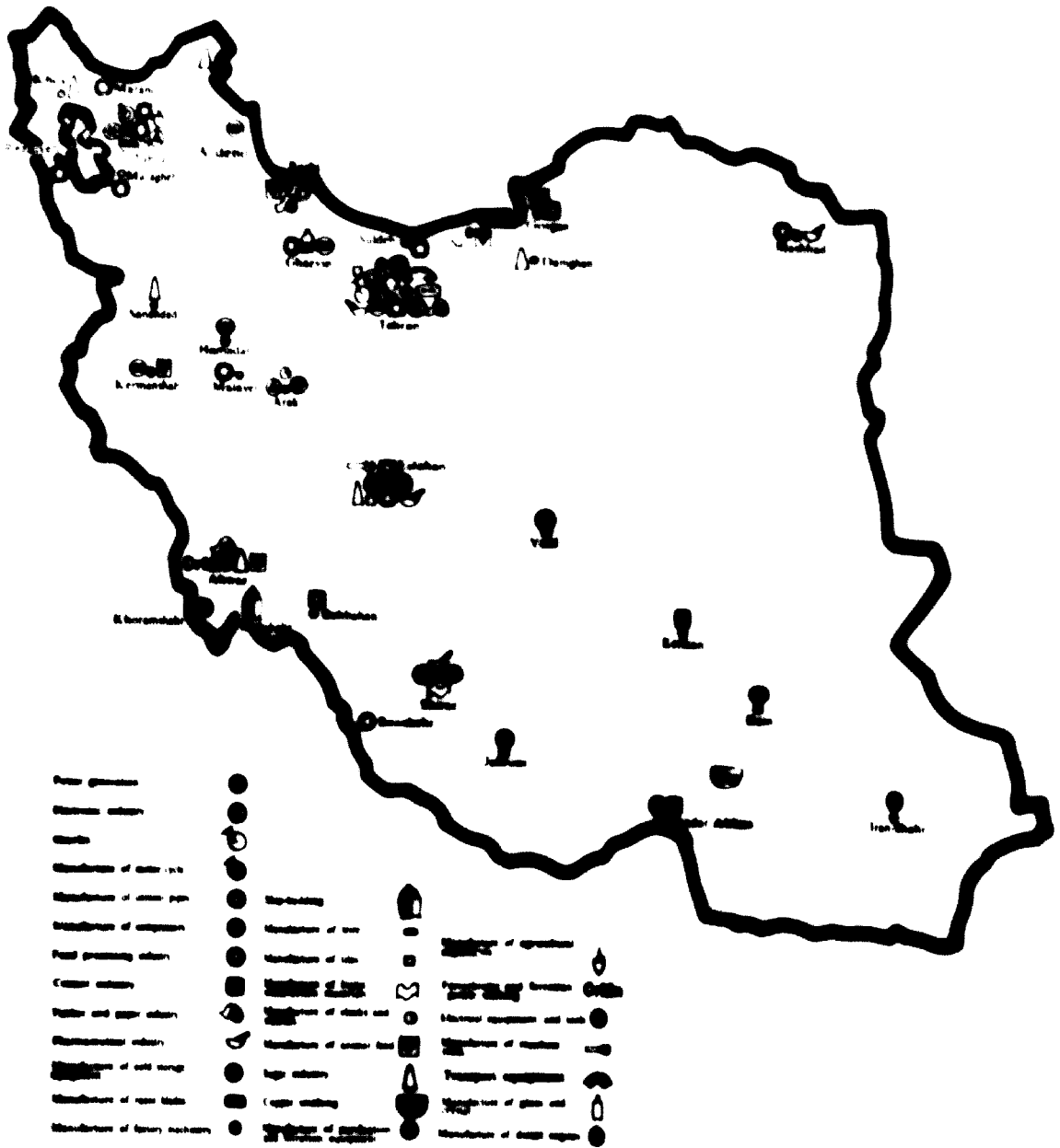
A comprehensive set of information, including all details on costs of land, building, utilities, transport, labour, etc. is available in the Bank Markazi's Investors' Guide to Iran. It further contains legal aspects of foreign investments and procedure to establish an enterprise and gives a sample application for the import of capital. Finally, all information on banking and credit institutions, insurance, taxation, marketing, status of foreign nationals and industrial property protection is included.



# INDUSTRIAL PROJECTS IN THE FOURTH PLAN



### FORECAST OF NEW PRIVATE SECTOR INDUSTRIAL PROJECTS IN THE FOURTH PLAN



I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Iran:

<u>Area:</u>		1,650,000 km <sup>2</sup>
	Agricultural area	425,000 km <sup>2</sup>
	Forests and pastures	297,000 km <sup>2</sup>
	Desert and non-arable land	928,000 km <sup>2</sup>
<u>Major cities:</u>		<u>Population</u>
	Teheran	2,720,000
	Ispahan	425,000
	Mashad	410,000
	Tabriz	404,000
	Abedan-Khorramshahr	362,000
<u>Other data:</u>	Average household size	4.8
	Average rooms per household	2.1
	Number of passenger cars in use	220,000
	Post, telegraphs and telephones	1,300 post offices of which 1,100 with telegraph services
	Electricity production	48,000 kwh/head
<u>Exchange rates:</u>		
	<u>Unit</u>	<u>Rials equivalent</u>
	US dollar	75.50
	Pound sterling	179.50
	Swiss franc	17.40
	French franc	15.10
	German mark	18.75
	Italian lire (100)	11.94

A Correspondence of Iranian\* and  
Gregorian Calendars (1700-1999)

1347

Month	1968	March 1968 to March 1969	
		March	21
Farvardin	1	March	21
Farvardin	31	April	20
Ordibehesht	1	April	21
Ordibehesht	31	May	21
Khordad	1	May	22
Khordad	31	June	21
Tir	1	June	22
Tir	31	July	22
Amرداد	1	July	23
Amرداد	31	August	22
Shahrivar	1	August	23
Shahrivar	31	Sept.	22
Mehr	1	Sept.	23
Mehr	30	October	22
Aban	1	October	23
Aban	30	Nov.	21
Azar	1	Nov.	22
Azar	30	Dec.	21
Dey	1	Dec.	22
Dey	30	1969 January	20
Bahman	1	January	21
Bahman	30	Feb.	19
Esfand	1	Feb.	20
Esfand	29/30	March	20

\*/ There are 31 days in each of the first six months of the Iranian calendar, 30 days in each of the next 5 months and 29 days in the last month, except in leap years when it has 30 days.

2. Population:

Distribution

<u>Age Group</u>	<u>1956</u>	<u>1966</u>
0 - 19	44.7%	45.0%
20 - 64	46.3%	41.0%
65 - over	4.0%	4.0%

The urban areas' population has increased at 4.5%, while rural areas at only 1.7%.

The total population grew from 21.7 million in 1959, to 26 million in 1966 at an average annual rate of 2.6%.

Active Population

(000)

	<u>1956</u>	<u>%</u>	<u>1967</u>	<u>%</u>
Active population	6,070	32.0	7,052	26.4
Employment seeking	160	0.8	120	0.4
Employed	5,910	31.0	6,932	26.0
Non-active population	12,885	68.0	19,624	73.6
Total population	18,955	100.0	26,676	100.0

Employment Distribution

(000)

	<u>1956</u>	<u>%</u>	<u>1967</u>	<u>%</u>
Agriculture	3,330	56.0	3,372	49.0
Industry	1,190	20.0	1,686	24.0
Services	1,390	24.0	1,874	27.0
Total	5,910	100.0	6,932	100.0

Education:

Primary Education During the Third Plan

1960-1

	<u>1964</u>	<u>1965</u>	<u>Increase</u>
Projected	1,544	2,224	681
Actual	1,713	2,900	1,187

The Literacy Corps was formed. Its aim is to send high school graduates, after a four-month's training during their military service, to rural areas and remote villages in order to extend educational services to adults and children, apart from the promotion of social and self-help services. 39,000 Literacy Corpemen have been trained. An average of 23,000 primary school students and 106,000 adults have benefited from them.

The illiteracy rate in the 10-45 age group was reduced from 64% to 65%, largely due to the expansion of primary education.

Technical training: by the Ministry of Labour:

- 1,500 workers;
- 2,400 supervisors;
- 300 instructors.

The Industrial Management Organization trained 5,500 people.

34,800 soldiers took agricultural and vocational training courses.

The Plan Organization and several Government agencies undertook training of:

- municipal personnel;
- police technical personnel;
- specialised accountants;
- graduate engineers;
- topographers;
- technical personnel for the railways;
- technical personnel for the merchant navy;
- technical personnel for provincial water and electricity utilities.

The private sector has been becoming increasingly important in education, including in short technical and vocational and on-the-job training.

Most large-scale industries provide on-the-job training for their workers.

The per capita cost of education, particularly in vocational and industrial schools, is very high due to inadequate facilities, higher drop-out rates, insufficient hours taught by teachers (17% of the current budget, and 4.3% of GDP).

Educational programmes are not consistent with the requirements of economic development.

3. GDP:

	<u>1962</u>	<u>1966</u>	<u>Average annual increase</u>
Industrial GDP/capita (\$)°	25	27	8.0%
Total GDP/capita (\$)°	210	270	5.0%
Population (000)	23,400	26,000	2.2%
Industrial GDP (million \$ U.S.)	595	955	10.2%
Total GDP (million \$ U.S.)	4,960	6,240	7.2%
Industry % of total GDP	11	13	

°/ Figures for manufacturing are not available.

GDP Structure  
(million \$ U.S.)

	<u>1962</u>	<u>%</u>	<u>1966</u>	<u>%</u>
Agriculture and animal husbandry	1,340	27.0	1,440	20.8
Industry and mining	590	12.0	950	14.9
Construction	282	5.7	440	6.3
Water and power	40	0.8	70	1.0
Oil	790	16.1	1,270	18.4
Other sectors	1,900	38.4	2,750	39.7
GDP at market prices	4,960	100.0	6,240	100.0

Priorities within the industrial sector were set according to the following criteria:

- contribution to national income;
- contribution to employment;
- savings in terms of foreign exchange;
- improvement in income distribution.

During the Third Plan, the industrial sector grew at 12% per annum and investments exceeded the amount forecasted.

The private sector laid the basis for the development of heavy industry and participated in private sector investments.

### Investments by Public and Private Sectors in Industry

(million \$ U.S.)

	1958	1959
Total fixed investment	645	1,270
by the public sector: value	214	484
\$	33	65
by the private sector: value	430	786
\$	67	71

Technical studies of various projects were carried out by the Government and effectively used by the private sector to take investment decisions.

The domestic industry was protected and encouraged through exemptions of customs duties, provisions of credit facilities and lower commercial benefit taxes. This made possible the diversification of production and increased exports (other than oil).

The highest rates of growth were experienced in the production of construction materials, machinery, metal products and clothing industries.



**World Bank of International Development - Annual Report 1962-1963**

	1962	1963	1964-1965
World Bank	104.0	438.0	670.0
International Development Bank	4.7	0.0	8.3
World Bank	648.0	1,700.0	1,600.0
International Development Bank	64.5	90.0	100.0
World Bank	134.0	315.0	300.0
International Development Bank	65.0	100.0	70.0
World Bank	21.0	80.0	75.0
International Development Bank	1.0	1.6	4.0
World Bank	5.7	17.0	6.0
International Development Bank	9.0	43.0	25.0
World Bank	2.0	24.0	8.0
International Development Bank			61.0

4. Macro-economic indicators:

<u>Money supply:</u>	1962 = 0 49 <sup>2</sup> million
	1966 = 0 49 <sup>2</sup> million
	Average annual increase 1.2%
<u>Prices:</u>	Average annual increase 1962-1966 1.2%
<u>GDP:</u>	1962 = 80, 400 million
	1966 = 85, 40 million
	Average annual increase 1.2%

Balance of Payments

(million \$ U.S.)

	1962	1966
Current account	28.0	-142.1
Capital account	2.2	122.4
Public sector	0.1	105.6
Private sector	2.0	16.7
Gold	-0.1	-
Overall balance	30.1	-19.6

Development Expenditure within the Framework of the Third Plan

(million \$ U.S.)

	Approved allocation	Total	Actual expenditure to 1967	Total	Expenditure as % of approved allocation
Agriculture and irrigation	640	21.3%	490	25.7%	39.1%
Industry and mining	380	12.6%	160	7.7%	20.0%
Power and fuel	680	15.2%	270	12.6%	18.5%
Communications	790	26.1%	500	26.6%	33.7%
Education	280	7.0%	100	8.7%	31.1%
Health	180	4.9%	170	6.8%	37.8%
Labour and manpower	40	1.0%	30	1.6%	40.0%
Urban and rural development	180	3.4%	80	3.6%	20.0%
Planning and statistics	30	0.7%	22	1.7%	70.0%
Housing and construction	170	4.7%	140	6.6%	38.8%
Total	3,030	100.0%	2,170	100.0%	71.6%

**FINANCIAL STATEMENTS**

in U.S. Dollars

	1987	1986	1985
1987	400	400	400
1986	400	400	400
1985	400	400	400
1984	700	700	700
1983	700	700	700

**FINANCIAL STATEMENTS**

in U.S. Dollars

	1987	1986	Total
<b>Assets:</b>			
<b>Current Assets:</b>			
Cash	200	200	400
Accounts receivable	100	100	200
Inventory	100	100	200
Prepaid expenses	50	50	100
Other current assets	50	50	100
<b>Total Current Assets</b>	500	500	1,000
<b>Non-current Assets:</b>			
Property, plant and equipment	100	100	200
Intangible assets	50	50	100
Other non-current assets	50	50	100
<b>Total Non-current Assets</b>	200	200	400
<b>Total Assets</b>	700	700	1,400

Industrial products and technology - spin manufacturing industries:

After a start in consumer manufactures, industrialisation is now spreading to intermediate and capital goods.

Due to the projects under construction, the structure of the economy will be considerably different from the present one.

Attention is being increasingly devoted to the promotion of free trade-based industries producing intermediate and capital goods.

6. Industry - related resources and sectors:

7. Overall economic development strategy and policy:

8. Regional co-operation: (see also page 87)

The Regional Co-operation for Development (RCD) was created in July 1964; its object is not an economic integration but rather preferential treatment and co-operation. Member countries are Turkey, Pakistan and Iran.

The Regional Co-operation for Development comprises a total of 180 million people and has a GNP of \$27,000 million; this represents a per capita income in the region of \$155. These figures do not reflect the vast discrepancies existing between the three countries.

A Permanent Secretariat was established in Teheran; it is responsible to a Ministerial Council composed of the Ministries of Foreign Affairs of the member countries.

A Regional Planning Council has also been created, composed of the chiefs of the planning organisation of each country. Its main function is to harmonize the assistance of several working groups. Its interests are in projects of a regional nature and in long-term trade agreements.

Three "common" projects are now in the process of realisation:

- an aluminium plant at Ahwaz (Iran), financed by Iran, Pakistan and a private US investor;
- a paper plant for producing bank notes, located in Pakistan;
- a jute processing factory to be located also in Pakistan.

A project to produce carbon-black has been approved and will be located in Iran.

Preliminary agreements have been obtained in relation to other projects:

- locomotives in Turkey;
- cotton, lint paste products, wire, cables and ball-bearings in Pakistan
- a petrol refinery at Isnur has been approved by Turkey and Iran; the two countries are now studying the construction of a pipeline connecting Iran to a mediterranean port in Turkey.

The more significant results are to be attained by the Regional Co-operation for Development in the field of common services:

- common airline;
- common merchant shipping line;
- common oil organisation;
- common regional cultural institute;
- an RCD Chamber of Commerce.

Other measures which have already been taken include:

- the reduction of air mail postage;
- the creation of a commercial bank covering the three countries;
- the conclusion of a general technical assistance agreement;
- the establishment of the Assurance Centre at Karachi in 1965;
- the creation of a Consultative and Study Centre of the Regional Co-operation for Development.

While the intraregional trade has been increasing, it represents only a small portion of the countries' total foreign trade. This is in part due to a lack of progress in the trade liberalisation. The three economies are competitive, mainly in the industrial sector which consists largely of light manufactures. However, the economic development plans of Turkey and Pakistan will increase the production of intermediate and heavy goods by 70% and 66% respectively over the plan period. No figure for Iran is available.

The intraregional trade will also benefit from the creation in 1967 of a multilateral payment system.

Regional Co-operation for Development  
Intraregional Exports 1964

	<u>1964 exports f.o.b.</u>			<u>1964 imports c.i.f.</u>		
	<u>Intraregional export (million \$ U.S.)</u>	<u>Total exports</u>	<u>% of Total</u>	<u>Intraregional imports (million \$ U.S.)</u>	<u>% of Total</u>	
Iran	56.0	1,253	4.5%	n.a.	1.2%	
Pakistan	3.4	493	0.7%	n.a.	2.6%	
Turkey	5.0	411	1.2%	n.a.	1.6%	

Regional Co-operation for Development  
Composition of Intra-regional Imports

	<u>1963</u>	<u>1967</u>
Jute and jute products	4.0%	62.0%
Dried fish, meat and animal products	-	25.0%
Other agricultural products	9.0%	8.5%
Petroleum	85.0%	-
Manufactures	2.0%	1.9%
Others	-	2.6%
Total	100.0%	100.0%

Regional Co-operation for Development  
Composition of Intra-regional Exports

	<u>Iran</u> <u>1963-1964</u>	<u>Pakistan</u> <u>1963-1965</u>	<u>Turkey</u> <u>1963-1965</u>
Food-stuffs, beverages, tobacco	3.0%	10.4%	60.0%
Raw materials, fuel	93.5%	58.0%	35.0%
Manufactures	3.5%	31.6%	5.0%
Total	100.0%	100.0%	100.0%

- 4 -

**Value of Exports (excluding oil)**  
(million \$ U.S.)

	<u>1957</u>
Live animals	2.1
Vegetables	2.2
Fruits	20.6
Seeds	3.0
Tropenfrucht	3.9
Oil cakes	1.7
Caviar	4.1
Cotton	37.7
Carpets	49.2
Leather and leather products	11.8
Mineral ores	7.0
Others	<u>37.0</u>
Total	180.5



**Value of Imports**

(million \$ U.S.)

	<u>1967</u>
Milk and dairy products	6.9
Tea	8.9
Spices	1.3
Wheat (grain)	4.4
Wheat (flour)	0.3
Rice	1.7
Sugar	12.7
Vegetable oils	22.3
Cotton	1.3
Drugs	43.5
Electric appliances	18.4
Passenger cars	20.4
Ceramic products	5.0
Pesticides	7.6
Fertilizers	9.4
Other chemicals	14.5
Tanning and colouring products	19.1
Rubber and rubber products	21.8
Cardboard and paper	25.9
Silk	36.0
Wool	36.5
Glass and glassware	8.0
Iron	48.3
Steels	52.0
Piping	69.7
Other iron and steel products	55.6
Aluminium	10.6
Copper	4.9
Agricultural equipment	38.0
Industry and mining equipment	189.8
Electrical machinery	72.0
Other machinery and equipment	66.0
Optical and precision instruments	14.6
Others	215.7
<b>Total</b>	<u>1,198.0</u>

Prices: Domestic in Relation to Imports c.i.f.

<u>Item</u>	<u>Prices (\$)</u>		<u>Difference</u>
	<u>Domestic</u>	<u>Imports (c.i.f.)</u>	
<b>Paints:</b>			
Decorative (low quality) (duty: 55-65% of c.i.f. price)	0.72/kg	n.a.	n.a.
<b>Television sets: imports are not allowed</b>			
19" sets (new plants) (duty: 100%)	120.00	-	-
<b>Air coolers: no imports allowed</b>			
Model II	156.00	-	-
Model III	170.00	-	-
<b>Electric meters:</b>			
Present duty 15%			
Production has been initiated; production will probably be increased to 20%.			
<b>Cement:</b>			
	17.21/ton	60.35 (coloured)	-250%
		41.14 (other)	-
		(duty: coloured \$1.98/ton) other \$5.29/ton)	
<b>Jeep vehicles:</b>	1,785.21	3,802.76	-113%
<b>Tyres:</b>			
1200 x 24	118.00	232.20	-96%
Truck tyres	65.10	105.80	-77%
Note: Japanese imports average 20% less but probably benefit from export subsidy. (duty: 15% or \$0.10/kg)			
<b>Layland trucks:</b>	7,218.54	12,529.80	-73%
<b>Tyres:</b>			
750 x 17	35.70	60.46	-69%
Note: Japanese imports average 20% less but probably benefit from export subsidy. (duty: 15% or \$0.19/kg)			
<b>Cotton textiles: no imports allowed</b>			
Grey cloth	0.11/m	0.17/m	-54%

Prices: Domestic in Relation to Imports c.i.f. (continued)

Item	Price (\$)		Difference
	Domestic	Imports (c.i.f.)	
Meat preserves:		(US retail)	
Bologna	1.33-1.67	2.40	-43%
Tyres:			
Passenger car size 15	14.50	18.40	-26%
Note: Japanese imports average 20% less but probably benefit from export subsidy. (duty: 15% or \$0.19/kg)			
Meat preserves:		(US retail)	
Sausages	1.22-1.67	1.20-2.00	-19%
Electric switchgear:	100.00	118.00	-18%
Import prices are 18% above the domestic price.			
Pharmaceuticals:	n.a.	n.a.	-12%
Prices kept 5%-12% below c.i.f. by the Government.			
Carbon steel and stainless blades:	1.03	1.09	-5%
(duty: 33%)			
Cables:			
Largest	12,310.00/km	12,110.00/km	+1%
Layland diesel engines (for 1972):	2,088.74	2,013.24	+3%
DDB:	190.00/ton	180.00/ton	+5%
Cables:			
Smallest	134.35/km	124.50/km	+7%
Telecommunication equipment:			
Telephone sets	16.88	15.23	+9%
Telephone exchanges: domestic prices are 50% higher			
Transformers:	110.00	100.00	+10%
(duty: 15%, domestic prices are 10% higher)			
Pumps:	n.a.	n.a.	+15-20%
Domestic prices are about 15-20% above c.i.f. prices. (duty: 20%)			
Dorman diesel engines (for 1972):	3,576.15	3,046.35	+17%
Radios:			
Average	57.00	48.00	+18%

Prices: Domestic in Relation to Imports c.i.f. (continued)

Item	Prices (\$)		Difference
	Domestic	Imports (c.i.f.)	
Vegetable oils:			
Mixed refined vegetable oils (sunflower, cotton seed) (duty: 80% or \$0.35/kg)	0.47/kg	0.3	+20%
Diesel engines:			
Mercedes-Benz (1972)	1,892.71	1,560.26	+21%
Paints:			
Decorative (high quality) (duty: 55-65% of c.i.f. price)	1.25	1.00	+25%
Woollen textiles:			
Projected Fernan plant	3.27/m	3.17/m	+29%
Passenger cars:			
Rambler	3,152.31	2,499.33	+26%
Steel wire, nails, screws:			
Nails (duty: 200%)	0.34/kg	0.23/kg	+32%
Woollen textiles:			
Vaton plant (duty: 100% or above)	2.64/m	1.98/m	+33%
Paper:			
Writing and printing (duty: 21% or \$0.05/kg)	0.34/kg	0.25/kg	+36%
Paints:			
Industrial (high quality) (duty: 55-65% of c.i.f. price)	1.85	1.32	+40%
Space heaters:			
(duty: 50%)	42.00	27.00-30.00	+40%
Paints:			
Industrial (baking enamel) (duty: 55-65% of c.i.f. price)	1.12	0.79	+41%
Meat preserves:			
Pressed ham	3.60	(US retail) 2.00- 2.50	+44%
Rolled steel:			
Rolled steel products (duty on finished products: 40%)	160.00/ton	110.00/ton	+45%
Synthetic fibres:			
No. 20 deniers	3.84/kg	2.64/kg	+45%
Steel wire, nails, screws:			
Drum wire (duty: 36%)	0.22/kg	0.15/kg	+46%

Prices: Domestic in Relation to Imports c.i.f. (continued)

Item	Prices (\$)		Difference
	Domestic	Imports c.i.f.	
Synthetic fibres:			
No. 40 deniers	2.78/kg	1.78/kg	+56%
No. 70 deniers	2.64/kg	1.45/kg	+82%
PVC:	0.43/kg	0.25/kg	+72%
(duty: 80.12/kg or 63%)			
Refrigerators:			
GE	122.86	147.34	+20%
Electric fans (for 1972):	33.11	18.54	+78%
(duty: 45%)			
Cotton textiles: no imports allowed		(from Japan)	
Printed cloth	0.22 m	0.19 - 0.12 m	+33%
Passenger cars:			
Citroën	2,000.00	1,033.11	+93%
Air coolers: no imports allowed			
Model I	120.00	60.00	+100%
Refrigerators:			
Arj	139.07	68.54	+102%
Aamapoch	104.90	51.65	+103%
Glass:			
3 mm	1.98	0.92	+115%
Caustic soda:	0.13/kg	0.06/kg	+116%
(duty: 100%)			
Refrigerators:			
Philco PG7A	185.43	68.11	+172%
Glass:			
2 mm	1.19	0.39	+204%
8 mm	15.89	5.03	+215%
6 mm	7.28	2.25	+223%
4 mm	4.23	1.30	+224%
(duty averages 190%)			
Sugar: no imports allowed			
White crystalline sugar	0.30/kg	0.09/kg	+233%
(duty: 80.13/kg or 125%)			
Television sets: imports are not allowed			
19" sets (present plant)	246.00	63.00-70.00	+251%
(duty: 100%)			

**Summary of Trade 1957-1962**

**Exports**

For:	
European Economic Community	39.5%
United States	17.0%
United Kingdom	11.7%
Japan	7.7%
Socialist countries	6.3%
Other and Pakistan (Regional Co-operation for Development)	6.3%
Others	16.0%

**Imports**

For:	
Socialist countries	27.0%
European Economic Community	20.0%
United States	11.0%
United Kingdom	9.0%
Japan	8.0%
Other and Pakistan (Regional Co-operation for Development)	6.0%
Others	19.0%

**Trade Agreements:**

Trade agreements with the socialist countries: 1959 to 1962 for a five-year period. Similar agreements have been concluded with Poland, Bulgaria, Hungary, Rumania, Czechoslovakia and Yugoslavia.

Free-trade agreements e.g. with Britain, France and India.  
With the EEC, Egypt has a most favoured nation treatment;  
preferential access and reduced tariffs exist for European carpets,  
cottons, dried apricots and pistachio s.

Treaty with West Germany, North Korea and China has not been  
officially recognized, but trade plans under general international  
regulations or through a third country.

The EEC agreement: tariff reductions may take place in future.

### 2. **SYSTEM FOR MONITORING AND EVALUATING DEVELOPMENT:**

Legislational and administrative reforms were carried out  
during the Third Plan.

The Plan Organization is responsible for the approval of  
development programmes and projects, as well as for their financing.

It has taken action to co-ordinate policies through the  
High Planning Council. Implementation of projects is assigned to  
ministries and responsible agencies.

A planning and budgeting system has been created by the Plan  
Organization through the establishment of the General Bureau for  
Reports and Budgeting. Its task is to prepare the development  
and the current budget for the Government.

The Organization for Administrative Affairs and Employment  
was set up to improve employment regulations and organization  
systems of ministries. The new ministries were set up:

- Ministry of Labor and Power;
- Ministry of Employment and Security;
- Ministry of Natural Resources;
- Ministry of Land Reclamation and Rural Co-operation;
- Ministry of Agricultural Products and Food-  
stuffs;
- Ministry of Science and Higher Education.

In order to further decentralization, project and planning  
bureau have been created in ministries, technical bureaus in  
provincial centers and the budget has been broken down by provinces  
in central fields.

12. Problems encountered through the Second Five Year Plan:

The effects of the recession in the last stages of the Second Plan were felt in the first half of the Third Plan.

In the second half of this period, increased incentives and confidence induced fast rates of growth.

Shortage of water resources: failure to use what is available efficiently.

Peasants' ignorance of modern production methods and marketing; also the lack of financial resources. Government loans and assistance have been inadequate.

Lack of policies to stabilize agricultural incomes against price fluctuations.

The small size of agricultural units does not justify the use of modern production techniques.



**INDIA: GROSS AND NET INCOME**

**(1) Planned Growth**

	1957	1971	Average Ann. % Increase
Gross Fixed Capital Formation (GFCF) (billion \$)	1,000	1,700	10.0
Net Fixed Capital Formation (NFCF) (billion \$)	800	1,300	12.0
Population (million)	40,000	45,000	2.0
Gross Fixed Capital Formation per worker (billion \$/million)	25	38	10.0
Net Fixed Capital Formation per worker (billion \$/million)	20	29	12.0
Gross Domestic Product (GDP) (billion \$)	2,500	4,000	12.0
Gross Domestic Product per worker (billion \$/million)	62.5	88.9	10.0
Exports of goods and services (billion \$)	2,000	4,000	17.0
Imports of goods and services (billion \$)	1,500	2,700	13.0
Net accumulation of foreign loans and capital, changes in foreign exchange reserves (billion \$)	500	300	-13.0

**(2) Policy Objectives:**

The Fourth Plan is the first stage of a long-term programme with the following objectives:

- to make the country independent in essential goods;
- to manufacture capital and intermediate goods and to further import-substitution;
- to steadily expand production of manufactures.

## 2. Strategy and policy:

### 1) General:

In order to attain the targets set for the industrial sector, the following policies will also be implemented:

- Industries related to agriculture will be emphasized in order to make fuller use of agricultural products, thereby raising the farmers' incomes and their purchasing power.
- Industries will be established in the under-developed but suitable regions of the country.
- Special attention will also be paid to the quality in order to be competitive on the international market.
- Special attention will be paid to scientific research and the standardisation of all industrial products.
- The Government will play an increasingly active role in the manufacturing sector, particularly in relation to the establishment of heavy industry.
- The export policy will be directed toward the diversification of export commodities.
- The import policy will further import-substitution firstly of consumer goods and later of capital goods.
- Services, such as shipping, consulting, engineering, tourism, etc. will be increased.
- Foreign experts will gradually be replaced by Iranians and greater emphasis will be placed on training.
- Policies will be adopted to further the participation of industrialists and entrepreneurs in the on-the-job training in industry.
- Vocational schools will be set up and advanced technical schools will be supported, particularly to serve the country's new industries.
- New distribution and marketing methods will be furthered.
- Financial and technical assistance in marketing will be made available to producers of export goods.
- The cost of employing foreign and Iranian experts in highly specialized fields will be shared.

To encourage private investors in industry:

- the Government will carry out feasibility studies and prepare industrial projects;
- credit facilities will continue to be made available. Participation will be furthered with private entrepreneurs through specialized banks;
- the activities of these banks will be expanded to ensure that sufficient working capital is available;
- the terms of loans will be reviewed according to different regions and industries;
- exhibitions of various products will be held at home and abroad;
- exhibitions will also bring the latest technical methods to the attention of both industrialists and investors;
- the Government will organize seminars and will arrange for mobile audio-visual demonstrations of technical principles and of improved working methods to owners of small-scale and cottage industries;
- public sector establishments will have to obtain their requirements from domestic industries;
- incentives will encourage private entrepreneurs to make use of systems of management and cost accounting and to publish annual reports.

In order to increase foreign exchange reserves to \$600 million in 1973, the Bank Markazi Iran (the Central Bank) will take the required measures.

Prices will be maintained stable during the plan period, largely through the Government's financial policies and programmes based on the following principles:

- increasing revenue from oil, taxation and the sale of Government goods and services;
- agreeing on a maximum limit for the growth of general and current expenditures;
- utilising private sector savings by a policy of offering optimum interest rates on treasury bonds and other Government securities;
- utilising foreign credits and loans to overcome the shortage of financial resources.

The Government revenue will include in the 1966-1973 period:

	<u>Million \$ U.S.</u>
Oil	6,445
Customs, commercial duties	1,655
Direct taxation	980
Indirect taxation	690
Government profit-making and commercial enterprises	1,000
Post, telegraph, foreign ministry, police and other services	330

The Government expenditure growth will be limited to an average annual increase of 10%.

As regards foreign loans and credits, \$2,000 million will be used.

Treasury bonds and Government securities valued at \$610 million will be issued in order to finance the capital expenditure and military installations.

The Government will refrain from investing in industries in which the private sector is interested.

The attraction of foreign capital will be encouraged, particularly in fields requiring the co-operation of foreign entrepreneurs and a high degree of technical know-how.

(ii) Manpower and productivity:

The productivity in existing industries will be increased by means of:

- maximum capacity utilisation;
- renovation and development;
- sufficient supply of raw materials;
- sufficient supply of working capital;
- employing skilled workers;
- training in management;
- rationalising enterprises and applying sound management practices.

In connection with new enterprises, the following policies will be pursued:

- industrial studies and scientific research will be carried out;
- modern production methods will be promoted through the establishment of productivity promotion centres.

Distribution of Population of Working Age (12-64 age group)  
(000)

	<u>1967</u>	<u>1972</u>
Total of working age	14,860	16,900
Total active population	7,050	7,960
Total employed	6,930	7,900
Total seeking employment	120	60

Distribution of Employed Persons by Sector of Activity  
(000)

	<u>1967</u>	<u>%</u>	<u>1972</u>	<u>%</u>	<u>Increase</u>
Agriculture	3,370	49	3,600	46	230
Industry and mining	1,600	24	2,100	26	410
Services	1,870	27	2,200	28	330
All sectors	6,930	100	7,900	100	970

In order to achieve the above employment objectives, the following policies will be pursued:

- articles in the labour law prohibiting the employment of children under 12 years of age will be strictly enforced;
- a minimum wage will be established, especially in cases of low wage levels;
- primary, secondary and higher education will be rapidly extended;
- insurance and retirement benefits will be extended to the private sector;
- specialized vocational training courses will be introduced at the secondary school level and above;

- vocational training will be made available also for prisoners, vagrants, beggars, etc.
- the country's labour market will be regulated through labour exchanges and the Social Insurance Department of the Ministry of Labour and Social Affairs.

The following policies will be applied in relation to the industry and mining sector:

- employment growth will be realized through the creation and protection of small and medium-sized labour-intensive establishments around large industries;
- these establishments will be centralized within co-operative systems and specialised professional organizations;
- products of these establishments will be standardized and increasingly specialised in order to prevent destructive competition;
- maintain labour-intensive industries where increased labour productivity is not essential;
- handicraft industries in rural areas will be expanded in line with new domestic and foreign markets;
- employment effects of new industries will be an important criteria for new projects.

**Manpower Personnel in the Main Industrial Branches**

	New employees		Productive employees		Engineers		Technicians		Skilled workers		Non-productive employees	
	number	\$ million	number	\$ million	number	\$ million	number	\$ million	number	\$ million	number	\$ million
Manufacturing	297,000	71,242,000	71	1,700	58	6,000	48	171,000	68	55,000	70	
Construction	94,000	23,75,000	22	800	27	4,400	35	48,000	28	19,000	24	
Electricity	10,000	2,6,000	2	330	11	1,500	12	4,000	3	4,000	5	
Mining	16,000	4,15,000	5	100	4	560	5	2,000	1	1,000	1	
<b>Total</b>	<b>417,000</b>	<b>100,338,000</b>	<b>100</b>	<b>2,930</b>	<b>100</b>	<b>12,460</b>	<b>100</b>	<b>225,000</b>	<b>100</b>	<b>79,000</b>	<b>100</b>	

(iii) Investment and capacity utilisation:

Fixed Investment 1968-1973

(million \$ U.S.)

	<u>Public sector</u>	<u>Private sector</u>	<u>Total</u>
Industry and mining	1,150	1,590	2,740
Total whole economy	5,875	4,855	10,730

Sources of Fixed Investment 1968-1973

(million \$ U.S.)

	<u>Public sector</u>	<u>Private sector</u>	<u>Total</u>
Plan Organization credits	5,035	460	5,495
Government profit-making enterprises and municipalities	840	-	840
Private resources	-	4,395	4,395
Total	5,875	4,855	10,730

(iv) Interconnections between growth factors:

3. Data bases and projections:

The collection of statistical data faces the following problems:

- lack of co-ordination between officials of the executive agencies and the planning units;
- shortage of specialised statistical staff and the failure to appoint qualified administrative personnel in these services;
- the absence of an agency to supervise statistical projects, as well as the lack of an operational work schedule.



During the plan period:

- the present organization and regulations will be revised in order to improve the efficiency of the Iran Statistics Centre and other agencies;
- a permanent network for data collection will be created throughout the country;
- pre-employment and on-the-job training courses will be provided for statistical staff;
- order and continuity will be established in the preparation and publication of statistics, particularly in connection with labour and manpower;
- economic and demographic surveys will be carried out;
- civil registration will be reinforced;
- agencies responsible for the preparation of statistics and the calculation of national products and income will be reinforced;
- surveys are to be undertaken by the Iran Statistics Centre and those assigned to other agencies will be clearly defined.

4. Planned growth of industrial sectors:

(1) Planned growth of manufacturing sectors:

	<u>Value added</u>		<u>Average annual increase</u>
	<u>1967</u>	<u>1973</u>	
Food processing and tobacco	295	405	9.5%
Textiles, clothing, leather	173	245	9.0%
Basic metals and metallic products	66	100	14.0%
Cellulose	78	125	7.0%
Pharmaceuticals	8	20	21.0%
Chemicals	40	41	4.5%
Petrochemicals	3	210	87.0%
Mechanical, electrical engineering and vehicles	85	255	19.5%
Non-metallic minerals	60	103	9.0%
Handicraft and carpets	66	102	8.5%
Others	6	16	15.5%
Mining	<u>45</u>	<u>90</u>	<u>13.5%</u>
Total	925	1,715	13.0%

Public and Private Investment in Industry 1965-1973  
(million \$ U.S.)

	<u>Public sector</u>		<u>Private sector</u>		<u>Grand Total</u>
	<u>Plan Organisation credits</u>	<u>Plan profit-making and commercial enterprises Total</u>	<u>Plan Organisation credits</u>	<u>Resources Total</u>	
Food processing and tobacco	81	21.0	110.0	110.0	121 446
Metal and metal smelting	530	-	530.0	70.0	77 1,214
Mechanical and electrical engineering and vehicles	160	0.1	160.0	46.0	746 1,812
Chemicals and petrochemicals	332	2.5	345.0	9.0	435 1,550
Non-metallic minerals	5	-	5.0	46.0	55 120
Others including rural industries	15	1.5	16.0	21.0	179 390
<b>Total</b>	<b>1,123</b>	<b>25.0</b>	<b>1,148.0</b>	<b>103.0</b>	<b>1,510.0 1,613 5,532</b>
Technical assistance for training and research	35	-	35.0	-	- 35
Exploration and exploitation of mines	41	1.5	42.5	6.5	25 67
Assistance to private investors (loans or partnerships)	110	-	-	-	- 110
<b>Grand total</b>	<b>1,309</b>	<b>26.5</b>	<b>1,225.5</b>	<b>1,095.0</b>	<b>1,528.5 3,638 5,745</b>

Producers' co-operatives will be established for small-scale industries in order to promote a maximum employment and a more equitable income distribution.

Infrastructure for small-scale industries will be made available in cities, towns and industrial estates.

Efforts will be made to increase the percentage value added by domestic production in the case of the assembly industries.

Facilities will be provided to improve the supply of raw materials to the handicraft industries, as well as their products and sales.

Emphasis will be placed on processing domestic raw materials into intermediate or finished goods prior to being exported.

The Government will further the exploitation of marine resources in the Caspian Sea, Persian Gulf and the Sea of Oman. This will raise living standards and secure food materials for export.

(ii) Planned growth of electricity:

<u>Electricity</u>	
(capacity in kilowatts)	
1962	400,000
1967	1,342,000
1972	2,763,000

(iii) Planned growth of mining:

Public and private financed projects include:

- copper: production of cathodic copper will reach 15,000 tons in 1972 which is sufficient to supply domestic demand;
- lead: local production of 15,000 tons per year will satisfy the domestic demand;
- gold: a daily production of 200 tons of ore will be reached at the Hatch gold mine.

(10) Priorities of output:

The percentage growth of output during the plan period will be as follows:

- pharmaceuticals	20%
- pharmaceuticals	20%
mechanical and electrical	
engineering and vehicles	22%
- cellulose	13%
- metals and metal products	12%
- textiles, clothing, leather	10%
- food processing and tobacco	10%
- carpets and handicrafts	7%

(11) Industrial projects connected with industry:

4. Planned industrial projects:

Industry of priority:

Extraction and related industries:

The exploitation of our resources will be carried out by the Government in the Copper Era, Foreign Aid and in the Era of Peace.

Extraction:

The following projects will become operational by 1970:

The Salar Saltpetre complex:

Ammonia	100,000 tons per annum
Sulphur	100,000 tons per annum
Phosphoric acid	95,000 tons per annum
Various nitrogen and	
phosphate mixed fertilizers	254,000 tons per annum
Urea	100,000 tons per annum

The Andean complex:

Polyvinyl chloride	20,000 tons per annum
Interquartz	10,000 tons per annum
Quartz sands	20,000 tons per annum

The Elqui complex:

Sulphur	100,000 tons per annum
Liquidified gas	1,000,000 tons per annum

4. Further projects are to be implemented in the course of the plan period:

- expansion of the Ruzhice factory complex to produce nitric, glycol and urea	60,000 tons per annum
- project no. 1 for urea production	160,000 tons per annum
- nitrates	n.a.
- sulphur production	1,000,000 tons per annum
- supplementary project no. 2 for urea	450,000 tons per annum
- ethylene	n.a.
- synthesis of synthetic rubber	40,000 tons per annum
- ammonia	n.a.
- supplementary project for the production of nitric ammonium sulphate as a by-product	5,000 tons per annum
- carbon dioxide	10,000 tons per annum
- ethanol	100,000 tons per annum

**Sulphur plant:**

Location: Tuzhice  
 Capacity: 1st stage: 600,000 tons per annum  
 2nd stage: approximately 1.2 million tons per annum

Products will be sulphur and FeS<sub>2</sub>.

**Aluminium sulphate plant:**

Location: Hruboska  
 Capacity: 45,000 tons per annum

It is to produce aluminium sulphate.

**Carbon plant:**

Location: Palsva  
 Capacity: 10,000 tons per annum

It will produce:

- water pumps;
- small electric motors;
- carbon tools;
- diesel engines up to 27 hp;
- small compressors and presses.

**Small chemical plant:**

Location: Lub  
 Capacity: 30,000 tons per annum

The products will be used in agriculture, industry, mining and in other construction.

### INDUSTRIAL POLICY:

Location: Tabora

Capacity: First stage capacity 70,000 tons  
At a later stage, all tonnage will be  
manufactured in bags.

The private sector will participate in the following  
industries:

- tanning, cereals, sugar, dried fruits, tanning,  
textile printing, vegetable oils, alcoholic and  
non-alcoholic beverages, cattle and poultry  
feeds;
- carpets, handicrafts, textiles;
- timber, paper, molting mills, cement  
works, artificial fibres, chemicals,  
rubber, mineral fertilizer plants, food  
canning, glass and metal works, dyes,  
electronics, filters, biopiles and  
celluloses, vehicles, compressors, engines,  
electromotors, weighing equipment, pipes, etc.

### CRITERIA FOR INDUSTRIAL PROMOTION AND LOCATION:

The achievement of a 10% growth target is based upon the  
selection of industrial fields according to the following  
criteria:

- the utilization of domestic raw materials  
such as iron, hydroelectricity, agricultural  
raw materials and minerals;
- the supply of intermediate materials and  
capital goods such as chemicals, fertilizers,  
textiles, tools and machinery;
- the provision of a maximum possible employment  
in handicrafts, food processing, industries  
connected with heavy industries, metal works  
and the timber industry;
- the production for domestic consumption;
- the production for export purposes.

In connection with the location of new industries, the  
following criteria will be borne in mind:

- wherever possible, industries will be  
established outside the urban areas;
- care will be taken that water consumption  
by new industries will not damage the  
agricultural production in that area;
- priority will be given to those industries  
conforming to the needs of the area  
concerned.

To encourage industry location outside Warsaw:

- large industrial estates will be established in certain areas with an adequate infrastructure.
- small industries will also be encouraged in industrial estates.

**RESEARCH AND DEVELOPMENT, FINANCING AND THE PRIVATE SECTOR**

**RESEARCH AND DEVELOPMENT, FINANCING AND THE PRIVATE SECTOR:**

**RESEARCH AND DEVELOPMENT:**

There is an insufficient number of skilled workers, technicians and management experts, including foreign experts.

One point may restrict the redirection of their savings into large-scale enterprises. Without such scale economies, it is practically impossible to have large-scale industries flourishing in the private sector.

Many of the existing firms are inefficient. Further, there is an inadequate profit rate and improper utilization of resources and equipment.

The private sector has not paid sufficient attention to studies in technology and in marketing.

There is an absence of institutions giving information to investors in small-scale industries.

Partly, there are also to improve the quality and to lower prices.

The shortage of capital affects new factories. Further, there are no suitable regulations for granting working capital loans to the private sector. Credit facilities are concentrated in Warsaw.

Investigation is required to define the relationship between labor and management.

**Mining:**

The main problem arises from the lack of data on new mining reserves. An complete country survey exists as yet.

Great risks are involved in investing in exploration ventures.

Private investors are discouraged by the lack of technical assistance.

Credit facilities are inadequate.

Advanced mining techniques are seriously lacking.

Roads, electricity, port facilities and other infrastructural items are inadequate.

Existing regulations for mining operations are complex.



**SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF PAKISTAN: 1970 - 1975**

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

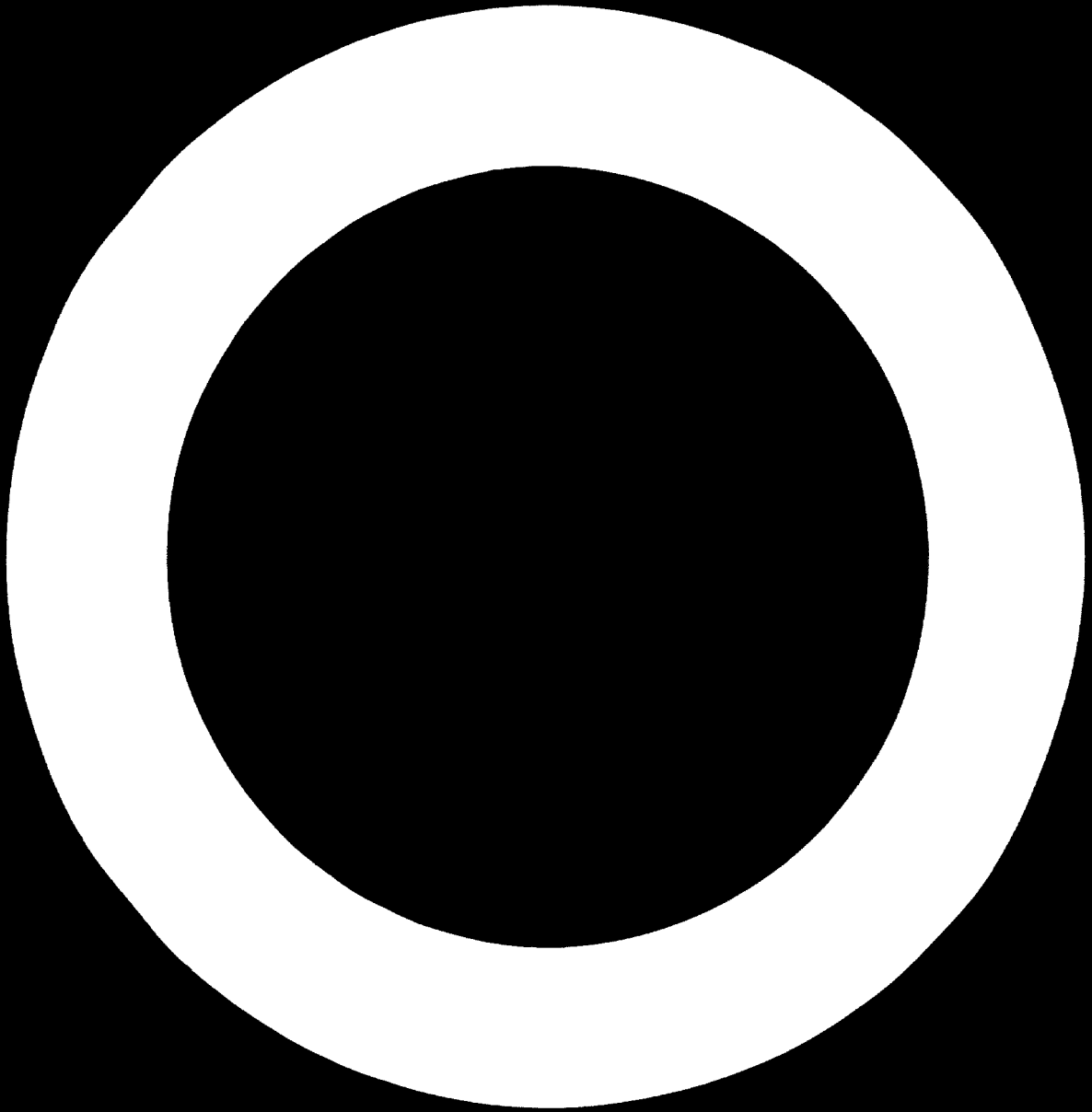
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1. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Pakistan:

Area:

	<u>Million acres</u>		
	<u>East Pakistan</u>	<u>West Pakistan</u>	<u>Total</u>
Total area	20.3	148.7	234.0
Net sown area	20.3	133.4	153.7
Current fallow	1.4	1.7	3.4
Total cultivated area	21.7	135.1	156.8
Forest area	1.1	3.1	4.2
Net area available for cultivation	1.6	41.1	42.7
Other cultivable land (excluding current fallow)	1.3	44.1	45.4
Area not reported	1.2	6.3	7.5

Major cities:

Population as per census 1961

<u>East Pakistan:</u>	
Dacca - Narayanzang	1,67,700
Khuzna	125,000
Chittagong	364,200
<u>West Pakistan:</u>	
Islamabad	50,000
Peshawar	215,700
Rawalpindi	341,200
Lyalpur	425,200
Lahore	1,296,500
Multan	358,200
Ghettta	106,600
Karachi	1,312,600
Hyderabad	434,500

Other data:

Per capita income (annual average)	\$24.0	(1965 market prices)
Number of passenger cars	194,500	(as per 1966)
Number of trucks and buses	52,100	(as per 1966)
Number of telephones	202,000	(as per 1970)
Number of post offices	14,300	(as per 1970)

Exchange rates:

Unit	Rupae equivalent
US dollar	4.768
Pound sterling	11.435
Swiss franc	1.103
French franc	1.957
German mark	1.291
Italian lira (100)	1.761

Population:

126.7 million (1962 estimate) of which 55% in East Pakistan and 45% in West Pakistan.

Distribution (as per 1961)

Age groups	
0 - 5 years	17.6%
5 - 14 years	27.1%
15 - 24 years	18.2%
25 - 34 years	27.3%
35 - 59 years	14.0%
60 and over	6.0%
Total	100.0%

Urban and Rural Population of Pakistan 1950-1970

(million @ U.S.)

	Total	Urban	Rural	Urban
1950	75.0	7.8	71.0	9.6%
1960	96.0	12.6	86.3	12.9%
1965	115.0	16.0	99.0	13.9%
1970	132.3	21.5	110.8	16.3%

The population in the urban area has increased at 6.0% while the population in the rural area at only 2.3%.

The growth rate of the total population is approximately 2.6%.

Labour force, Employment and Unemployment by Sector of Economy

(000)

<u>Sector</u>	<u>1964-1965</u>	<u>1969-1970</u>
Labour force (total)	36,723	42,268
Agriculture, forestry and fishing	28,880	30,162
Other sectors	9,843	12,106
Employed and underemployed <sup>a/</sup> (total)	36,133	41,796
Agriculture, forestry and fishing	28,018	30,092
Mining and manufacturing	3,198	3,884
Construction	491	675
Electricity, gas and water services	50	67
Commerce	1,865	2,274
Transport and communication	689	857
Services	3,222	3,947
Wholly unemployed <sup>aa/</sup> (total)	390	472
Agriculture, forestry and fishing	62	70
Other sectors	328	402

(000 man/years)

Labour force	36,723	42,268
Employment	29,223	34,768
Unemployment (whole and partial)	7,500	7,500
Unemployment as % of labour force	20.4	17.7

<sup>a/</sup> Persons doing some work and looking for more work.

<sup>aa/</sup> Persons not doing any work and looking for work.

Education:

Achievements at the End of the First, Second and Third Plan  
(number)

<u>Sector/Item</u>	<u>Performance</u>		<u>Bench-mark</u>
	<u>1960</u>	<u>1965</u>	<u>1970</u>
<b>Technical education:</b>			
Vocational institutions	-	52	75
Admission capacity to vocational institutions	-	3,700	7,680
Annual output of matric. techn. Polytechnics (including Swedish-Pak institutes)	-	3,050	5,150
Admission capacity of technician courses in polytechnics	6	25	41
Annual output of diploma level technicians	1,249	3,704	7,400
	630	1,644	3,800
<b>Engineering:</b>			
Engineering institutions (including universities of engineering and technology)	4	6	-
Admission capacity of graduate engineers	592	1,601	2,200
Annual output of graduate engineers	424	614	1,153
<b>Universities:</b>			
Universities (general)	6	6	8

Literacy:

20% of the total population are literate. Most of the literate people are in urban areas.

The programme of scholarships made good progress. The number of students increased from 42,000 in 1965 to about 70,000 in 1970. The annual expenditure of scholarships increased from \$4.4 million to \$7.8 million. A very large proportion of additional scholarships was granted to students of science and technical subjects.



1. GNP:

	<u>1965</u>	<u>1970</u>	<u>Average annual increase</u>
Manufacturing GNP/capita (0)	9.0	10.3	2.7%
Total GNP/capita (0)	78.0	86.0	1.7%
Population (000)	115,000	123,100	2.8%
Manufacturing GNP (million \$ U.S.)	1,039.0	1,367.0	6.8%
Total GNP (million \$ U.S.)	9,019.0	11,300.0	5.7%
Manufacturing % of total GNP	11.4	12.0	

0/ at factor costs of 1970-1960.

GNP Structure  
(million \$ U.S.)

<u>Sector</u>	<u>Value added as a % of GNP in</u>		<u>Growth rate in value added</u>
	<u>1960-1950</u>	<u>1960-1970</u>	
Agriculture	60%	44%	2.6%
Manufacturing	6%	12%	7.7%
Construction	1%	5%	13.0%
Others	33%	39%	4.7%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>4.1%</b>

Sectoral and regional growth rates:

Third Plan Period

(at 1959-1960 prices)

Agriculture	4.5%
Manufacturing	6.7%
(large scale)	(8.0%)
small scale)	(2.0%)
Others	6.3%
Total GNP	5.7%
GNP of East Pakistan	4.1%
GNP of West Pakistan	6.7%

The GNP growth rate of 5.7% achieved in the Third Plan was backed by a growth rate of 4.5% in the largest sector of the economy, namely agriculture.

Public Investments

(million \$ U.S.)

	1955	1959
Fixed investments	1,646	2,026
Change in stocks	170	909
Total gross investment	1,816	2,935
GNP at market prices	10,200	16,000
Gross investment of GNP in %	18.3	18.9

Private Investments

(million \$ U.S.)

	1955	1959
Fixed investments	801	909
in % of GNP	8.6	5.5

**Statement of Income for the Year Ended December 31, 1957-1958**

1957-1958 - Current      1958-1959 - Current      1959-1960 - Current

	1957-1958 - Current	1958-1959 - Current	1959-1960 - Current	1960-1961 - Current	1961-1962 - Current	1962-1963 - Current	1963-1964 - Current	1964-1965 - Current	1965-1966 - Current	1966-1967 - Current	1967-1968 - Current
Income	4,528	4,572	4,711	4,800	4,888	4,976	5,064	5,152	5,240	5,328	5,416
Expenses	1,324	11,666	11,166	10,666	10,166	9,666	9,166	8,666	8,166	7,666	7,166
Income before taxes	3,204	6,906	3,545	4,134	4,722	5,310	5,898	6,486	7,074	7,662	8,250
Taxes	639	-	639	-	-	-	-	-	-	-	-
Income after taxes	2,565	6,906	2,906	4,134	4,722	5,310	5,898	6,486	7,074	7,662	8,250
Income before taxes	16,571	26,666	26,666	26,666	26,666	26,666	26,666	26,666	26,666	26,666	26,666
Taxes	1,197	2,736	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848
Income after taxes	15,374	23,930	24,818	24,818	24,818	24,818	24,818	24,818	24,818	24,818	24,818

(Dollars)

Income	15	2,128	2,134	15	2,134	2,134	2,134	2,134	2,134	2,134	2,134
Taxes	5,328	-	5,328	5,328	5,328	5,328	5,328	5,328	5,328	5,328	5,328
Income after taxes	10	7,062	7,062	10	7,062	7,062	7,062	7,062	7,062	7,062	7,062
Income before taxes	1,208	481	365	211	274	337	400	463	526	589	652
Taxes	500	176	500	707	148	211	274	337	400	463	526
Income after taxes	708	305	165	144	126	126	126	126	126	126	126
Income before taxes	1,197	2,736	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848
Taxes	1,197	2,736	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848

/s/ Dan 1957-1958



**Summary of Expenditures**

Year	1970-1971		1971-1972	1972-1973		
	Actual	Estimated		Actual	Estimated	
1970-1971	8.2	3.9	10.0	48.9	6.0	1.3
1971-1972	9.5	3.9	15.0	97.0	5.6	1.7
1972-1973	13.0	7.1	29.9	70.0	7.0	3.0

✓ This is the report to 1972-1973 which is more representative of the actual report during 1972-1973.

Statement of Assets and Liabilities

Category	1934	1935	1936	1937	1938	1939	1940	1941	1942
Assets									
Cash	100	100	100	100	100	100	100	100	100
Accounts Receivable	200	200	200	200	200	200	200	200	200
Inventory	300	300	300	300	300	300	300	300	300
Fixed Assets	400	400	400	400	400	400	400	400	400
Total Assets	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Liabilities									
Accounts Payable	100	100	100	100	100	100	100	100	100
Long-Term Debt	200	200	200	200	200	200	200	200	200
Equity	700	700	700	700	700	700	700	700	700
Total Liabilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

By the Board of Directors

**4. International Accounts**

**Trade:**

1955 - \$1,840 million  
 1970 - \$2,620 million  
 Average annual increase 6.2%

**Direct (consolidated value):**

1953 - 100  
 1954-1970 - 131

**SE:**

1955 - \$ 9,819 million (at 1959 prices) (at 1959 prices)  
 1970 - \$11,340 million (at 1959 prices) (at 1959 prices)  
 Average annual increase 5.7%

**Balance of Payments**

(million \$ U.S.)

	1955	1970	Total 1955-1970
Current account payments			
Exports	871	1,120	2,191
Imports	283	355	1,500
Net earnings	58	75	133
<b>Total</b>	<b>1,209</b>	<b>1,550</b>	<b>2,759</b>
Capital account financing			
Net savings	717	800	1,517
Foreign investments	98	604	702
Changes in reserves, credits and debts	-60	30	-30
<b>Total</b>	<b>1,209</b>	<b>1,550</b>	<b>2,759</b>

**Estimated Contributions of the Public and Private Sectors**

(million \$ U.S.)

Year 1970	Public sector		Private sector	
	Billions \$ U.S. of the total	of the total	Billions \$ U.S. of the total	of the total
First plan (1955-1960)	1,075	65%	700	35%
Second plan (1960-1965)	3,073	50%	2,875	40%
Third plan (1965-1970)	5,207	50%	4,513	40%

**General Government Expenditures - 1964**

(in millions of dollars)

	1963		1964	
	Actual	Estimated	Actual	Estimated
Public works*	1,475	2,257	2,372	2,875
Private works	639	2,225	1,195	1,925
Total	2,114	4,482	3,567	4,800
Proportion to GNP	3.1	6.9	5.5	6.9

\* including expenditures on public works made by State, Federal, and local governments.

**Public Works Expenditures - 1964**

Sector	1964		
	Actual	Estimated	Estimated
Agriculture	11.0%	10.6%	11.2%
Industry	14.7%	7.7%	9.2%
Rails and motorcars	2.6%	1.8%	2.6%
Water	19.8%	31.3%	25.7%
Power	10.7%	10.1%	10.6%
Transport and communications	23.0%	17.6%	17.1%
Physical planning and housing	10.0%	9.5%	6.9%
Education*	5.4%	5.2%	5.0%
Health	2.1%	2.2%	2.4%
Rural planning	-	0.1%	1.0%
Social welfare	-	0.2%	0.2%
Research	0.1%	0.2%	0.2%
Work programs	-	1.7%	4.9%
Total	100.0%	100.0%	100.0%

\* including public administration.



**Summary of the Public Sector's Investment Programme**

(in million U.S.)

	Fixed plan		Total plan	
	Actual	Revised	Revised	Additional
Private enterprise	651	1,405	280	1,125
By capital receipts	619	700	298	-
Additional investment	332	635	1,389	+739
Deficit financing	23	50	44	20
<b>Total domestic resources</b>	<b>1,415</b>	<b>3,485</b>	<b>2,691</b>	<b>-1,794</b>
Foreign resources	1,433	2,410	2,160	-220
<b>Total resources</b>	<b>2,848</b>	<b>6,295</b>	<b>4,851</b>	<b>-1,732</b>

- The deficit financing level indicated in the plan was \$915 million. An unaccountable gap of \$210 million was left in the financing picture. This is shown here as a likely additional deficit financing.

**5. Industrial products and industries - some manufacturing industries:**

The stages of industrialization have passed from the initial concentration on cotton and jute textiles to sugar, vegetable glass and cement and later on to more sophisticated chemical and engineering industries. By now, Pakistan has a substantial capacity in textiles, vegetable glass, sugar, cement, paper, fertilizers and other chemicals, and some progress has been made in the engineering industries. However, the country has yet to develop management and technical personnel necessary to conduct industrial operations in a modern scientific manner.

Selected Industrial Production

<u>Product</u>	<u>Unit</u>	<u>1959-1962</u>	<u>1969-1970<sup>a</sup></u>
Cotton textiles:			
Yarn	Million lbs.	403	720
Cloth	Million yds.	606	810
Jute textiles	000 tons	256	600
Paper	000 tons	39	80
Cigarettes	000 million	9	40
Vegetable oils	000 tons	30	105
Sugar	000 tons	144	460 <sup>oo</sup>
Tea	Million lbs.	51	65
Fertilizers <sup>ooo</sup>	000 tons	51	370
Soda ash	000 tons	27	45
Caustic soda	000 tons	6	30
Cement	000 tons	1,027	2,600

<sup>a</sup>/ Extrapolation of a 9-month output.

<sup>oo</sup>/ 1968-1969.

<sup>ooo</sup>/ Excludes ammonium nitrate.

6. Industry - related resources and activities:

Timber:

The existing forest area is inadequate to meet the growing requirements for timber and fire-wood. The annual imports of wood and wood products have increased from about \$2.4 million in 1965 to about \$27.3 million in recent years.

The Third Plan envisaged an extraction of 45,000 tons of timber by 1970 from the Chittagong Hill tract. As the equipment during the first years was not available, progress remains slow. Up to 1969, 28,000 tons of timber were extracted against the target of 30,000 tons. In West Pakistan, the provision for a timber extraction was made for the Dir and Azad Kashmir forests.

**Estimated Production of Timber and Pulpwood from  
Plantations**

	Million cubic feet		Increase
	1964-1965	1969-1970	
<b>Timber</b>			
East Pakistan	20.75 <sup>a</sup>	31.20 <sup>oo</sup>	29%
West Pakistan	13.20	15.00	14%
<b>Pulpwood</b>			
East Pakistan	30.50	40.00	33%
West Pakistan	20.55	35.00	41%

<sup>a</sup>/ for 1965.

<sup>oo</sup>/ for 1970.

**Forest Plant Resources and Likely Achievements of Forest  
Development**

Item	Unit	Forest	Likely achievement by 1969-1970
Irrigated plantation	000 acres	82.0	17.5
Riverbank and hill plantation	000 acres	275.0	79.0
Canal-side plantation	000 miles	15.0	7.0
Roadside plantation	000 gumma miles 000 miles	45.0 3.8	17.0 2.0
Railway side plantation	000 gumma miles 000 miles	12.6 6.0	1.0 ..

**Development of Production**

The large increase in the output of crops was due to:

- The high yielding varieties of wheat, rice and maize which provided the basis for the gain in the production;
- the irrigation in West Pakistan which increased crop yield as a result of equal water supplies and
- the installation of tube wells in Pakistan, the number of low lift pumps increased significantly
- Government promotion and subsidies for fertilizer supply;
- measures for protection against diseases through aerial and ground applications.

The development programme in the energy industry progressed rather slowly; only 4% of the total allocation of \$41 million was expected to be utilized. This was mainly due to the delay in the formulation and construction of schemes, lack of staff, foreign exchange and financial resources.

**Summary of Expenditure, Pakistan, 1965-66**

Expenditure, Pakistan	1965	1966	Total
	(\$ million)	(\$ million)	(\$ million)
Oil	10.00	9.00	19.00
Road	9.00	8.00	17.00
Loan	(-)	25.00	25.00
Water and sewer	10.00	10.00	20.00
Total	-	52.00	52.00

**Summary and Status**

**Third Plan's Mineral Resources and Prospects Estimated**

	Unit	1950-1951	1952-1953	Estimated substantive
Natural gas	100 million cubic feet	61	200	13
Coal	100 tons	1,237	3,000	1,500
Gold	100 tons	-	-	-
Rock-salt	100 tons	217	600	156
Uranium	100 tons	15	50	60
Wolfram	100 tons	25	50	100
Copper	100 tons	143	600	200
Iron-ore	100 tons	1,400	7,000	5,000
Graphite	100 tons	-	-	15
Flux	100 tons	-	-	4
White pottery clay	100 tons	-	-	3
Fire-clay	100 tons	7	-	21
Crude oil	100 million gal. per day	4	200	200

The discovery of oil fields at the Pit, Hot Spring, etc. are the most significant developments of the Third Plan; the oil fields of Pit and Hot produce 2,000 barrels a day.

Substantive of the geological survey of Pakistan during the Third Plan:

- preparation of a mineral map;
- preparation of a fuel map;
- geological mapping;
- exploration of minerals; a quality iron ore deposit with estimated reserves of 3 million tons has been discovered; the location of the bright prospects for finding copper and uranium has been discovered; the feasibility of mining limestone and fluorspar near Rawalpine has been proved, as well as other deposits;
- water resources and engineering geology;
- structural studies;
- geological surveys.

The status of reserves of mineral deposits at present is as follows:

<b>RESERVES</b>	
Barite	Over 1,000,000 tons
Bauxite	Over 24,000 tons
Chalcite	Over 3,000,000 tons
Clay shale	Over 613,000 million tons
Granite	Over 3,000,000 tons
Gneiss	Over 1,000,000 tons
Phosphate	Over 1,500 tons
Shale	Over 15,000 tons
Shale-silt	Over 17,000,000 tons
Siltstone	Recently large deposits
Sandstone	Very large deposits
System (shale)	in situ
Tuff	Over 500,000,000 tons
Trachyte	in situ
Sandstone	Over 30,000 tons
Siltstone	Very large deposits
Sandstone	Very large deposits
Sandstone	Over 600,000 tons
Siltstone	Over 125,000 tons
Sandstone	Over 11,500,000 tons

Natural gas reserves have been estimated at 25,000,000 million cubic feet. 9 fields are located in West Virginia and 11 in East Virginia. 33 of the total reserves of natural gas have been accounted for.

**Summary:**

**Advances of expansion of power facilities in East Pakistan during the plan:**

- The installed capacity increased from 1,300 MW to 1,900 MW.
- The total generation increased from 3,610 million kWh to 6,700 million kWh including the captive industrial generation.
- The per capita generation rose from 70 units to 112 units.
- The length of the transmission and distribution lines of 11 kv and above was extended from 13,500 miles to 47,000 miles.
- The number of consumers increased from 1.84 million to 1.47 million.

**Expansion in East Pakistan:**

- The total generating capacity more than doubled from 300 MW to 670 MW including 120 MW of the captive industrial capacity.
- The length of the transmission and distribution lines expanded from 2,400 miles to 6,312 miles.
- The number of consumers increased from 140,000 to 200,000.
- The per capita generation increased from 13.2 units to 19.2 units.

**Summary:**

The substantial short-coming in public investment, compared with the targets particularly in East Pakistan and Central Government projects and programmes, was mainly due to a lack in foreign exchange resources.

The railway traffic in East Pakistan remained more or less stagnant. It was expected to reach 6.6 billion ton-miles and 7.4 billion passenger-miles by 1976, but only 5.0 billion ton-miles and 6.5 billion passenger-miles are likely to be recorded.

The road traffic in East Pakistan will have increased by 60% to 90% in 1977-1980 as at least half of the total passenger-miles and nearly half of the total freight ton-miles have been transported by road.

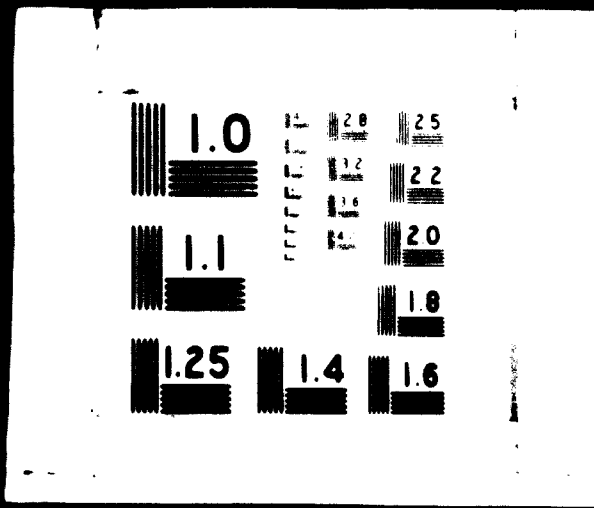


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The road traffic also increased in East Pakistan.

The air traffic in West Pakistan was estimated at 25,421 million ton-miles and 234,000 million passenger-miles for 1970; these figures are likely to be attained. In East Pakistan, 3,905 million ton-miles and 37,445 million passenger-miles are likely to be attained in 1970.

Main exports:

Major Exports Not Covered by The Bonus Scheme

(million \$ U.S.)

	<u>1965</u>	<u>1970</u>
Raw jute	181	164
Raw cotton	58	45
Hides and skins	65	1
Total	<u>304</u>	<u>210</u>
% of total merchandise exports	53.9	30.8

The annual increase in exports will be about 7% which is in line with the Second Plan performance but lower than the Third Plan target.

Merchandise Import Estimates for 1969-1970 (million \$ U.S.):

Food-grains	76
Other agricultural products	35
Processed food and beverages	55
Other consumer goods	70
Fertilisers	58
Chemicals	109
Fuels and minerals	96
Steel	156
Machinery	370
Other engineering goods	<u>89</u>
Total	1,114

**7. Overall economic development strategy and policy:**

The basic objectives of the national economic policy were:

- to seek a maximum possible economic growth through encouragement of the private enterprise backed by the provision of the social, physical and institutional infrastructure of the Government;
- to realise the equitable distribution of incomes.

The characteristics of the economic development from 1960 to 1970 were:

- the commitment to planning for development;
- the end of stagnation in the agricultural output and in exports;
- the increase in foreign assistance and investment expenditures;
- the diversification of the industrial output and exports;
- the growth rate in the production exceeded that in the population.

At the end of the Third Plan period from 1965 to 1970, the Government decided to reset priorities because of the emergence of acute problems especially during this period:

- Minimum wages, substantially above prevailing wage rates, were fixed for the organised private sector.
- The monopoly and cartel laws were framed.
- The expenditure on social sectors was raised sharply.

**8. Regional co-operation:**

The Regional Co-operation for Development (RCD) was created in July 1964; its main object is not the economic integration but rather the preferential treatment and co-operation. Member countries are Turkey, Iran and Pakistan.

The RCD comprises a total of 180 million people with a GDP of approximately \$27,000 million.

The member countries co-operate in the fields of:

Institutional arrangements:

A three-tier organisational set up was established composed of the Council of Ministers as the highest decision-making body of the RCD, the Regional Planning Council composed of the chiefs of the planning organization of each country and the permanent committees each consisting of representatives of member governments.

A permanent secretariat was established in Tsheran to co-ordinate the RCD activities, to pursue the implementation of decisions and to provide secretarial services to the above.

Harmonization of plans:

The member countries agreed upon the co-ordination of development plans and a joint plan in the field of the RCD transport and communications system.

Joint purpose enterprises:

53 joint purpose enterprises have been approved; 13 of them are now in operation:

- methanol industry between Iran and Pakistan located in Pakistan;
- urea formaldehyde project between Iran and Pakistan located in Pakistan;
- bank notes and security paper project amongst Iran, Pakistan and Turkey located in Pakistan;
- machine tools between Pakistan and Turkey located in Pakistan;
- gear boxes and differential systems between Pakistan and Turkey located in Pakistan;
- glycerine between Turkey and Iran located in Iran;
- glycerine between Pakistan and Turkey located in Pakistan;
- borax and boric acid amongst Iran, Pakistan and Turkey located in Turkey;
- machinery for tea industry between Pakistan and Turkey located in Turkey;
- polystyrene project between Iran and Turkey located in Turkey;
- locomotives diesel engines project amongst Iran, Pakistan and Turkey located in Turkey;
- centrifugal and special filters between Pakistan and Turkey located in Turkey;
- tungsten carbide between Pakistan and Turkey located in Turkey.

The following joint purpose enterprises are under construction and will start their operation at the end of 1970:

- ball-bearings project between Iran, Pakistan and Turkey located in Pakistan;
- RCD jute mill between Iran, Pakistan and Turkey located in Pakistan;
- shock-absorbers between Pakistan and Turkey located in Pakistan;
- organic pigment dyes project between Pakistan and Turkey located in Turkey;
- basic chrome dyes project between Pakistan and Turkey located in Turkey;
- diesel engines required for use in the marine-craft, tractors, earth-moving equipment and light and heavy trucks and buses project between Iran, Turkey and Pakistan and located in Iran, Pakistan and Turkey;
- ultramarine project between Pakistan and Turkey located in Turkey.

Projects in heavy engineering, electrical goods, automobile industry and shipbuilding are being undertaken.

A special committee has been set up in Pakistan to watch the progress of the approved joint purpose enterprises.

Trade:

During the last 6 years several measures have been adopted for facilitating the expansion of the intraregional trade such as

- the establishment of the RCD Chamber of Commerce and Industry;
- the establishment of the RCD Union for multilateral payment arrangements;
- the RCD Trade Agreement, etc.

Insurance:

The RCD insurance centre has been established at Karachi. In order to provide reinsurance facilities and limit the outflow of foreign exchange from the region, regional reinsurance pools have been formed.

Banking:

The establishment of a regional and commercial development has been proposed.

Transport and communications:

Some of the important developments in the field of:

Post and telecommunications:

The surface postal rates for letters of all categories, telegraph rates and rates for telephone calls between member countries have been substantially reduced.

Member countries have opened post and telecommunication offices in the border areas.

The simple operator trunk dialling among the RCD countries has been introduced on an experimental basis.

Iran, Turkey and Pakistan are preparing plans for the utilisation of satellite communication facilities.

Road transportation:

Special importance was given to the completion of a RCD highway linking Karachi-Teheran-Ankara. The total length is about 5,270 km, the Pakistanian portion amounts to 1,310 km, that of Iran to 2,700 km and that of Turkey to 1,260 km.

The railway link between Iran and Pakistan will be extended.

Shipping:

A RCD shipping service has been in operation on the basis of pooling vessels of member countries. A joint shipping company is under consideration.

Air transportation:

The project of joint airlines is under consideration.

Technical co-operation and public administration:

In the last five years 28 seminars on various economic, social and cultural subjects were held.

In addition to the exchange of experts and trainees, joint courses in public administration and management have been held regularly since 1967 at the Pakistanian Administrative Staff College, Lahore.

The RCD technical co-operation programme will be extended in the fields of agriculture, family planning, water resources development and scientific research.

Cultural co-operation:

In 1966, the RCD cultural institute was set up in Teheran with branches in Istanbul, Dacca and Lahore. The institute has brought out several publications on history, culture and civilisation of the region, etc.

The news agencies, radio and television organizations of the member countries developed direct contacts.

The Indonesia - Pakistan Economic and Cultural Co-operation Organisation (IPECC) was established in August 1965.

A three-tier organizational set up composed of the Ministerial Council, the Economic Council and Technical Committees on Joint Ventures, Technical and Cultural Co-operation, Information Media, Communications and Trade was formed.

A small secretariat was also created at Djakarta to service the Ministerial Council and other subsidiary bodies and to co-ordinate the implementation of IPECC decisions.

A brief review of the IPECC activities and future plans:

Joint ventures are possible in the fields of:

- jute industry;
- fishing, processing and export;
- rubber processing;
- metal processing;
- building of small ships and river-crafts;
- cotton industry;
- timber extraction and logging;
- exploration and exploitation of oil in Indonesia;
- manufacture of aircrafts for transport.

Trade arrangements were signed for the exchange of commodities with a value of \$20 million and for the grant of a credit of \$10 million by Pakistan to Indonesia.

Air transport and shipping services have been facilitated.

Technical and cultural exchange programmes are under consideration.

9. Systems for planning and plan implementation:

10. Problems encountered through the previous plan period:

The main problems encountered during the Third Plan period were:

- a tremendous squeeze on capital resources;
- foreign aid flows were frozen at the 1965 level;
- that the debt servicing burden mounted;
- defence expenditures doubled;
- investment and saving rates declined;
- industrial imports were cut sharply;
- floods in East Pakistan and droughts in West Pakistan in 1966 and 1967 led to food-grain shortages;
- price increases caused a fall in the real wages;
- the disparity in the per capita income of East and West Pakistan increased, since the agricultural break through was limited to West Pakistan;
- a high rate of unemployment.

These problems inevitably led to the evolution of a new development strategy which has been initiated during the final fifteen months of the Third Plan.



II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1975

1. General goals and objectives:

(1) Planned growth:

	<u>1970</u>	<u>1975</u>	<u>Average annual increase</u>
Manufacturing GNP/capita (\$)	10.3	14.7	7.4%
Total GNP/capita (\$)	125.0	152.0	4.1%
Population (000)	132,300	151,500	2.8%
Manufacturing GNP* (million \$ U.S.)	1,367.0	2,221.6	10.2%
Total GNP** (million \$ U.S.)	16,438.0	22,963.0	6.5%
Manufacturing % of the total GNP	12.0	9.7	
Total consumption (million \$ U.S.)			
Private	13,641.0	18,263.0	6.0%
Public	1,259.0	1,763.0	7.0%
Gross domestic savings (million \$ U.S.)	1,597.0	2,853.0	12.3%
Total investment (million \$ U.S.)	2,225.0	3,547.0	9.7%
Exports (million \$ U.S.)	892.0	1,341.0	8.4%
Imports (million \$ U.S.)	1,428.0	2,007.0	6.0%

\* / at current market prices.

\*\* / at factor costs 1959-1960.

Average Annual Growth of GNP

East Pakistan	7.5%
West Pakistan	5.5%
East and West Pakistan	6.5%

(ii) Other objectives:

- to set up heavy industries;
- to produce and market the essential consumer goods and services at stable prices;
- to raise productivity;
- to provide maximum employment opportunities;
- to reduce the regional disparity in the per capita income;
- to make the economy increasingly self-reliant in most essential fields: capital goods, defence-oriented industries;
- to increase the per capita consumption of food-grains through an increased production;
- to increase exports at 8.5% per annum;
- to obtain a more equitable income distribution through the prevention of a concentration in industrial wealth;
- to reduce dependence on foreign assistance;
- to increase the power generation capacity;
- to bring television programmes to 90% of the population;
- to undertake a major flood control programme;
- to make a decisive change in the education system;
- to extend family planning and to protect the population from malaria and smallpox;
- to build half a million houses for low income groups.

2. Strategy and policy:

(i) General:

The problems and prospects of industrialisation have been the object of several studies; the World Bank undertook a special mission to evaluate the industrial structure and policies.

As a result, a major effort will be made to fully utilise the existing capacity and to stress the production of engineering and chemical goods.

Emphasis will be placed on improving the quality of traditional exports and on producing finished items with a higher component of domestic value added.

Studies indicate that Pakistan may have a comparative advantage in simple mechanical, electrical and electronic industries.

A major programme of import-substitution will be an integral part of the industrial strategy.

The civil sector must cater for the requirements for defense purposes; this will be a hallmark of the strategy for future industrialisation.

The petroleum and petrochemical industries will be given a considerable boost.

A co-ordinated engineering industry will be created during the plan period.

The Government will pay more attention to the co-ordination of different processes, product standardisation, quality control, etc.

The new strategy will require a considerable improvement in efficiency.

The Annual Development Programme for public sector investments and for the industrial investment schedules in the private sector will set out the details for each subsector. An annual review will be carried out.

(ii) Manpower and productivity:

Priority will be increasingly given to raising the employment level by laying emphasis on employment-creating sectors and on a labour-intensive technology.

Employment  
(millions of persons)

	<u>1969-1970</u> (est.)	<u>1974-1975</u> (est.)
Labour force	42.3	48.8
Employed and underemployed of which:	41.8	48.2
Agriculture	30.1	33.6
Manufacturing	3.9	4.8
Others	7.8	9.8

Technical Education

	<u>1969-1970</u>	<u>1974-1975</u>
Vocational institutions	75	280
Vocational admission capacity	7,680	47,000
Annual output of matriculated technicians	5,150	30,000
Polytechnic (including Swedish Pak institutes)	41	50
Admission capacity of technician courses in polytechnics	7,400	15,000
Annual output of diploma level technicians	3,800	8,000

Engineering

	<u>1969-1970</u>	<u>1974-1975</u>
Institutions (including universities of engineering and technology)	6	11
Admission capacity of graduate engineers	2,280	3,300
Annual output of graduate engineers	1,353	1,650

In order to remove the existing inadequacies of manpower planning, it is necessary

- to formulate manpower policies concerned with the recruitment, training, use and conservation of manpower resources in co-operation with major agencies;
- to produce short and long-range operational programmes;
- to prepare manpower plans at national and provincial levels;
- to undertake a continuous review of the manpower situation;
- to develop basic data and statistics for manpower planning and to promote research work.

Manpower planning is an across the board responsibility of the Government.

Family planning envisaged through the plan period is relatively moderate in scale. However, expenditures on this will be considerably increased.

The education system will be made more functional, partly by specializing it according to manpower requirements. This will increase the employment opportunities and productivity of pupils leaving school.

A formal in-service training is only organized in a moderate scale; improvements will be made in the labour services, health and agricultural programmes.

A national accounts academy will be established at Karachi to train officers in various accounts services, to conduct accounts research and to select and sponsor candidates for overseas training.

A computer service bureau training centre will be established to identify areas suitable for computerisation in Government departments and semi-autonomous agencies and will prepare a plan for computerisation in the public sector.

For a higher general level of productivity, the following institutional framework is recommended:

- A high-level national productivity council should be set up under the Central Government to serve as a liaison agency between the Government and business and should advise the Government on various policy and administrative measures needed for raising the productivity at the national level.
- Regional productivity centres should be established in both parts of the country to deal with productivity problems in their respective regions.
- Productivity centres should also be established for branches of industry to deal with specific problems of productivity faced by these industries.

(iii) Investment and capacity utilisation:

Public Investments

(million \$ U.S.)

	<u>Total</u> <u>1970-1975</u>	<u>Total</u>
Agriculture	1,405	13.7%
Industry	927	9.0%
Fuels and minerals	121	1.2%
Water	2,125	20.7%
Power	1,226	11.9%
Transport and communications	1,659	16.0%
Physical planning and housing	797	7.7%
Education	769	7.6%
Health	513	5.0%
Family planning	145	1.5%
Social welfare	44	0.4%
Manpower	29	0.3%
Public administration	8	-
Work programme	514	5.0%
Total	<u>10,285</u>	<u>100.0%</u>

Private Investments

(million \$ U.S.)

	<u>1970</u>	<u>1975</u>	<u>Total 1970-1975</u>	<u>Average annual growth</u>
Agriculture	115	168	714	7.8%
Manufacturing, mining and quarrying	382	493	2,309	5.0%
Construction, gas and electricity	52	73	315	7.0%
Transport and communications	105	189	735	12.5%
Dwellings	146	189	840	5.2%
Other services	94	126	546	6.0%
<b>Total</b>	<b>903</b>	<b>1,238</b>	<b>5,457</b>	<b>6.5%</b>

Sources of Finance - Public Sector 1970-1975

(million \$ U.S.)

Revenue surplus	3,054
Net capital receipts	1,081
Deficit financing	735
<b>Total domestic resources</b>	<b>4,870</b>
Foreign resources	3,778
<b>Total resources</b>	<b>8,648</b>
 Gap for the programme	 1,637

A domestic marginal savings rate of 20% is required through the plan period, as compared with approximately 10% during the 1965-1970 plan.

(iv) Interconnections between growth factors:

	<u>1974-1975</u>	<u>Fourth plan period (average)</u>
Gross foreign assistance	\$881.6 million 38.4% of GNP	n.a.
Gross domestic savings	12.5% of GNP	11.4% of GNP
Average marginal savings rate	n.a.	19.8%
Gross domestic investment	15.5% of GNP	15.0% of GNP
Export-import ratio	0.658	n.a.

3. Data bases and projections:

In the past, progress has been made in strengthening the statistical services. Deficiencies still exist at the Central and Provincial levels. The individual statistical series are not related to a well-organized system of national accounts.

Certain recommendations made on this behalf by the National Income Commission in 1965 and of the recent World Bank Statistical Mission should be implemented during the Fourth Plan.

The major fields to be given attention during the plan are:

- national accounts;
- censuses and surveys;
- research and development;
- training;
- administrative services and data processing.

Another reproduction unit is to be provided in the Central Statistical Office and two national institutes of statistical research are to be established in both parts of the country. An even more pressing need is the strengthening of existing provincial statistical bureaus and the creation of statistical units in the new provinces of West Pakistan.



4. Planned growth of industrial sectors:

(1) Planned growth of manufacturing sectors:

Manufacturing in East and West Pakistan

<u>Industries/item</u>	<u>Unit</u>	<u>Bench-marks</u>	<u>Targets</u>	<u>Increase</u>
		<u>1969-1970</u>	<u>1969-1975</u>	<u>over</u> <u>1969-1970</u>
<b>Food manufacturing:</b>				
White sugar	000 tons	730	1,000	37%
Vegetable ghee	000 tons	160	300	88%
Cigarettes	000 million pcs.	40	80	100%
Tea	Million lbs.	68	90	32%
<b>Manufacture of textiles:</b>				
Cotton yarn	Million lbs.	700	1,100	57%
Jute goods (Hessian/sacking)	000 tons	545	1,030	89%
Broad-loom jute products	000 tons	55	210	282%
<b>Paper and board:</b>				
Writing and printing paper	000 tons	61	200	228%
Boards of all kind	000 tons	64	150	134%
Newsprints and mechanical papers	000 tons	50	75	50%
Pulp	000 tons	-	30	-
<b>Chemical industries:</b>				
Fertilizers (in terms of nutrient)	000 tons	195	1,425	631%
Soda ash	000 tons	70	200	186%
Caustic soda	000 tons	35	180	243%
Sulphuric acid	000 tons	100	1,000	900%
Petrochemicals	000 tons	10	170	1,600%
<b>Non-metallic minerals:</b>				
Cement	000 tons	3,206	7,300	122%
<b>Basic metals:</b>				
Steel	Do	90	750	733%
<b>Machinery and equipment:</b>				
Machinery other than the electrical machinery	Million \$ U.S.	207	62.1	183%
Electrical machinery, apparatus, appliances	Million \$ U.S.	402	84.4	148%
Transport equipment	Million \$ U.S.	466	97.8	147%

\*/ Includes the captive capacity.

**Investment in the Government-Financed Sector DURING the  
1960-1961-1974**  
(million \$ U.S.)

<u>Industry Group</u>	Government Investments		
	<u>East</u> <u>Publication</u>	<u>West</u> <u>Publication</u>	<u>Total</u>
Food manufacture	8.4	4.2	12.6
Beverages	-	-	-
Tobacco manufacture	-	-	-
Manufacture of textiles	84.0	-	84.0
Footwear and apparel	-	-	-
Manufacture of wood and cork	-	10.5	10.5
Furniture and fixtures	-	-	-
Paper and paper products	63.0	-	63.0
Printing and publishing	1.0	3.6	4.6
Leather and leather products	1.0	-	1.0
Rubber products	-	-	-
Chemical industries	48.5	16.8	65.3
Products of petroleum, coal and gas	-	5.2	5.2
Petrochemical industries	100.9	-	100.9
Non-metallic mineral products	21.0	10.5	31.5
Basic metal industries	37.8	76.5	114.3
Metal products industries	1.0	16.7	17.7
Machinery except electrical machinery	31.5	16.9	48.4
Electrical machinery apparatus and appliances	40.0	27.3	67.3
Transport equipment	11.4	6.3	17.7
Miscellaneous industries	6.9	7.6	14.5
Industrial estates	10.4	0.7	11.1
Training	2.1	1.1	3.2
Small industries' promotional programs	17.0	15.7	32.7
Scientific and industrial research	15.7	15.7	31.4
<b>Total</b>	<b>620.0</b>	<b>300.4</b>	<b>920.4</b>

Sugar industry:

The target for East Pakistan (250,000 tons) will be achieved through the modernisation of existing mills and by increasing the sugar content of cane. The road network will be improved.

In West Pakistan, production will be largely increased in the private sector.

The per capita consumption will be raised from 10 lbs. to 13 lbs. per year.

Investments for a new capacity, modernisation and a machine replacement are estimated at \$2<sup>5</sup> million.

Edible oils and vegetable ghee:

Efforts will be made to produce refined corn oil to further reduce imports.

An investment of \$1<sup>5</sup> million will be required, half of which in foreign exchange to modernise the edible oil industry. It will also be used for expanding the delinting equipment and solvent extraction plants.

The Small Industries Corporations will sponsor the investment for the improved utilization of cocoanuts and the modernisation of small oil presses.

Tobacco:

Tobacco, flue and air-cured, originates largely in West Pakistan.

The total investment over the period will be \$7.1 million of which \$4.2 million will be the foreign exchange component.

Tees:

The processing and blending capacity through modernisation and capacity. The machinery and the spare parts production will be granted.

\$10 million will be allocated to the tea industry which includes \$5.2 million in foreign exchange.

Cotton textiles:

The per capita consumption will be increased from 11.1 to 15 yards over the period.

The total yarn required for the production of cloth will be 477 million lbs.

Foreign exchange earnings from yarn will be negligible over the period.

Synthetic fibre yarns:

The requirements of synthetic fibres are expected to be 25,000 tons. The installed capacity at the end of the Third Plan is estimated to be 15,000 tons.

Wool:

An additional investment of \$72 million for the period is estimated of which the investment requirement through the EPF is estimated at \$30 million.

Woolen, woollen and hosiery yarns:

For an additional production capacity 800 million with a foreign exchange requirement of \$30 million are provided.

Wool, woolen and hosiery yarns:

For 1976-1977, a production target of 100,000 tons of various kinds of wool has been set.

For an additional capacity 800 million are provided with a foreign exchange requirement of \$30 million.

The production will be increased by means of utilizing the wool waste, waste fibres, stems, combing dust, etc. as raw materials.

Woolen and hosiery yarns:

The investment for a new capacity is estimated at \$30 million with a foreign exchange requirement of \$30 million.

**Leather and leather goods:**

Foreign exchange earnings from the export of raw hides, skins, leather and leather goods and footwear are projected at \$1 billion in 1974-1975.

An investment of \$1.5 billion for large modern export oriented units and \$0.5 billion for small units are envisaged for the plan period.

For teaching and in forming existing technicians and leather goods industries \$1.5 billion is also provided.

**Textiles:**

For teaching and in forming existing technicians and textile goods industries \$1.5 billion is also provided.

Existing units in the private sector will be expanded and new private units will be set up.

**Handloom:**

The investment in the handloom sector will be \$0.5 billion. The government will provide \$0.5 billion for the purchase of raw materials including yarn.

**Handloom:**

The handloom production and production for export will be started during the plan period in the States. The export will amount to about \$0.5 billion.

**Handloom:**

In addition capacity for the production of handloom will be established during the plan.

An investment of about \$0.5 billion will be provided in the sector.

**Electricity Sector:**

An investment for the balancing and modernization of existing refineries is envisaged. Further investments will be required for storage facilities and filling stations.

**Coal Sector:**

A production target of 11.1 million tons of coal has been fixed.

**Transportation, Construction and Civil Supplies:**

The balancing, modernization and expansion of existing facilities will be provided.

The production of ships, automobiles, etc. for indigenous requirements will be envisaged.

**Small Scale Industries:**

Exports of textiles and household equipment manufacturing industries should be more than doubled; the annual growth under the Third Plan was 20.2%.

The quality of agricultural tools and implements shall be improved.

The existing capacities should be fully utilized.

**Handicrafts Industry:**

The country's handicrafts - a important export goods will be reduced from about 10% of present to 15% by the end of the plan.

The additional export requirements of metals for the growth of industries will amount to 200 million.

The standardization and improvement of the quality are expected to meet the competition in exports.

Production capacities will be increased.

**Electronic equipment, radios and television receivers:**

The production of television picture tubes and other components will be expanded.

The production will be co-ordinated for the optimum utilization of capacities.

**Imports:**

The production target for 1974-1975 amounts to \$147 million.

(ii) **Planned growth of electricity:**

**Short-term and Medium-Term in the Power Sector**

Item	Unit	Short-term (1974-1975)		Targets (1974-1975)			
		Total	Production	Total	Production	Production	
Installed capacity	MW	1,311	670	1,924	4,431	1,181	1,151
Total generation	GWHR	1,874	1,874	6,700	16,750	1,750	11,000
Per capita generation	KWH	61	112	112	4	112	112
Transmission and distribution	Million	44,874	6,874	61,870	74,500	16,000	11,000
Villages supplied with electricity	%	1,750	250	1,500	1,500	200*	1,300

\* Does not include villages to be supplied with electricity under the integrated rural development works.

**Structure of the Power Plan Allocation**

(million \$ U.S.)

	Generation	Transmission	Total	Allocation
Generation	100.0	0.0	100.0	100
Transmission	0.0	11.5	11.5	100
Allocation	-	11.5	11.5	100
Total	100.0	11.5	111.5	100
Net program				111.5

iii) Planned growth of mining:

Fuels and Minerals  
Bench-marks and Physical Targets for the  
Fourth Plan 1970-1975

	Unit	Bench-marks			Targets		Total
		East Pakistan	West Pakistan	Total	East Pakistan	West Pakistan	
Coal	000 tons	-	1,300	1,300	-	1,300	1,300
Iron ore	000 tons	-	-	-	-	300	300
Coke-ash	000 tons	-	356	356	-	356	356
Iron waste	000 tons	-	60	60	-	60	60
Fluxes	000 tons	20	175	195	-	220	300
Clay	000 tons	-	250	250	-	250	250
Graphite	000 tons	120	4,800	4,920	1,000	1,000	10,000
Marble	000 tons	-	15	15	-	30	30
Mica	000 tons	-	4	4	-	6	6
White pottery clay	000 tons	5	30	35	15	135	150
Fire-clay	000 tons	5	20	25	10	40	60
Sulphur	000 tons	-	4	4	-	20	20
Nat. resources	000 million of.	10	115	130	210	200	410
Crude oil	Million Imp. gallons	-	200	200	-	350	350

iv) PRIORITY OF SECTORS:

Priority will be assigned to agriculture-oriented industries, especially in East Pakistan the execution of projects like the Ghoreal fertilizer factory, the triple superphosphate plant, the ammonium sulphate plant as part of the petrochemical complex, the Pakistanian diesel plant for low lift pumps and the pesticides project will be accelerated.

The power generation capacity will be significantly increased to provide irrigation water.

In the manufacturing sectors, the increase in production of cotton yarn, of jute and of the sugar mills and paper industry will be given priority as far as the traditional sectors of industry are concerned. Furthermore, special emphasis will be



laid in the production of cement, steel, industrial machinery and transport equipment.

In the mining sector, natural gas, limestone and china-clay are of special importance.

v) Infrastructural problems connected with industry:

Bench-marks and Physical Targets for the Third and Fourth Plan of East and West Pakistan

<u>Description</u>	<u>Unit</u>	<u>Bench-marks for the fourth plan 1969-1970</u>	<u>Targets* for the fourth plan 1974-1975</u>	<u>Increase in 1974-1975 over 1969-1970</u>
<b>Railways:</b>				
Locomotives (D.E. and electric)	Number	625.0	702.0	33.5%
Locomotives (steam)	Number	1,046.0	913.0	(-12.6%)
Passenger carriages and other coaching vehicles	Number	5,492.0	5,692.0 (754.0)	3.6%
Wagons	Number	61,616.0	64,186.0 (5,816.0)	4.1%
<b>Road transport:</b>				
Buses	Number	14,204.0	26,362.0 (7,610.0)	85.6%
Trucks	Number	35,455.0	65,175.0 (14,656.0)	83.8%
High type roads	Miles	14,950.0	18,200.0	21.8%
<b>Communications:</b>				
Telephones	Number (000)	202.5	392.5	93.8%
Post offices	Number	14,300.0	17,300.0	21.0%
Ships	Number	66.0	123.0 (18.0)	86.0%
<b>Civil aviation:</b>				
Airports	Number	27.0	53.0	96.3%
<b>Airlines:</b>				
Pakistan International Airlines Corporation** - Passenger miles				
available	Million	1,718.1	3,427.1	99.5%
Passenger miles performed	Million	1,081.2	2,022.5	87.0%
Ton miles available	Million	227.7	543.8	138.9%
Ton miles performed	Million	139.1	326.3	134.5%

\*/ While the targets for the Third Plan indicate the total planned acquisition during the Third Plan, the targets for the Fourth Plan indicate the position in 1974-1975 after taking into account the replacements in parenthesis to be made during the Fourth Plan period.

\*\*/ The total for the Pakistan International Airlines Corporation includes all operations, interwing and intra-provinces.

The problems of water resource development in East and West Pakistan are very different from each other. East Pakistan, which is a humid region, faces the problem of recurring floods. West Pakistan, which is predominantly an arid region, faces the shortage of rainfalls in a large part of the region. To solve part of these problems, the country will make efforts to:

- control or regulate the floods to a feasible extent in order to avert the incalculable material damage and human suffering;
- develop and tap all the possible water resources to provide dependable and timely irrigation for winter crops;
- organize and expand the data collection activity and the investigation of work by providing adequate funds;
- expedite negotiations with India regarding the Ganges water to avert the imminent danger of damaging agriculture in the areas dependent on the river;
- improve the capacity of the agencies working in the field by undertaking a water resource development programme of a larger magnitude than before.

The problems of power development are different for the two wings of the country. East Pakistan offers little scope for the generation of hydroelectric power. Natural gas reserves in the eastern zone, however, are used for cheap thermal power generation. The western zone is dependent on imported fuels. Interconnections between the two zones are difficult because of the seasonal variations of water discharge of the main river. The northern part of West Pakistan provides a large source of hydroelectric power which is subject to seasonal variations. Natural gas resources in the south are sufficient for completing the hydroelectric potential in the north; therefore, the interconnection of hydroelectric stations with thermal stations is necessary and very high voltage transmission lines are required.

The severe transport bottlenecks of the recent years shall be eliminated during the Fourth Plan and the following years.

5. Planned industrial projects

Sugar:

In West Pakistan, the capacity will be increased through the establishment of a mill by WPIDC with Chinese assistance. Its capacity will be 10,000 to 15,000 tons per year. It will be the first of several to be established to permit the country to become self-sufficient.

Tobacco:

A cleaning, classifying and redrying plant of a capacity of 2,000 lbs. of tobacco leaf/hour is proposed for East Pakistan.

Woollen textiles:

The first modern wool-mill with 3,200 worsted spindles and 40 worsted looms will operate in East Pakistan; its production will meet the requirements of woollen textiles in East Pakistan. The estimated requirements for woollen textiles in 1974-1975 are:

<u>Total yarn</u>	<u>Cloth</u>	<u>Carpets and rugs</u>	<u>Blankets</u>	<u>Other products</u>
(million lbs.)	(million yds.)	(million numbers)	(million numbers)	(million lbs.)
21.0	10.0	3.0	1.0	3.0

The total requirement of raw wool will be 25.0 million lbs. of which over 6 million lbs. will have to be imported.

A production increase of 5 to 6 million lbs. (clean content) shall be achieved.

\$0.6 million will be provided for facilities for the balancing and modernisation of the existing capacity.

A wool bureau responsible for trade promotion, education, scientific and technological research publicity and information is proposed to be established.

Pulp:

In East Pakistan, the pulp mill producing 30,000 tons based on bamboo, reeds and jute waste and another one producing 50,000 tons based on jute cuttings are to be built.

The total investment costs of \$42 million are provided for the second project. The foreign exchange component amounts to \$23 million.

Chemicals - soda ash:

A soda ash ammonium chloride plant which will produce 40,000 tons of soda ash in 1974-1975 is included in the Fourth Plan.

Insecticides and pesticides:

In East Pakistan, two projects have been planned with annual capacities of 3,000 tons of Malathion and 2,400 tons of Dimecron and allied pesticides.

In addition, the following pesticides production projects and formulation units are under consideration of the Central Government:

Endrin	1,500 tons/year
Heptachlor	1,000 tons/year
Methyl Parathion	2,300 tons/year
Metachlorophos and M.S.P.	2,900 tons/year
Fotkolin	6,500 tons/year
Toxaphene	5 million lbs./year
Phosphate (basudin, diazonon, etc.)	800 tons/year
Metachlor M.S.P.	3,400 tons/year

In West Pakistan, a mono-ammonium phosphate plant with a capacity of 120,000 tons and a complex fertilizer plant with a capacity of 311,000 tons of nitro-phosphate and 322,000 tons of ammonium nitrate have been authorized by the Government; production will be started during the plan period.

In East Pakistan, an urea factory with a capacity of 340,000 tons has been sanctioned in the private sector; another urea plant which will be part of the industrial chemical complex at Ashugauy has been recommended for approval; it shall produce 320,000 tons of urea. A triple superphosphate plant based on imported phosphoric acid will go into production in 1971-1972.

Petroleum:

Two refineries are planned to be established within the plan period; one will be located in East Pakistan with a capacity of 1.5 million tons and one in West Pakistan with a capacity of 2 million tons. To achieve this capacity, an investment of about \$99.7 million will be needed.

Coal carbonisation:

In West Pakistan, a project has been sanctioned for the establishment of a coal carbonisation plant in Baluchistan.

In addition, a few low temperature coal carbonisation plants may be built.

A cookery to meet the requirements of steel, sugar, foundries, etc. will be needed.

Petrochemical industries:

The capacity of an existing polyethylene plant will be expanded from 5,000 tons to 15,000 tons. The expansion is based on the utilisation of ethylene from the petrochemical complex at Karachi.

Another petrochemical complex based on naphtha from the refinery at Karachi has been sanctioned by the Government. This project involves an investment of \$63.4 million of which about

\$35.9 million will be in foreign exchange. The complex is designed to produce:

Naphtha crackers	47 tons of ethylene but initially producing 24,500 tons which may be expanded to 60,000 tons.
Polyethylene plant	10,000 tons
PVC plant	15,000 tons
Vinylchloride monomer to feed the PVC plant	16,500 tons
Chlorine plant to feed the VCN plant	11,000 tons
Polypropylene plant	5,000 tons
Dodecyl benzene plant	5,000 tons

In the Government-financed sector (NPIDC) an export-oriented petrochemical complex based on natural gas has been approved by the Government. An investment of about \$219 million including \$118 million in foreign exchange is envisaged. The following will be produced:

Acetylene	36,000 tons
Bleaching powder	1,000 tons
Caustic soda	42,000 tons
PVC resin	50,000 tons
PACN (polyacrylonitrile)	12,000 tons
PACN tons	4,000 tons
PBMA (polymethacrylate)	4,000 tons
Nitrocell	37,000 tons
Ammonium sulphate	25,000 tons
Urea	150,000 tons

The complex is expected to be in production towards the end of the Fourth Five-Year Plan or early during the Fifth Plan.

**Cement:**

The production target of 7.3 million tons has been fixed for 1974-1975.

A project based on limestone with a rated capacity of 640,000 tons of cement will go into production during the Fourth Plan.

At Chittagong, a factory based on imported clinkers is expected to go into production in early 1971; it will produce 100,000 tons of cement.

Proposals of establishing a cement plant with a capacity of 1.5 million tons of cement a year are being.

#### Chemicals, antibiotics and fine chemicals:

A streptogramin factory is being set up in East Pakistan in the Government-financed sector and is expected to start production during the plan period.

The basic production of sulpho, anti-TB and anti-malarial drugs in the factory (jointly set up by EPIC with foreign manufacturer of recipe) at Dhaka will be in full operation.

#### Refractories:

The only existing refractory factory in the Government-financed sector is being balanced and modernized; it will produce 12,000 tons of fire-bricks.

A new plant to produce about 20,000 tons per annum of specialized refractories is proposed to be established.

#### Steel:

The Government has decided to build in East Pakistan a coastal plant of a capacity of one million tons based on imported ore. The Government of the USSR has agreed to collaborate by providing financial and technical assistance in the setting up of a mill. The plant will produce:

- 100,000 tons of pig-iron;
- 170,000 tons of billets;
- 200,000 tons of various sections; and
- 200,000 tons of flat-iron.

An initial capacity of 0.75 million tons could be working at the end of the plan.

A pig-iron mill of a 140,000 tons' capacity per annum based on a domestic Bhilashal medium-rank magnetic iron ore is proposed to be set up.

**General:**

A plant producing capacity and being able to provide the engineering information will be established at the beginning of the plan period.

**Production Capacity:**

The setting of a production plant and the construction of facilities and equipment are expected to start immediately.

**Production Capacity:**

The production capacity of the machine tool factory at the end of the plan will amount to 100,000 units.

In that factory, a machine tool factory is under implementation with an annual production capacity of 12,000 units. The production of machine tool units is expected to start by the end of 1973/1974.

**Production Capacity:**

The production capacity of all plants amounts to 15,000 units per year. The expansion of the capacity is envisaged during the Five-Year Plan.

Efforts will be made to improve the quality.

In that factory, a diesel plant with an annual production capacity of 1,000 engines is under implementation to the public sector in collaboration with foreign manufacturers. Production will start during the plan.

**Production Capacity:**

The heavy engineering complex of Tashkent will produce engines and other units, low speed diesel engines, pumps, compressors, and building machines, etc. amounting to 10,000 units per year.

A heavy machinery and pumps will be produced for the diesel factory and set up throughout the complex of Tashkent with an annual output of about 10,000 units in terms of engine output.



**OPERATIONAL STRATEGIES OF SECTORS**

To start with, the production of goods and services.

The quality of operational strategies will be determined by...

**OPERATIONAL STRATEGIES OF SECTORS, INDUSTRIES AND FIRMS**

In the private sector, the production of goods and services by the firming engine is essential to economic growth.

A standardized method of engineering and design will be required for the firming engine.

**OPERATIONAL STRATEGIES OF SECTORS, INDUSTRIES AND FIRMS**

The main objective during the private firming will be the expansion of the production of goods and services in all areas of plan implementation.

In the private sector, a program for administrative development is the implementation of the development program to make it work.

The re-orientation and strengthening of the provincial planning department and the planning cells in all important departments and agencies will be necessary. Arrangements have been made to implement the local operations with foreign consultants in the field of general economic and regional planning.

The success in the proposed investment programs will depend on effective utilization of administrative and managerial resources in the private sector. The structural and organizational improvements of corporations like EPIC and EPIC are essential to ensure an adequate return on investments. Training facilities for the creation of managerial skills will have to be provided.

- 1/ The private industrial development corporation.
- 2/ The private administrative development corporation.

In the first place, the various provisions of the  
present law are to be amended. There will be a  
change of effective period in the various  
provisions and it is to be seen that the amendments are  
of various and sundry kind. The law is to be amended and  
repealed in various parts of the law.

The various provisions of the law are to be amended  
and the amendments are to be made in various parts of  
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the law.

The first of these is the fact that the  
Government has not yet decided on the  
policy to be pursued in the event of a  
renewal of hostilities.

In the event of a renewal of hostilities, the  
Government has not yet decided on the  
policy to be pursued in the event of a  
renewal of hostilities. It is not clear  
whether the Government will continue to  
maintain its present policy of non-  
interference or whether it will  
adopt a more active role.

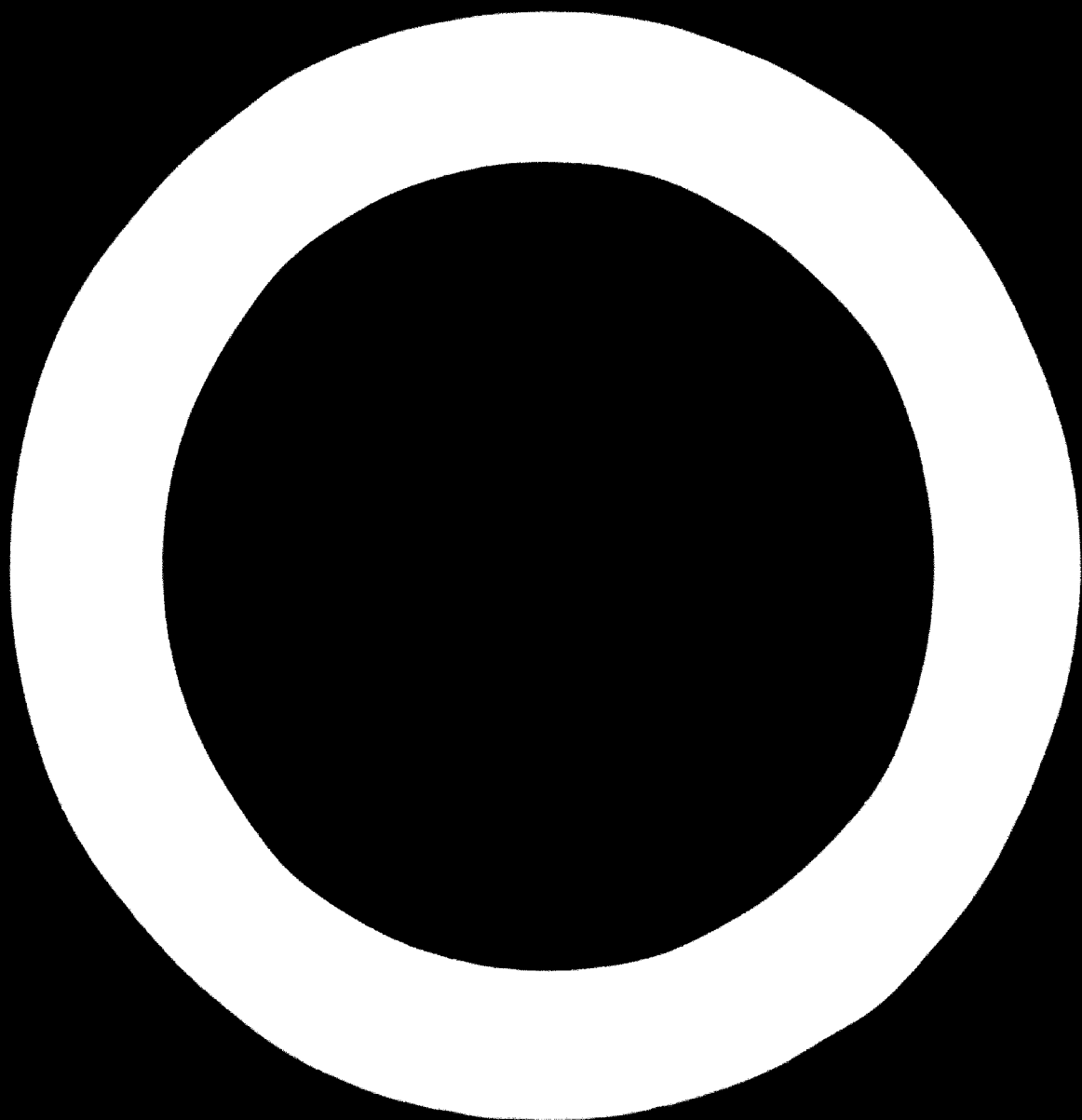
The second of these is the fact that the  
Government has not yet decided on the  
policy to be pursued in the event of a  
renewal of hostilities.

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The fourth of these is the fact that the  
Government has not yet decided on the  
policy to be pursued in the event of a  
renewal of hostilities.

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~~CONFIDENTIAL - SECURITY INFORMATION~~

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

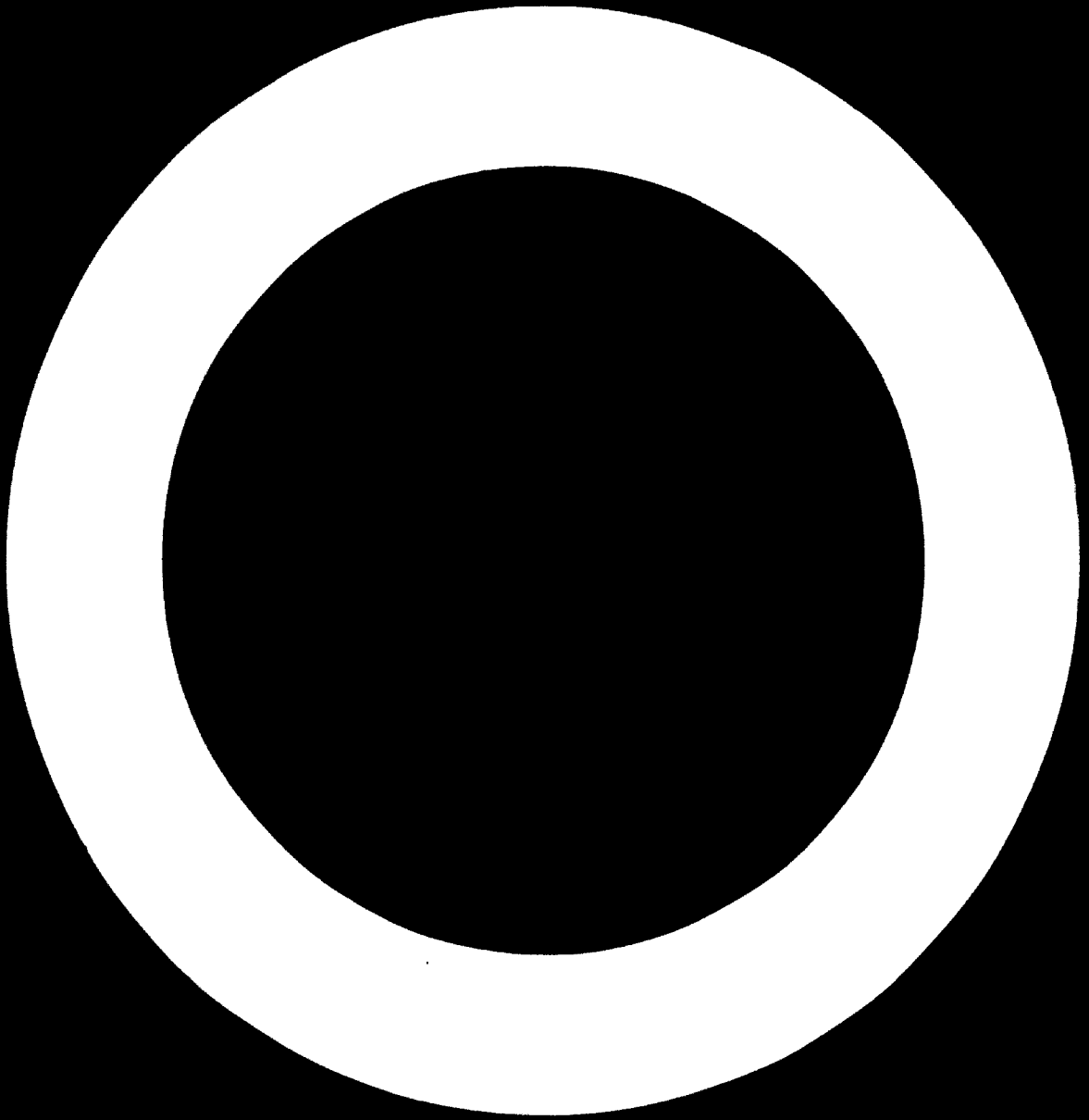
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1. GENERAL SITUATION IN TURKEY

1. Basic statistics of Turkey:

<u>Area:</u>		731,000 km <sup>2</sup>
	Agricultural area	544,000 km <sup>2</sup>
	Forests	106,000 km <sup>2</sup>

<u>Major cities:</u>	Istanbul: 1965 Population of	1,751,000
	Ankara: 1965 Population of	702,000
	Izmir: 1965 Population of	410,000
	Adana: 1965 Population of	290,000
	Bursa: 1965 Population of	210,000
	Eskişehir: 1965 Population of	175,000

<u>Other data:</u>	Calories per head, per day in 1965-1966	3,960
	Number of passenger cars in use in 1966 (per 1,000 inhabitants)	3
	Number of radio sets in use in 1967 (per 1,000 inhabitants)	85
	Number of telephones in use in 1967 (per 1,000 inhabitants)	8
	Electricity production in 1967: 187 kwh/head.	

Exchange rates:

<u>Unit</u>	<u>Turkish Lira equivalent</u>
US dollar	9.08
Pound sterling	21.795
Swiss franc	2.103
French franc	1.634
German mark	2.461
Italian lira (100)	1.451

2. Population:

The population in 1967 was 32,978,000. The number of inhabitants per km<sup>2</sup> was 42. The annual growth rate amounted to 2.5%.

The policy in relation to the population has been to improve its structure and to reduce its rate of growth through family planning.

The total labour force in 1967 was 13,737,000.

The population over the age of 6 is 25 million.

Urban and Rural Population

	<u>1955</u>	<u>1960</u>	<u>1965</u>
Urban population	22%	26%	30%
Rural population	78%	74%	70%

Distribution of Employment

	<u>1963</u>	<u>%</u>	<u>1965</u>	<u>%</u>	<u>1967</u>	<u>%</u>
Agriculture	9,853	77	9,768	75	9,940	72
Industry	1,125	9	1,197	9	1,424	10
Construction	339	3	379	3	472	3
Trade	435	3	471	4	498	4
Transportation	269	2	301	2	339	3
Services	808	6	936	7	1,066	8
Total	12,830	100	13,050	100	13,740	100

Distribution and Employment Increase  
in the First Plan Period

	<u>First Plan Estimate</u>		<u>Realized</u>	
	<u>1962</u>	<u>1967</u>	<u>1962</u>	<u>1967</u>
Agriculture	77.4%	71.1%	77.7%	72.3%
Industry	9.8%	11.9%	10.9%	13.8%
Services	12.8%	17.0%	11.4%	13.9%
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Manpower Situation

	<u>1960</u>	<u>1965</u>	<u>% increase</u>
Engineers	15,120	20,130	33
Technicians	23,500	33,620	43
Technical personnel in chemistry and physics	2,940	4,320	47
Artisans	933,240	1,235,000	32
	<u>1963</u>	<u>1965</u>	
Doctors	9,310	10,895	17
Dentists	1,680	1,930	15
Nurses (assistant health personnel and midwives)	13,700	14,900	9

Education:

48% of the total population are literate. Out of the literate population:

- 58.0% have completed primary training;
- 7.0% have completed secondary training;
- 25.0% have completed vocational training;
- 1.3% have completed university.

The remaining 31% consist of those who have not completed a formal educational institution.

The school attendance rate in 1967-1968 of the population at the age of 16-18 was 56%. The Central Government expenditure on education per head was \$11 in 1967.

3. **GNP:**

	1952	1954	Average 1952-54
Industrial GNP/capita (0)	30	43	6.0%
Total GNP/capita (0)	237	275	1.6%
Population (000)	29,000	30,000	2.9%
Industrial GNP (million \$ U.S.) <sup>a</sup>	1,000	1,800	8.0%
Total GNP (million \$ U.S.) <sup>aa</sup>	6,900	8,000	6.1%
Industry % of total GNP	14.5	15.9	

<sup>a/</sup> The contribution by the manufacturing sector alone is not available.

<sup>aa/</sup> At 1955 market prices.

**GNP Structure in %**

	1952	1954
Agriculture	41	35
Industry	17	20
Construction	6	6
Trade	9	10
Transportation	7	7
Financial institutions and professions	7	8
Health	3	4
Government services	10	11
Domestic income	100	100

**Total Investment, 1950-1959**

	1950	%	1959	%
Agriculture	97	17	80	14
Mining	76	6	30	6
Manufacturing	1,071	19	720	15
Energy	27	0	20	0
Transportation	70	11	70	14
Building	1,177	21	1,120	23
Education	20	7	20	7
Health	10	7	5	0
Public	0	1	0	0
Services	10	0	20	0
<b>Total</b>	<b>1,700</b>	<b>100</b>	<b>1,250</b>	<b>100</b>

**4. Investment, 1950-1959**

**Total, 1950:**

1950 - 0.7% of GNP  
 1959 - 0.5% of GNP  
 Average annual increase: 1.1%

**1950-1959:**

1950-1959: 17.7% increase

**GNP:**

Quantity exports to 1950-1959: 1.1%  
 Quantity imports to 1950-1959: 1.1%

**Total main exports:**

Cotton 27.0  
 Tobacco 20.0  
 Fruits and nuts 20.0  
 Lumber, fish and wool 2.0

**Total main imports:**

Machinery and equipment excluding transport equipment 20.0  
 Transport equipment 10.0  
 Iron articles 10.0  
 Mineral fuels 7.0

**Memorandum**  
**(OPTIONAL FORM NO. 10)**

TO : <b>Director</b> <b>Office of the Director</b> <b>Washington, D.C.</b>	<b>DATE:</b> <b>1954</b>
FROM : <b>Mr. [Redacted]</b> <b>Special Agent in Charge</b> <b>[Redacted Office]</b>	<b>RE:</b> <b>[Redacted Subject]</b>
SUBJECT: <b>[Redacted Subject]</b>	<b>[Redacted Information]</b> <b>[Redacted Information]</b> <b>[Redacted Information]</b>

**Table 1. Employment in the Public Sector**

(Millions of U.S.)

	1950	1955	1960	1965	1970
Total employment	4,400	5,000	5,600	6,200	6,800
Public sector	1,000	1,200	1,400	1,600	1,800
Private sector	3,400	3,800	4,200	4,600	5,000
Government	1,000	1,200	1,400	1,600	1,800
State and local	700	800	900	1,000	1,100
Federal	300	400	500	600	700
Nonprofit	1,000	1,200	1,400	1,600	1,800
Education	400	450	500	550	600
Health	150	180	210	240	270
Other	450	570	690	810	930

Note: Public sector employment includes transfer payments of this sector and payments made for goods and services from the economy into the public sector.

"Other Government" refers to private companies in the public sector and includes of public and private sectors.

In the public sector, only 1% of workers have had higher education; 10% are high school graduates; 10% have finished the first part of high school; 60% have completed primary school; only 1% of workers had special training in business administration.

**2. Industrial Structure and Employment in the Manufacturing Industry**

Manufacturing activities have been increasing rapidly; it contributes 15% to the GNP and employs 10% of the work force. The traditional light industries of textiles and processing of

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]





**Table 1. Summary of the Economic Situation, 1958**

	1958	1957	1956	1955	1954
Manufacturing industries	10	11	12	13	1,000
Construction	7	8	9	10	50
Services industries and government	15	16	17	18	20
Agriculture, forestry and fishing	1,000	1,000	1,000	1,000	1,000
Total gross value added	1,022	1,036	1,039	1,043	1,070
Value added in manufacturing	100	100	100	100	1,000
Construction value added	1,000	1,000	1,000	1,000	11,000
Services industries	1,000	1,000	1,000	1,000	1,000
Transport and storage	1,000	1,000	1,000	1,000	1,000
Information and communication	1,000	1,000	1,000	1,000	1,000
Finance and insurance	1,000	1,000	1,000	1,000	1,000
Other services	1,000	1,000	1,000	1,000	1,000
Public services	1,000	1,000	1,000	1,000	1,000
Energy (except electric and gas supply) industries	1,000	1,000	1,000	1,000	1,000
Electricity, gas and water supply	1,000	1,000	1,000	1,000	1,000
Other supply	1,000	1,000	1,000	1,000	1,000
Total	1,022	1,036	1,039	1,043	11,070

**STATE OF CALIFORNIA**

	1933	1932	1931
Engineering-ship	17,827	11,710	10,000
Superintendent-ship	6,071	7,120	7,210
Two fitting and two-master-ship	6,420	7,420	6,311
Training, officers, students, fitting	1,377	2,420	2,307
Travel	779	777	625
Up and down	774	1,120	1,201
Janitor	1,231	1,170	1,120
Supplies	6,277	7,420	6,220
Production products	1,270	2,120	1,211
Food supply	2,421	1,120	1,711
Light - fitting	170	127	70
Construction and repair	725	1,120	1,120
Printing	2,221	2,120	2,271
Other supplies	2,720	1,420	20,220
Gasoline	20,127	21,120	20,211
Master's pay	2,127	2,220	2,220
Master's pay subsidy	2,120	1,720	1,220
Gas and oil supply	12,220	12,127	10,127
Travel and per diem	10,220	10,220	10,221
Transportation and maintenance	20,211	20,220	20,227
Other	6,227	7,170	7,220
Production	2,120	2,220	2,220
Travel supply	120	227	227
Gasoline subsidy	170	127	225
Gasoline and other products	225	220	221
Printing	227	221	1,127
Supplies-plate supply	21	20	227
Lighting	120	120	170
Expenses	7,220	6,220	6,220
Expenses	221	221	170
Other materials	10,220	17,220	20,220
Total	120,220	177,220	120,220

Table of Employment in Industries That in 1925

	<u>Skilled</u>	<u>Unskilled</u>	<u>Apprentices</u>	<u>Women</u>	<u>Total</u>
Stenographers	11,410	7,268	9,455	2,081	32,214
Typewriter operators	7,900	4,031	4,700	1,242	17,873
Form fillers and tin-plate workers	6,270	4,193	1,408	370	16,241
Teachers, drillers and planning machine operators	5,697	4,318	4,086	830	14,931
Laundry workers	912	585	972	413	2,922
Car body repairers	1,308	1,277	1,002	202	3,829
Jewelers	1,961	1,168	802	800	4,731
Carpenters	10,361	7,760	7,670	14,079	39,870
Cook workers	4,798	1,001	3,607	2,616	14,022
Marble workers	3,697	2,970	2,225	1,166	10,058
Plumbers	308	129	78	64	579
Bricklayers	1,621	531	307	723	3,082
Stone cutters	2,601	1,733	1,530	11,296	17,160
Shoemakers	3,688	959	840	3,732	9,219
Milliners	26,466	11,612	11,013	13,689	60,780
Leather workers	2,402	7,636	646	236	11,020
Hand loom weavers	1,872	1,771	691	1,375	5,609
Carpet and rug weavers	20,402	9,676	4,001	61,166	95,065
Trimmers and tailors	12,000	10,327	21,768	13,793	56,888
Hatters	6,200	9,597	4,006	17,233	39,036
Confectioners	2,363	2,628	1,603	1,414	11,408
Printers	540	251	297	632	1,720
Glaziers	231	159	167	110	667
Ceramics and china workers	308	364	106	551	1,229
Printers	1,860	720	646	1,837	4,473
Stereotype-plate workers	121	29	75	8	233
Shipbuilders	219	102	100	628	909
Rope-makers	6,894	912	4,064	351	12,171
Iron workers	600	564	432	2,001	3,727
Other handicrafts	20,100	5,610	6,206	3,305	39,221
<b>Total</b>	<b>222,699</b>	<b>112,363</b>	<b>101,332</b>	<b>160,419</b>	<b>596,813</b>

6. Industry - related resources and activities:

Agricultural Production

(000 metric tons)

	1966	1968
Total cereals	16,410	15,800
Wheat	9,000	9,500
Barley	3,800	3,900
Oats	1,000	1,000
Rice	190	180
Others	1,860	1,620
Tobacco	164	162
Sugar beet	4,420	n.a.
Cotton	300	435
Beans	190	130
Maize	80	90
Potatoes	9	10
Olive	840	820
Grape	3,100	3,300
Pigs	215	220
Tea (wet leaves)	105	125
Citrus fruits	408	525
Oranges	310	410
Lemons	85	110
Tangerines	50	55

Nearly 75% of the population are engaged in agriculture and just under 50% of the total exports consist of agricultural products. Due to growing adverse conditions, grain has recently had to be imported.

Forestry:

Approximately 13% of the land area are forested, but hardly exploited; about one third of this is considered productive, the rest being only scrub and brush for fuel purposes.

The principal woods are: pine, oak, beech, fir and spruce. Requirements of construction timber are nearly all produced locally.

Power:

The electric power is used by only one third of the population; production is undertaken by a few large and many small producers.

Thermal stations are normally used, although hydroelectricity is becoming increasingly important; studies are being carried out on the possibility of nuclear and geothermal power units.

The Ministry of Energy and Natural Resources is responsible for planning a large-scale power development programme.

The Etibank (a state economic enterprise) is responsible for electricity generation and transmission.

The Illerbank is in charge of the distribution in urban areas.

The Devlet Su Isleri (DSI) is in charge of the design and construction of hydroelectric projects.

The mining industry remains somewhat underdeveloped in spite of the country being rich in resources. 85% of the production are privately controlled by the Etibank, a state economic enterprise.

One third of crude petroleum requirements is domestically produced, the remainder is imported. The domestic production is undertaken by:

- Turkiye Petrolleri Anonim Ortakligi (TPAO)
- Broom Petrol Sanayi, A.S.
- Mobil Oil
- Royal Dutch Shell.

The crude oil processing in 1968 by three refineries consisted of:

Gasoline	913,000 metric tons
Diesel fuel	1,504,000 metric tons
Fuel oil	2,765,000 metric tons
LPG	131,000 metric tons
Kerosene	451,000 metric tons
Others	<u>490,000 metric tons</u>
Total	6,300,000 metric tons

The USSR is building a refinery at Ismir, due for completion in 1972.

Mineral resources:

Production of Minerals in Turkey, 1966-1967<sup>\*/</sup>

(in metric tons, except as noted)

<u>Commodity</u>	<u>1966</u>	<u>1967</u>
<b>Metals</b>	-	2,578
Antimony	3,222	2,349
Chromite	511,645	371,138
Copper (blister)	26,617	25,390
Ferrochromium	7,000	8,471
Iron ore (1,000 tons)	1,615	1,523
Lead:		
Ore	-	4,652
Concentrate	1,559	2,195
Manganese ore	21,965	17,307
Mercury (76 lb. flasks)	3,420	4,147
Pyrite:		
Cupreous	120,622	125,010
Non-cupreous	52,908	55,000
Zinc:		
Zinc ore (40%)		
Zinc-lead ore	16,620	18,448
Zinc ore, calcined	7,150	3,171
Zinc concentrate	1,768	1,343
<b>Non-metals</b>		
Asbestos, crude	3,630	3,257
Asphaltite	10,843	11,366
Barite	17,103	30,647
Bauxite (refractory)	32,280	21,490
Cement (1,000 tons)	3,865	4,249
Emery	29,470	24,475
Flourespar	1,753	432
Gypsum	250,000	275,000
Magnesite:		
Crude ore	41,643	13,271
Sintered	24,146	23,548
Marble	15,000	15,000
Moerscham (kgs)	57,200	67,550
Salt, all types (1,000 tons)	358	637
Sodium sulfate	7,423	9,112
Sulphur, refined	22,650	25,384
<b>Mineral fuels</b>		
Coke, all types (1,000 tons)	1,449	1,368
Coal, bitumen, salable (1,000 tons)	4,903	5,013
Lignite, salable (1,000 tons)	4,774	4,468
Petroleum, crude	2,041	2,728

<sup>\*/</sup> Source: US Embassy, Ankara



7. Overall economic development strategy and policy:

8. Regional co-operation:

Composition of Regional Imports  
(million \$ U.S.)

	<u>Investment goods</u>	<u>Raw materials</u>	<u>Consumer goods</u>	<u>Total</u>
1963	28	36	12	76
1964	22	33	5	60
1965	22	35	7	64
1966	29	41	9	79

Origin of Imports by Regions in %

	<u>1963</u>		<u>1966</u>	
	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>
OECD countries	76	79	75	74
Bilateral agreement countries	12	13	14	19
Other countries	12	8	11	7
Total	100	100	100	100

Composition of Regional Exports  
(million \$ U.S.)

	<u>Agricultural products</u>	<u>Mining products</u>	<u>Industrial products</u>	<u>Total</u>
1963	32	1	8	41
1964	35	2	9	46
1965	39	2	10	51
1966	42	3	10	55

9. Systems for planning and plan implementation:

The annual programmes of the State Planning Organisation are used

- to readjust the initial assumptions of the Plan whenever necessary.
- to correct mistakes occurring in the estimates and to reach targets in accordance with the new data.
- to revise the sectoral distribution of investment whenever necessary.

The co-ordination between the State Planning Organisation, the Ministry of Finance, the Ministry of Commerce and the Central Bank will be established. The State Planning Organisation will collaborate closely with the State Institut of Statistics in the compilation of data.

All investment proposals for public sector projects will be submitted to the State Planning Organisation, while local authorities will be required to inform the State Planning Organisation of their investments.

Public sector enterprises will be free to determine their production levels and the prices of their products in accordance with the existing legislation and subject to the requirement that they submit quarterly progress reports to the State Planning Organisation.

The relations between the State Planning Organisation and the private sector will be reorganised to provide a two-way information flow.

Private investment projects related to manufacturing industries will be examined annually by the State Planning Organisation so that the foreign exchange requirements of projects will be met. The chief criteria will be their productivity and their contribution towards economic development.

All important financial issues related to economic and social development will be examined by the State Planning Organisation before being submitted to the High Planning Council.

The Central Government and local administrations will be reorganised to increase their contribution to the development effort.

10. Public investments through the various plan periods:

Public sector investments often fell short of the set targets due to:

- internal financing difficulties.
- the failure to prepare a sufficient number of projects during the initial years of the plan period.
- legislation causing difficulties and hindering investments.
- external financing difficulties.

Problems arising in relation to the credit system:

- The banking system continued to be the only institution mobilising and distributing private savings.
- Only limited progress was made towards the specialization of banks: long and medium-term credit requirements were met under the conditions for short-term credits.
- A differential interest rate system enabling the adoption of different maturities for both deposits and credits was not implemented.

Problems of the manufacturing sector:

- The largest proportion of manufacturing enterprises is indifferently managed on a small scale scattered throughout the country.
- Only 6.5% of 5,925 enterprises in both public and private sectors employ more than 100 workers.
- Large-scale industries are hampered due to the lack of a capital market, limited habits of co-operation among entrepreneurs and the inadequacy of management staff.
- The lack of co-ordination between institutions has resulted in the failure of incentives to help the manufacturing sector.
- Current licensing procedures for industrial enterprises are extended.
- Exports of manufactured goods have been hampered by the generally high domestic cost of production in relation to world prices. This has been due to:
  - high tariffs on imported capital goods and on raw materials.
  - high costs of domestic raw materials and of some essential services to manufacturers.
  - high interest rates due to a shortage of capital.
  - the establishment of enterprises without considering the minimum economic capacity required.

11. SUMMARY OF THE FINANCIAL STATEMENT PLAN 1982-1997

1. GENERAL DATA AND STATISTICS:

(a) General Data:

	1982	1992	Average annual GROWTH
Industrial GDP/capita (0)	65	97	2.7%
Total GDP/capita (0)	204	314	4.4%
Population (000) <sup>o</sup>	10,700	17,000	2.4%
Industrial GDP <sup>oo</sup> (million \$ U.S.)	2,140	1,600	10.2%
Total GDP (million \$ U.S.) <sup>oo</sup>	9,000	13,200	7.0%
Industry % of total GDP	23	27	
Private consumption (million \$ U.S.)	6,375	8,100	2.4%
Investment (million \$ U.S.)	1,075	1,219	11.0%
Exports (million \$ U.S.)	510	700	7.1%
Imports (million \$ U.S.)	700	1,114	7.0%

<sup>o/</sup> The population figure of 1987 is from a UN publication and the 1992 figure is estimated, using the 1980-1987 average annual growth rate of 2.4%.

<sup>oo/</sup> At 1984 market prices.

(b) Policy Objectives:

- to raise the standard of living rapidly within the framework of the mixed economy system;
- to achieve balanced development between various regions and different income groups;
- to create employment opportunities for a greater number of people, to distribute the benefits and burden of development equitably and in accordance with the principles of social justice, and to bring about changes in the social and economic structure with stability.

**2. INDUSTRY AND TRADE:**

**(1) General:**

Policies to realize the Plan targets will be pursued in the framework of a mixed economic system, the Plan being indicative as regards the public sector and merely indicative for the private sector.

Both, the private and public sectors, will be accorded equality of treatment in fields where they carry on productive activities.

Before investments are made, projects will be evaluated by a single authority to determine to what extent inducement measures will be applied.

Functioning procedures for the establishment and operation of industrial enterprises will be improved.

A programme will be drawn up for firms which have benefited through protectionist policies:

- to ensure that they supply goods to the domestic market at lower prices;
- to prevent monopolistic tendencies;
- to strengthen their international competitiveness.

The assembly industry, using imported parts and components, will be reorganized through the adoption of the following measures:

- the participation of the assembling enterprises in the establishment of large joint enterprises to produce import-substituting and semi-finished or intermediate goods;
- the priority in the domestic production of semi-finished or intermediate goods supplied to industries producing transport equipment, agricultural machinery and implements;
- components for the assembly industry which have to be imported will be standardized in order to produce types and models suited to the country's conditions.

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The removal of quantitative and exchange controls  
and of national frontiers, as well as the elimination of  
restrictions on monetary flows to ensure industrial projects  
will be carried.

The future activities of scientific and technical research  
and activities in industrial research facilities shall

- contribute to activities in the  
scientific research of the  
developing industry;
- follow closely the progress in  
science in advanced countries  
and apply them to Turkey's conditions;
- cooperate to provide technical  
assistance services to industrial  
enterprises.

The industrial zone are integrated will be limited to  
certain areas covered with the necessary infrastructure.

Industrial activities in the established in industrial zones  
and industrial zone activities is restricted in the cities will  
be encouraged to settle in these zones.

**Transition Period**

The "transition period" in the association agreement  
with the EC will be extended to 4 years to 1975. Only then  
will the Turkish economy be able to pass into the "transition"  
and "final" periods.

The EC decided to remove barriers on industrial  
products as from 1 July 1974. Agricultural products are to  
be included in a joint regime.

Export controls will be progressively phased within EC  
countries.

Relations with countries with whom Turkey has bilateral  
agreements will be continued.

Ties established with the USSR and the EW will be  
continued, especially as a source of assistance in balance  
of payments problems.

**Balance of Payments Statement**  
(million U.S.)

	1952	1953	1954	1955	1956	1957
Current account	-122	-127	-122	-225	-202	-201
a) Trade balance:	-102	-105	-105	-195	-175	-175
Imports	-115	-115	-115	-215	-195	-195
Exports	13	10	10	20	20	20
b) Invisibles:	20	22	17	10	27	26
Interest payments	-10	-10	-10	-10	-10	-10
Tourism and travel	10	12	7	20	17	16
Profit transfers	10	12	7	20	17	16
Merchandise remittances	10	12	7	20	17	16
Others	0	0	0	0	0	0
c) NET off-shore receipts:	20	22	17	10	27	26
Capital movements	22	17	22	25	22	22
Net repayments	-105	-105	-105	-105	-105	-105
Private Foreign capital	25	20	25	25	25	25
Imports with interest	10	10	10	10	10	10
Foreign financing requirement	22	27	22	25	22	22
Reserve movements	.	-10	-10	-10	-10	-10
Short-term import-export credits	.	.	.	.	.	.
Net errors and omissions	.	.	.	.	.	.



(1) **ENGINEERS AND TECHNICIANS**

**Technical Occupations, 1957-1972**

(in 000)

<b>Profession</b>	<b>1957</b>	<b>1962</b>	<b>1969</b>	<b>1970</b>	<b>1971</b>	<b>1972</b>
<b>Engineers:</b>	7.6	10.3	11.1	12.2	14.1	15.7
Architects and civil engineers	4.4	5.4	6.0	6.7	7.4	7.6
Mechanical engineers	2.7	3.1	3.4	4.1	4.5	4.7
Electrical engineers	0.3	1.2	1.0	1.2	1.5	1.1
Miner engineers	0.1	0.6	0.6	0.7	0.7	0.7
Other engineers	-	-	-	-	-	-
Topographers, hydrographers and cartographers	0.1	0.2	0.1	0.2	0.1	0.4
<b>Scientists and technicians:</b>	6.8	10.3	15.0	20.0	26.1	33.7
Construction technicians	2.0	1.6	1.7	2.1	10.6	11.7
Mechanics	-	-	1.1	1.7	2.7	3.5
Electricians	-	0.7	1.1	2.1	3.7	3.7
Mining technicians	0.2	-	0.1	0.1	0.1	0.1
Technical draftsmen and supervisors	1.2	0.8	0.8	-	-	-
Other technicians	3.4	4.7	6.1	7.9	9.9	12.2
<b>Agriculture and forestry:</b>	3.8	5.1	5.5	5.8	6.2	6.6
Agricultural engineers and landscapers	-	-	0.1	0.1	0.1	0.2
Furriers and architects	0.1	0.1	0.2	0.2	0.2	0.2
Veterinarians	-	-	0.1	0.1	0.4	0.5
Agricultural technicians and technical workers	2.5	2.4	2.3	2.3	2.4	2.4
Forestry technicians and technical workers	0.8	1.4	1.4	1.4	1.4	1.5
Animal hygiene officers	0.4	1.2	1.4	1.5	1.7	1.8
<b>Professions related to chemistry and physics:</b>	0.1	0.1	0.3	0.4	0.5	0.5
Physicists, geophysicists and geologists	0.1	0.1	0.2	0.3	0.4	0.4
Chemists, chemical engineers and chemical technicians	-	-	0.1	0.1	0.1	0.1
<b>Artisans:</b>	101.0	174.0	209.6	337.5	421.2	522.3
Blot furnace, rolling-mill, forge and foundry workers	2.7	3.0	5.0	6.6	8.3	10.0
Machinery manufacture and repair shop workers	26.1	31.8	39.8	49.8	60.5	73.5
Electrical appliances manufacture and repair workers	4.3	5.3	7.0	8.9	11.3	14.0
Meatery and other related vocations	13.8	25.2	37.7	50.0	62.9	77.2
Tailors, furriers and cobblers	2.7	9.6	17.9	26.3	35.9	47.0
Wood, rush and cane craftsmen	10.0	23.8	34.8	46.0	58.7	73.2
Workers engaged in food, beverage and tobacco processing	11.0	18.3	25.0	32.3	40.0	48.4
Construction workers	107.8	32.6	49.3	73.9	89.4	113.5
Stone, marble and clay craftsmen	4.9	13.2	19.0	25.6	32.8	40.8
Miscellaneous	6.8	10.3	14.1	18.1	21.4	24.7

**The Growth of Higher Agricultural and Technical Education (1970-1973)**

**TABLE I** 1970-1973 1970-1971 1971-1972 1972-1973

	1970-1971	1971-1972	1972-1973	1970-1971	1971-1972	1972-1973
Architects and civil engineers	1,050	1,050	1,050	7,050	7,050	10,050
	1,300	1,600	1,600	1,600	1,600	2,300
Electrical engineers	1,110	1,350	1,350	1,700	2,100	2,650
	80	80	80	425	510	615
Electrical engineers	705	245	245	245	1,195	1,085
	245	260	260	265	295	345
Mining engineers	130	400	400	690	990	700
	130	145	145	175	210	285
Industrial engineers	325	360	360	510	710	940
	-	-	-	-	125	205
Naval engineers	50	50	50	60	85	110
	-	-	-	-	20	25
Other engineers	120	170	170	225	290	360
	-	-	-	15	35	60
Surveyors and cartographers	100	125	125	150	160	230
	35	45	45	60	75	90
Agricultural engineers	730	795	795	870	955	1,050
	410	425	425	440	490	520
Forestry engineers	365	415	415	470	530	595
	170	190	190	205	225	225
Zoologists and veterinarians	290	305	305	405	595	720
	60	75	75	95	140	190
Physicists and geophysicists	635	680	680	745	815	900
	160	180	180	225	245	260
Chemists and chemical engineers	915	925	925	930	940	960
	390	425	425	430	440	450

Distribution of Demand for Manpower by Occupation (1968-1972)  
(in 000)

<u>Occupations</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Firemen, rollers, drawers and moulders	23	26	28	30	33
Occupations related to the manufacture and repair of machinery	297	317	339	364	392
Occupations related to the manufacture and repair of electrical equipment	48	52	57	61	67
Weavers and other textile workers	209	222	234	248	264
Tailors, furriers and shoemakers	294	309	325	341	360
Occupations related to food, beverages and tobacco manufacturing	129	137	145	153	162
Occupations in the manufacture of wood, rush and cane products	190	204	219	235	252
Occupations related to construction	186	209	241	264	296
Occupations related to the manufacture of stone, marble and ceramic products	50	56	63	71	79
Other craftsmen and workers	68	73	79	84	90
<b>Total</b>	<u>1,494</u>	<u>1,605</u>	<u>1,730</u>	<u>1,851</u>	<u>1,995</u>

Distribution by Profession of Extension Courses  
and Net Capacity to be Created (1968-1972)

<u>Vocations</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Purnacemen, rollers, drawers and moulders	1,000	1,500	2,000	2,500	3,000
Occupations related to the manufacture and repair of machinery	8,000	10,000	14,000	17,000	25,000
Occupations related to the manufacture and repair of electrical equipment	1,500	2,000	2,750	3,400	4,300
Weavers and other textiles workers	12,500	14,500	15,000	16,500	18,700
Tailors, furriers and shoemakers	7,000	8,500	8,900	10,500	12,000
Occupations related to food, beverage and tobacco manufacturing	7,000	8,700	9,800	10,700	11,700
Occupations in the manufacture of wood, rush and cane products	11,000	13,000	14,500	16,200	18,500
Occupations related to construction	16,000	22,600	30,500	31,000	31,000
Occupations related to the manufacture of stone, marble and ceramic products	5,000	6,850	8,650	9,600	10,400
Other craftsmen and workers	<u>3,500</u>	<u>4,750</u>	<u>5,000</u>	<u>5,550</u>	<u>5,900</u>
<b>Total</b>	<b>72,500</b>	<b>92,500</b>	<b>111,100</b>	<b>122,950</b>	<b>140,400</b>

Public sector establishments will be reorganized in order to improve efficiency. Excess manpower will be transferred or retained to other areas.

On-the-job training programmes will be prepared in public sector establishments.

Graduate studies in the administrative services will be required in high-level management.

Emigration of qualified manpower will be prevented by making local opportunities increasingly attractive.

Special facilities will be provided to encourage employment in underdeveloped areas.

(iii) Investment and capacity utilization:

Total Planned Investment in Development (1967-1972)

(million \$ U.S.)

	<u>Public</u> <u>sector</u>	<u>Private</u> <u>sector</u>	<u>Total</u>	<u>%</u>
To manufacturing industry	n.a.	n.a.	2,780	22.5
To all sectors	6,830	5,500	12,330	100.0

Investments in the manufacturing industry, which has been planned to be the economy's leading sector in the long run, have been given priority.

The public sector investment expenditures, their sectoral distribution and their rate of increase have been determined on the basis of the structural changes and interregional balances projected in the Plan.

(iv) Interconnections between growth factors:

	<u>1972</u>	<u>1967-.972</u> <u>(average)</u>
Gross domestic savings	22.6% of GNP	20.8% of GNP
Gross investment	24.3% of GNP	22.7% of GNP
Export-import ratio	0.65	n.a.

1. Data bases and projections:

In order to guide the choice of the various Plan targets and to determine the policy investments to achieve the targets, a methodology consisting of three different but interrelated stages has been used:

- analyses of macro-economic aggregates of the economy within the framework of a multisectoral mathematical model;
- detailed sector studies in the second stage with the extensive use of input-output models based on versions of the 1963 input-output table (updated with respect to changes in technical coefficients due to forthcoming new investment projects);
- industrial project evaluation to complete the consistency check on various values obtained in the previous stages.

In this way upward and downward consistencies were ascertained at every stage throughout the whole exercise.

4. Planned growth of industrial sectors:<sup>a/</sup>

(a) Planned growth of manufacturing sectors:

	Output Unit	1967	1972
Sugar industry	Tons (000)	620	860
Vegetable oils industry	Tons (000)	380	590
Animal feed	Tons (000)	77	151
Cotton textiles	Million metres	730	1,090
Woolen textiles	Million metres	235	285
Timber industry	cube metres (000)	1,900	2,850
Kraft paper	Tons (000)	-	60
Paper	Tons (000)	122	308
Soda ash	Tons (000)	-	85
Caustic soda	Tons (000)	-	46
Sulphuric acid	Tons (000)	50	1,000
Nitrogenous fertilisers	Tons (000)	160	1,500
Phosphate fertilisers	Tons (000)	250	2,430
Artificial fibres	Tons	1,700	11,500
Synthetic fibres	Tons	2,700	18,500
Polyvinyl chloride	Tons (000)	-	27
Cement	Tons (000)	4,400	9,670
Steel (ingots)	Tons (000)	980	1,650
Blister copper	Tons (000)	29	58
Aluminium	Tons (000)	-	25
Steel structures	Tons (000)	12	26
Tractors	Numbers	8,000	15,000
Harvesters	Numbers	50	600
Electric motors:			
0.2 HP	Numbers	160,400	246,800
2.10 HP	Numbers	6,800	13,300
Trucks and buses	Numbers	9,500	15,900
Automobiles	Numbers	6,000	16,500

<sup>a/</sup> Values are given at constant prices of 1965 except where indicated otherwise.

**Investment and Value Added**

(million \$ U.S.)

	Investments second Plan period		Value added 1972 increase	
	1967	1972	1972	increase
Tobacco manufactures	21.0	166.0	190.0	14%
Beverages	35.5	48.0	65.0	35%
Food	205.0	350.0	475.0	37%
Textiles and clothing	266.0	435.0	655.0	51%
Wood products	49.0	65.0	95.0	40%
Paper	205.0	19.0	40.0	106%
Printing	22.0	26.0	42.0	65%
Hides and leather	17.0	10.0	13.0	33%
Rubber	78.0	98.0	90.0	56%
Plastics	26.0	17.0	37.0	120%
Chemicals	472.0	111.0	290.0	160%
Petroleum products	128.0	175.0	305.0	75%
Ceramics	4.4	8.0	13.0	13%
Glass	27.0	34.0	55.0	70%
Cement	105.0	42.0	95.0	23%
Cement and baked clay products	6.6	39.0	55.0	70%
Iron and steel	466.0	129.0	245.0	90%
Non-ferrous metals	167.0	47.0	78.0	67%
Metal products	128.0	116.0	205.0	70%
Machinery	172.0	90.0	220.0	148%
Agricultural machinery and implements	17.0	20.0	41.0	111%
Electrical machinery	58.0	32.0	75.0	130%
Electronics	17.0	13.0	31.0	133%
Road vehicles	39.0	72.0	140.0	96%
Railway vehicles	12.0	20.0	27.0	33%
Shipbuilding	39.0	7.0	25.0	283%
Aircraft and maintenance	1.6	0.6	1.1	70%
<b>Total</b>	<b>2,766.0</b>	<b>2,198.0</b>	<b>3,603.0</b>	<b>67%</b>



**Imports and Exports Estimates  
for the Manufacturing Industry (at 1967 prices)  
(million \$ U.S.)**

	<u>Imports (C.I.F.)</u>			<u>Exports (F.O.B.)</u>		
			<u>Index</u>			<u>Index</u>
	<u>1967</u>	<u>1972</u>	<u>1967=100</u>	<u>1967</u>	<u>1972</u>	<u>1967=100</u>
Tobacco and cigarettes	-	-	-	91.7	109.0	118.6
Beverages	0.7	2.0	333.0	0.5	2.0	320.0
Food	17.2	7.0	38.6	139.1	154.0	110.5
Textiles and clothing	7.3	9.0	121.2	7.5	39.0	514.7
Wood products	0.6	1.0	200.0	1.1	6.0	500.0
Paper	15.5	16.0	100.0	-	-	-
Printing	2.2	2.0	95.0	0.2	0.6	275.0
Hides and leather	2.2	3.0	150.0	8.2	13.0	162.1
Rubber	14.4	18.0	123.0	-	-	-
Plastic	-	-	-	-	-	-
Chemicals	183.2	222.0	121.2	3.9	12.0	314.0
Petroleum	12.1	19.0	160.2	3.1	-	-
Ceramics	0.03	-	-	0.2	1.5	642.0
Glass	2.6	1.0	42.9	2.5	4.0	174.6
Cement	2.2	-	-	-	-	-
Cement and baked clay products	-	-	-	-	-	-
Iron and steel	44.4	108.0	242.5	-	-	-
Non-ferrous metals	25.5	30.0	117.3	22.2	3.0	240.0
Metals products	22.2	33.0	150.0	0.5	53.0	800.0
Machinery	205.8	366.0	177.9	1.6	4.0	600.0
Agricultural machinery and tools	5.2	7.0	127.6	-	-	-
Electrical machinery	35.2	55.0	157.7	2.9	9.0	384.6
Electronics	16.1	34.0	213.7	0.5	11.0	222.0
Road vehicles	42.7	25.0	58.4	-	-	-
Railway vehicles	6.7	6.0	83.3	0.1	1.0	1,200.0
Shipbuilding	8.3	7.0	80.0	-	-	-
Aircraft repair and maintenance	12.2	16.0	127.2	-	-	-
<b>Total</b>	<b>684.6</b>	<b>987.0</b>	<b>144.1</b>	<b>286.0</b>	<b>424.0</b>	<b>148.3</b>

**Summary:**

Tobacco processing enterprises which are functioning under the state monopoly will be reorganized in the form of state economic enterprises.

	1967	1972	Average annual increase
<b>Domestic demand estimates of manufactured tobacco in:</b>			
000 tons	37.5	44.58	3.83%
Million \$ U.S.	179.0	213.00	3.80%
<b>Production estimates of manufactured tobacco in:</b>			
000 tons	37.5	44.68	3.83%
Million \$ U.S.	179.0	213.00	3.80%
<b>Of manipulated leaf tobacco in:</b>			
000 tons	66.8	116.70	3.00%
Million \$ U.S.	92.0	107.00	3.10%
<b>Investment estimates (1968-1972) in:</b>			
Million \$ U.S.		21.1	
<b>Export estimates of manipulated leaf tobacco in:</b>			
000 tons	66.8	78.00	3.00%
Million \$ U.S.	92.0	107.00	3.10%

**Summary:**

The state monopoly will be lifted and existing enterprises owned by the public sector will be brought together under a state economic enterprise.

Foreign capital investments, other than those in export-oriented projects, will not be allowed.

**Domestic Demand Distribution (as of 1972 figures)**

	1971	1972	Average annual increase
	Millions	Millions	
	1971	1972	
<b>Total with 10% domestic content:</b>			
Auto	14,000	27.60	3.7%
Truck	1,400	1.60	2.4%
Bus	0,400	0.60	6.2%
Trailer	0,200	0.60	5.0%
Motorcycle	0,400	0.50	6.4%
Other	0,500	0.70	19.2%
<b>Total</b>	<b>17,500</b>	<b>36.5</b>	<b>5.7%</b>
<b>Auto</b>	<b>19,900</b>	<b>23.80</b>	<b>3.7%</b>
Truck	0,500	1.20	3.7%
Bus	3,000	0.00	20.0%
Trailer	0,200	1.00	25.0%
Motorcycle	0,400	0.00	125.1%
Other	1,300	1.50	2.9%
<b>Total</b>	<b>26,300</b>	<b>37.5</b>	<b>5.2%</b>
<b>Auto</b>	<b>35,000</b>	<b>55.90</b>	<b>9.8%</b>
<b>Non-automobile beverages</b>			
Soft type drinks	15,000	50.00	25.0%
Hard soft drinks containing fruit	10,000	20.00	14.0%
Other	0,000	100.00	100.0%
<b>Total</b>	<b>250,000</b>	<b>71.70</b>	<b>100.4</b>





**Foodstuffs:**

Processed food will be chiefly produced by private sector enterprises.

Measures will be taken to make the maximum use of producers' unions to increase production.

The establishment of large firms to open retail sales stores will be encouraged.

Export production will be encouraged.

**Domestic Demand Estimates (at 1972 prices)**  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Meat	193.6	278.9	7.4%
Fish	2.4	3.5	7.2%
Milk products	183.5	275.2	7.5%
Fruit and vegetable processing (canning)	47.5	75.9	9.5%
Shellnuts (shelled)	6.6	7.7	3.2%
Pistachio nuts	2.9	3.7	5.2%
Raisins	4.4	4.4	-
Dried figs	3.8	3.1	-
Cereal products	988.2	1,119.9	4.0%
Sugar	187.5	233.8	6.5%
Vegetable oil	144.0	209.6	10.1%
Tea	64.3	91.1	7.1%
Animal feed	7.2	14.1	14.2%
<b>Total</b>	<b>1,787.9</b>	<b>2,221.1</b>	<b>6.2%</b>

**Production Statistics**  
(million \$ U.S.)

<b>Commodity Group</b>	<b>1967</b>	<b>1972</b>	<b>Average annual increase</b>
Meat industry	193.6	278.9	7.6%
Fish processing industry	2.7	5.0	13.6%
Milk products	183.5	277.7	8.7%
Fruit and vegetable processing (canning)	47.7	81.5	11.2%
Shellnuts (shelled)	64.5	76.0	3.5%
Pistachio nuts	7.9	12.8	10.1%
Almonds	26.5	29.6	2.2%
Dried figs	11.1	12.2	1.9%
Cereal products	920.2	1,119.9	4.0%
Sugar	175.7	244.2	6.7%
Vegetable oil	186.1	293.0	9.5%
Tea	64.8	92.5	7.4%
Industrial food	7.2	14.1	14.5%
<b>Total</b>	<b>1,891.6</b>	<b>2,537.5</b>	<b>6.0%</b>

**Investment Estimates**  
(million \$ U.S.)

1963-1967	110.4
1968-1972	205.3

**Export Estimates**  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Canned fish	0.2	1.5	49.6%
Milk products	-	2.4	-
Fruit and vegetable canning	0.3	5.6	77.0%
Hazelnuts (shelled)	57.9	68.0	3.3%
Pistachio nuts	5.0	8.9	12.1%
Raisins	22.1	25.2	2.9%
Dried figs	7.3	8.9	4.9%
Sugar	8.2	9.8	3.6%
Vegetable oil	19.4	13.9	-6.0%
Tea	2.2	1.4	-9.4%
Others	12.3	3.7	-21.4%
<b>Total</b>	<b>134.9</b>	<b>149.3</b>	<b>2.1%</b>

**Import Estimates**  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Tea	-	-	-
Vegetable oil	14.4	-	-
Others	2.8	6.7	18.9%
<b>Total</b>	<b>17.2</b>	<b>6.7</b>	<b>-16.7%</b>

**Textiles and clothing:**

Export-oriented activities will be much encouraged.

In principle, public sector investments will be made only for maintenance, renewal and expansion of existing plants. Exceptions may, however, be made in cases of export-oriented projects.



**Domestic Demand Estimates (as of 1965 season)**

	1967		1972		Average annual increase			
	Quantity	Millions U.S.	Quantity	Millions U.S.	Millions U.S.	% of available	%	
Cotton bales	Million metres	712	332.6	Million metres	1,030	588.5	7.7%	9.0%
Woolen bales	000 metres	23,584	132.1	000 metres	28,542	167.8	3.9%	4.9%
Wool-cotton combed	000 m <sup>2</sup>	2,085	36.1	000 m <sup>2</sup>	3,099	56.7	8.3%	9.0%
Apparel of 12 bales	000 m	27,600	19.0	000 m	35,300	25.5	5.1%	6.2%
Restroom	Tons	2,500	55.5	Tons	6,000	133.2	19.2%	19.2%
Others	-	299.4	299.4	-	390.2	390.2	-	3.2%
Total	N.A.	874.6	874.6	N.A.	1,261.9	1,261.9	N.A.	8.2%

Production Targets

Commodity Group	1967		1972		Average annual increase	Value
	Quantity	Million \$ U.S.	Quantity	Million \$ U.S.		
Cotton textiles	732 Million metres	335.9	1,095 Million metres	541.8	8.9%	10.0%
Woolen textiles	23,994 000 metres	132.2	28,577 000 metres	168.1	3.9%	4.9%
Hand-loomed carpets	2,176 000 m <sup>2</sup>	37.0	3,349 000 m <sup>2</sup>	61.0	9.0%	10.1%
Artificial silk textiles	27,600 000 m	19.0	35,300 000 m	25.5	5.0%	6.2%
Knitwear	2,550 Tons	56.6	6,700 Tons	148.7	21.2%	21.2%
Others	-	295.6	-	393.5	-	5.9%
<b>Total</b>	<b>n.a.</b>	<b>876.3</b>	<b>n.a.</b>	<b>1,338.7</b>	<b>-</b>	<b>8.9%</b>

Investment Estimates  
(million \$ U.S.)

1963-1967	173.5
1968-1972	266.4

**Export Estimates**  
(million \$ U.S.)

Quantity/Value	Quantity		Value		Average annual increase		
	1967	1972	1967	1972			
Cotton textiles	20	1.30	Million metres	65	13.3	27.0%	32.0%
Woolen textiles	30	0.05	000 metres	35	0.2	38.5%	27.5%
Wool-cotton carpets	91	1.60	000 m <sup>2</sup>	250	4.3	22.6%	22.8%
Artificial silk textiles	-	-	000 m	-	-	-	-
Shirts	50	1.10	Thousands	700	15.5	-	-
Others	-	3.50	-	-	18.8	-	40.0%
<b>Total</b>	<b>n.a.</b>	<b>9.60</b>	<b>n.a.</b>	<b>52.1</b>	<b>-</b>	<b>-</b>	<b>41.0%</b>

- 167 -

**Imports**  
(million \$ U.S.)

Quantity	1967	1972	Average annual increase
	7.3	8.9	3.5%

**Final and final products:**

Facilities will be established to produce at world market quality and standards. Exports will accordingly be placed on exports.



Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022																																																																																																								
Average Annual Income	2,479	2,500	2,520	2,540	2,560	2,580	2,600	2,620	2,640	2,660	2,680	2,700	2,720	2,740	2,760	2,780	2,800	2,820	2,840	2,860	2,880	2,900	2,920	2,940	2,960	2,980	3,000	3,020	3,040	3,060	3,080	3,100	3,120	3,140	3,160	3,180	3,200	3,220	3,240	3,260	3,280	3,300	3,320	3,340	3,360	3,380	3,400	3,420	3,440	3,460	3,480	3,500	3,520	3,540	3,560	3,580	3,600	3,620	3,640	3,660	3,680	3,700	3,720	3,740	3,760	3,780	3,800	3,820	3,840	3,860	3,880	3,900	3,920	3,940	3,960	3,980	4,000	4,020	4,040	4,060	4,080	4,100	4,120	4,140	4,160	4,180	4,200	4,220	4,240	4,260	4,280	4,300	4,320	4,340	4,360	4,380	4,400	4,420	4,440	4,460	4,480	4,500	4,520	4,540	4,560	4,580	4,600	4,620	4,640	4,660	4,680	4,700	4,720	4,740	4,760	4,780	4,800	4,820	4,840	4,860	4,880	4,900	4,920	4,940	4,960	4,980	5,000	5,020	5,040	5,060	5,080	5,100	5,120	5,140	5,160	5,180	5,200	5,220	5,240	5,260	5,280	5,300	5,320	5,340	5,360	5,380	5,400	5,420	5,440	5,460	5,480	5,500	5,520	5,540	5,560	5,580	5,600	5,620	5,640	5,660	5,680	5,700	5,720	5,740	5,760	5,780	5,800	5,820	5,840	5,860	5,880	5,900	5,920	5,940	5,960	5,980	6,000

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**NOTE:**

The long-run objective is the export of finished and semi-finished paper products.

In order to reduce the cost of raw materials, co-ordination with the forestry department will take place in regions where the paper industry is or will be established.

Trees will be grown according to the technology used by the installations in industrial regions.

The forest ground in paper-mill regions will be reserved for industrial purposes.

There will be a special project in which the utilization of forests and the construction and supervision activities of the Forestry and Paper Organization will be carried by the Forestry Department.



**Domestic Annual Production for Different Varieties of Paper (at 1965 prices)**

	1967		1972		Average annual production
Quantity, million	1967	1972	1967	1972	1967-72
Writing and printing paper	48	15.1	60	30.9	14.05
Newsprint	46	7.0	76	14.4	20.25
Wrapping paper	88	23.4	177	65.8	25.05
Cardboard	36	11.1	65	23.2	20.05
Total	218	56.6	378	134.3	13.05

**Production Trends for Different Varieties of Paper (at 1965 producer prices)**

	1967		1972		Average annual production
Quantity, million	1967	1972	1967	1972	1967-72
Writing and printing paper	48	15.1	60	30.9	14.05
Newsprint	46	7.0	76	14.4	20.25
Wrapping paper	88	23.4	177	65.8	25.05
Cardboard	36	11.1	65	23.2	20.05
Total	218	56.6	378	134.3	13.05

Source: Bureau of Economic Analysis, Department of Commerce, Washington, D.C.



**Printing**

No printing offices will be established by public organizations.

**Printing Office Statistics (in 1923 system)**

(Million \$ U.S.)

Year: 1923

Category	1921	1922	Average
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**INVESTMENT STATEMENTS**

(in millions of U.S.)

1959-1967

37.9

1968-1974

22.2

(U.S. dollars)

**INVESTMENT STATEMENTS**

(in millions of U.S.)

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37.9

1968-1974

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(U.S. dollars)

**INVESTMENT STATEMENTS**

**Leather Industry**

Processed and semi-processed leather will be exported  
in relation to improvements in capacity and technical methods.

Leather and skin processing units centralized in Huala-forno  
(Potenza) will be relocated on the Austrian side of the city  
in order to increase the capacity and to facilitate exports to  
Europe.

**Leather Industry**

(in millions U.S.)

Year	Production	Exports	Imports
1950	100	10	5
1951	110	12	6
1952	120	15	7
1953	130	18	8
1954	140	20	9
1955	150	22	10
1956	160	25	11
1957	170	28	12
1958	180	30	13
1959	190	32	14
1960	200	35	15

Production of leather and skins in the region of Potenza (Italy) is expected to increase significantly in the coming years, reaching a level of 200 million U.S. dollars by 1960. This increase is due to the relocation of the leather processing units on the Austrian side of the city, which will allow for an expansion of the production capacity and an improvement in the technical methods used. The increase in production will also lead to a corresponding increase in exports, which are expected to reach 35 million U.S. dollars by 1960. Imports are also expected to increase, reaching 15 million U.S. dollars by 1960.

**International Reserves**  
(million U.S.D.)

1963-1967                      2.3  
1968-1972                      28.6

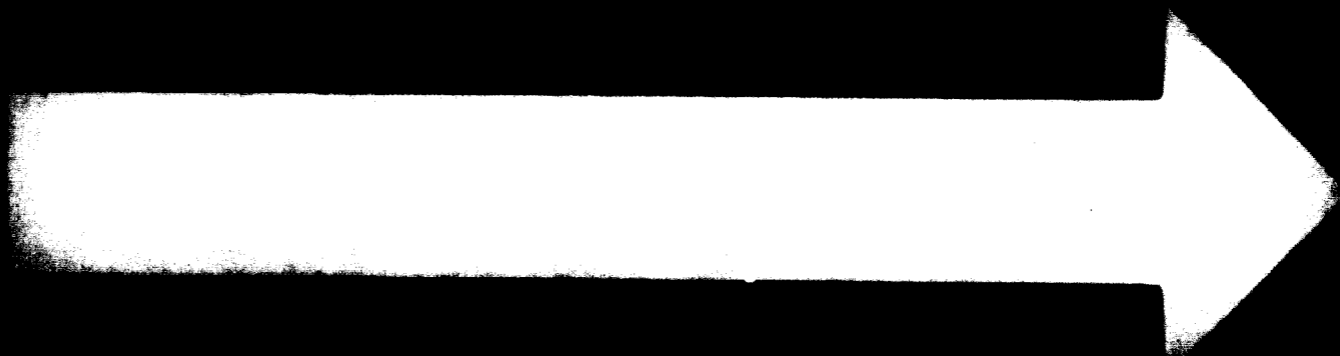
**International Reserves**  
(million U.S.D.)

*(The following table is extremely dark and illegible due to heavy noise and contrast in the scan. It appears to be a multi-column table with several rows of data.)*

Year	Value	Average annual increase
1917	6.0%	6.0%
1918	7.0%	7.0%
1919	10.2%	10.2%
1920	3.0%	3.0%
1921	10.0%	10.0%
1922	9.0%	9.0%

Year	Value	Average annual increase
1917	6.0%	6.0%
1918	7.0%	7.0%
1919	19.2%	19.2%
1920	3.0%	3.0%
1921	16.0%	16.0%
1922	10.2%	10.2%

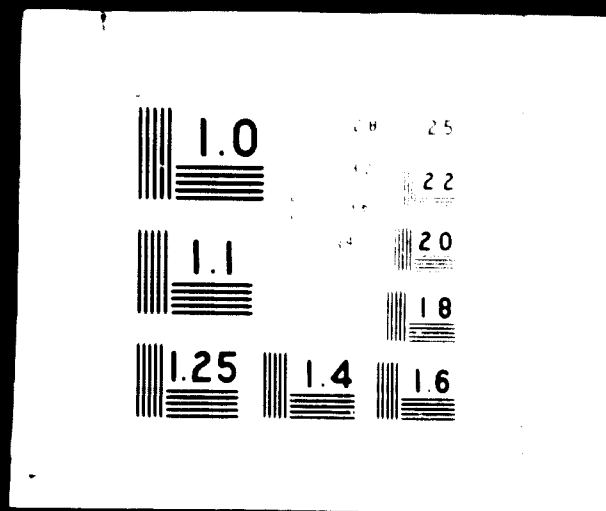
(See 1923, 1924, 1925, 1926)





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Investment Estimates

(million \$ U.S.)

1963-1967	477.7
1968-1972	777.0

Import Estimates

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Other rubber products	14.4	17.8	4.2%

Plastic Processing:

During the Plan period, the import of several plastic products will be discontinued; raw materials will be locally produced.

Standardization of plastic products will be realized.

Training programmes will be organised in co-operation with industrialists.

Domestic Demand Estimates

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Plastic goods and products	40.0	88.8	17.3%

Investment Estimates

(million \$ U.S.)

1963-1967	120.2
1968-1972	260.9

Chemicals:

Small unproductive establishments of the private sector will be integrated into larger establishments to ensure their survival.

The state will support the technological research.

Training of engineers, chemists, technicians, etc. will be given high priority.

In the pharmaceutical sector:

- Foreign capital will be allowed in the production of active drug materials only when not restricting domestic industry.
- Foreign capital will not be permitted in the production of new patent medicines.

The quality of agricultural insecticides and drugs will be controlled; legal and administrative measures will be enforced to prevent the import, production and distribution of impure drugs.

Domestic Demand

(tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
<b>Basic chemical materials:</b>			
Soda	50,000	85,000	11.2%
Caustic soda	35,000	62,000	12.1%
Sulphuric acid (100%)	130,000	1,000,000	50.4%
Salt	480,000	540,000	2.0%
<b>Other chemical materials used in industry:</b>			
Sodium bicarbonate	8,500	13,000	6.8%
Sodium perborate	1,300	2,800	17.0%
Sodium phosphate	5,000	16,000	26.2%
Ammonium nitrate (technical)	5,000	7,300	7.0%
Carbide	10,000	16,400	10.4%
Titanic dioxide	3,500	8,000	18.0%
Zinc oxide	2,800	4,000	7.4%
Chlorine	10,600	41,300	31.2%
Phosphoric acid (other than fertiliser production)	350	13,500	107.6%
Acetic acid	900	2,300	20.6%
Ethyl alcohol	25	31	4.4%
Benzene	8,350	40,000	37.0%
Xylene	1,250	8,400	46.3%
Phthalic anhydride	3,000	7,000	18.4%
Phenol	1,000	3,500	28.5%
Caprolactam	-	10,900	-
Acrylonitrile	-	3,900	-
Dimethyl terephthalate	-	5,850	-
Ethylene glycol	-	3,200	-
Dodecyl benzene	2,800	8,700	25.4%
<b>Chemical fertilisers:</b>			
Nitrogen (20% N)	1,064,000	1,500,000	20.2%
Phosphorus (18% P <sub>2</sub> O <sub>5</sub> )	600,000	2,430,000	18.0%
Potassium (50% K <sub>2</sub> O)	36,000	60,000	10.8%
<b>Dyes:</b>			
Textile dyes	3,000	4,000	5.9%
<b>Plastics, plasticisers, synthetic rubber and carbon-black:</b>			
Polyvinyl chloride	13,000	31,000	18.8%
Polyethylene	6,000	14,000	18.4%

g/ Million litres

Domestic Demand (continued)  
(tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Polystyrene	5,000	11,000	17.1%
Formaldehyde plastics	3,000	5,500	10.3%
Polyvinyl acetate	3,200	6,500	15.2%
Plasticisers	4,300	10,500	19.5%
Synthetic rubber	2,500	12,500	14.2%
Carbon-black	2,500	14,600	11.4%
<b>Artificial and synthetic yarn and fibres:</b>			
Rayon	5,200	8,000	9.0%
Viscon	7,500	13,000	11.6%
Polyamide yarn and fibre	4,300	9,700	17.8%
Polyacrylonitril yarn and fibre	1,650	3,600	16.8%
Polyester yarn and fibre	2,500	5,200	15.8%
<b>Industrial oils:</b>			
Oil cake	10,800	16,800	9.3%
Tallow	26,500	20,000	5.8%
<b>Paints and varnishes:</b>			
Paints	13,600	21,900	10.0%
Varnishes	2,500	3,500	7.0%
<b>Soups and detergents:</b>			
Detergent preparations	96,000	95,000	-0.2%
	18,000	55,000	25.0%
Medical drugs	67 <sup>e</sup>	102 <sup>e</sup>	8.7%
Agricultural insecticides and drugs	24,600	31,700	5.2%
<b>Other commodities:</b>			
Vallex	4,900 <sup>ee</sup>	5,200 <sup>ee</sup>	1.2%
Matches	735	875	3.6%
Chemical sector, total value of domestic demand (at 1965 prices)	426 <sup>e</sup>	854 <sup>e</sup>	15.0%

<sup>e</sup>/ Million \$ U.S.

<sup>ee</sup>/ Million boxes

Production Targets

(tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
<b>Basic chemical materials:</b>			
Soda	-	65,000	-
Caustic soda	12,000	46,000	31.0%
Sulphuric acid (100%)	50,000	1,000,000	82.1%
Salt	500,000	740,000	8.2%
<b>Other chemical materials used in industry:</b>			
Sodium phosphates	-	10,000	-
Sodium bicarbonate	-	13,000	-
Sodium perborate	-	2,800	-
Ammonium nitrate (technical)	5,000	7,300	7.8%
Carbide	10,000	16,400	10.4%
Chlorine	10,600	41,300	31.2%
Borax	3,000	20,000	46.2%
Boric acid	1,000	26,000	21.9%
Phosphoric acid (other than fertilizer production)	-	13,500	-
Acetic acid	900	2,300	20.6%
Ethyl alcohol	25	31	4.4%
Benzene	11,000	40,000	29.5%
Xylene	500	800	11.9%
Phthalic anhydride	-	7,000	-
Phenol	150	3,500	87.7%
Caprolactam	-	10,900	-
Dodecyl benzene	-	8,700	-
<b>Chemical fertilizers:</b>			
Nitrogen (20% N)	160,000	1,500,000	56.4%
Phosphorus (18% P <sub>2</sub> O <sub>5</sub> )	250,000	2,430,000	57.6%
<b>Dyes:</b>			
Textile dyes	800	2,600	26.5%
<b>Plastic, plasticizers, synthetic rubber and carbon-black:</b>			
Polyvinyl chloride	-	27,000	-
Polyethylene	-	12,500	-
Polystyrene	-	10,000	-
Formaldehyde plastics	-	5,500	-
Polyvinyl acetate	3,200	6,500	15.2%
Plasticizers	4,000	10,500	21.3%
Synthetic rubber	-	15,000	-
Carbon-black	-	14,000	-

\* / Million litres

Production Targets (continued)  
(tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
<b>Artificial and synthetic yarn and fibres:</b>			
Rayon	650	3,500	40.1%
Viscon	1,050	8,000	50.1%
Polyamide yarn and fibre	2,700	9,700	29.1%
Polyacrylonitril yarn and fibre	-	3,600	-
Polyester yarn and fibre	-	5,200	-
<b>Industrial oils:</b>			
Oil cake	10,800	16,800	9.3%
Tallow	7,200	8,500	3.4%
<b>Paints and varnishes:</b>			
Paints	13,400	21,800	10.3%
Varnishes	2,250	3,300	8.0%
<b>Soaps and detergents:</b>			
Soaps	96,000	95,000	-0.2%
Detergent preparations	18,000	55,000	25.0%
Medical drugs	66 <sup>*</sup>	103 <sup>*</sup>	9.2%
Agricultural insecticides and drugs	22,680	30,725	6.2%
<b>Other commodities:</b>			
Vallex	9,200 <sup>oo</sup>	9,000 <sup>oo</sup>	-0.4%
Matches	735	875	3.6%
Chemical sector, total value of domestic demand (at 1965 prices)	246 <sup>*</sup>	644 <sup>*</sup>	21.2%

<sup>\*</sup>/ Million \$ U.S.

<sup>oo</sup>/ Million boxes

**Investment Estimates**

(million \$ U.S.)

1963-1967	203
1968-1972	472

**Export Estimates**

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Vallex	0.5	0.4	-2.5%
Liquoric extract	0.7	0.8	1.8%
Attar of roses	0.5	0.7	5.7%
Pharmaceuticals	0.4	2.2	38.0%
Borax	0.3	2.2	46.2%
Boric acid	0.2	4.3	91.9%
Other materials	1.3	1.6	4.8%
<b>Total</b>	<b>3.9</b>	<b>12.2</b>	<b>25.7%</b>

**Import Estimates**

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Total chemical products	183.1	222.0	3.9%

**Petroleum products:**

All public establishments concerned with petroleum exploration, transportation, distribution and selling will be merged into one organization.



Production will be organized so as to require the minimum foreign exchange disbursement.

New installations will be established by the public sector.

The legislation on petroleum will be re-examined, taking into consideration Turkey's national interest.

Refining costs will be reduced through lower prices of imported crude petroleum. An increased tax revenue will explain the maintenance of the same selling price.

The state will provide the necessary quality control.

Petroleum will be imported only when the domestic production is not sufficient to satisfy the local demand.

Domestic Demand Estimates for Petroleum Products  
(at 1965 main stock custom duty paid prices)

<u>Commodity Group</u>	<u>1967</u>		<u>1972</u>		<u>Average annual increase of quantity value</u>
	<u>000 tons</u>	<u>000 \$ U.S.</u>	<u>000 tons</u>	<u>000 \$ U.S.</u>	
Liquid petroleum gas	100	9,244.1	175	16,132.4	13.4%
Gasoline	230	105,949.5	1,100	124,490.7	6.0%
Kerosene	-	-	300	4,995.0	-
Jet fuel	460	38,039.7	550	45,410.1	3.5%
Diesel oil	95	9,435.0	140	13,986.0	8.2%
Fuel oil No. 4, 5 and 6	1,360	114,425.5	2,400	196,470.0	11.7%
Solvents	1,900	41,125.5	3,700	80,031.0	14.2%
Asphalt	3	288.6	5	499.5	11.3%
Lubricants	140	6,993.0	300	14,985.0	16.2%
Others	85	10,844.7	130	17,760.0	10.4%
	11	1,343.1	20	2,553.0	12.7%
<b>Total</b>	<b>5,004</b>	<b>337,668.7</b>	<b>8,820</b>	<b>535,312.7</b>	<b>9.7%</b>

Output Estimates for Petroleum Products  
(at 1965 main stock custom duty paid prices)

<u>Commodity Group</u>	<u>1967</u>		<u>1972</u>		<u>Average annual increase of quantity value</u>
	<u>000 tons</u>	<u>000 \$ U.S.</u>	<u>000 tons</u>	<u>000 \$ U.S.</u>	
Liquid petroleum gas	100	9,224.1	175	16,139.4	13.6%
Gasoline	830	105,905.1	1,150	148,962.0	7.0%
Kerosene	50	832.5	300	4,995.0	44.0%
Jet fuel	460	38,039.7	550	47,630.1	3.5%
Motor oil	95	9,435.0	140	13,986.0	8.2%
Blended oil	1,400	115,995.0	2,500	205,350.0	12.1%
Fuel oil No. 4, 5 and 6	2,100	45,399.0	3,800	82,251.0	12.6%
Solvents	3	288.6	5	499.5	11.3%
Asphalt	140	6,993.0	300	14,985.0	16.2%
Others	50	555.0	180	1,098.0	29.2%
<b>Total</b>	<b>5,228</b>	<b>332,667.0</b>	<b>9,100</b>	<b>534,576.0</b>	<b>9.9%</b>

Investment Estimates

(million \$ U.S.)

1963-1967	86.9
1968-1972	127.6

Exports  
(million \$ U.S.)

	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
	31.3	-	-

Petroleum Products' Imports  
(at 1965 import prices)

<u>Commodity groups</u>	<u>1967</u>		<u>1972</u>		<u>Average annual increase of quantity</u>	<u>value</u>
	<u>000 tons</u>	<u>000 \$ U.S.</u>	<u>000 tons</u>	<u>000 \$ U.S.</u>		
Airplane gasoline	3.0	116.6	5.0	194.2	9.3%	
Jet fuel	10.0	388.5	-	-	-	
Automobile gasoline	-	-	-	-	-	
Kerosine	-	-	-	-	-	
Diesel oil	-	-	-	-	-	
Fuel oil No. 4, 5 and 6	-	-	-	-	-	
Solvents	-	-	-	-	-	
Lubricants	85.0	10,844.7	130.0	17,760.0	10.4%	
Paraffin - Vaseline	0.4	57.7	0.8	139.6	19.1%	
Others	7.6	710.4	14.2	1,332.0	13.4%	
<u>Total</u>	<u>106.0</u>	<u>12,117.9</u>	<u>147.0</u>	<u>19,425.0</u>	<u>9.9%</u>	

Ceramics:

The surplus production will be exported.

Public and private sectors will co-operate to improve raw material sources and to determine the amount of reserves.

Measures will be taken to develop the Kutahya chinaware.

Domestic Demand Estimates

<u>Commodity Group</u>	<u>1967</u>		<u>1972</u>		<u>Average annual increase of quantity value</u>
	<u>000 tons</u>	<u>Million \$ U.S.</u>	<u>000 tons</u>	<u>Million \$ U.S.</u>	
Porcelain dining and ornamental hardware	3.500	1.90	6.10	3.4	12.0%
Sanitary equipment	5.000	4.40	9.60	8.5	14.0%
Ceramic tiles	10.500	0.30	16.10	0.4	9.0%
Floor tiles	10.800	5.00	15.90	7.4	8.0%
Industrial and laboratory materials	0.025	0.03	0.05	0.1	27.1%
<b>Total</b>	<b>29.800</b>	<b>11.60</b>	<b>47.80</b>	<b>19.8</b>	<b>11.3%</b>

Production Targets

<u>Commodity groups</u>	<u>1967</u>		<u>1972</u>		<u>Average annual increase of quantity</u>
	<u>000 tons</u>	<u>Million \$ U.S.</u>	<u>000 tons</u>	<u>Million \$ U.S.</u>	
Porcelain dining and ornamental houseware	3.6	2.1	6.6	3.9	12.9%
Sanitary equipment	5.5	5.0	11.8	10.6	16.5%
Ceramic tiles	10.5	0.3	16.4	0.6	9.3%
Floor tiles	10.8	5.1	16.6	7.7	9.0%
Industrial and laboratory materials	-	-	0.05	0.2	-
<b>Total</b>	<b>30.4</b>	<b>12.4</b>	<b>51.4</b>	<b>23.0</b>	<b>11.0%</b>

Investment Estimates  
(million \$ U.S.)

1963-1967	32.2
1968-1972	4.4

**Smart Estimates**

Commodity Group	1967	1972	Average annual
	000 tons	Million \$ U.S.	increase
Plasticine clinking and ornamental hardware	-	0.3	-
Sanitary equipment	0.35	1.9	40.8%
Floor tiles	-	0.5	-
<b>Total</b>	<b>0.35</b>	<b>2.7</b>	<b>40.8%</b>

**Smart**  
(million \$ U.S.)

1967	1972	Average annual
0.35	-	-



Glass and glass products:

Production targets will be realized through domestic private capital.

A market research will be undertaken to further export promotion.

**Domestic Personal Expenditures**

	1972		1971		Average annual increase
	1972	1971	1972	1971	1972
	Billions of U.S. dollars		Billions of U.S. dollars		%
<b>Total</b>	15.8	13.7	15.1	21.0	3.2%
Durable goods	5.4	5.0	6.2	11.3	6.2%
Nondurable goods	9.2	11.0	5.2	14.3	6.8%
Personal care items	7.7	2.0	13.3	5.0	11.2%
Non-durable consumption	6.6	1.1	5.6	1.6	4.0%
Durable goods consumption	1.0	0.9	1.0	1.4	13.8%
Total	3.0	1.5	12.0	6.0	32.0%
Total	1.0	0.5	1.5	1.0	13.8%
Total	1.5	0.5	3.0	1.1	19.0%
<b>Total</b>	129.1	69.0	100.0	69.2	5.3%

**Production Statistics**

	1971	1972	Average annual increase
	Million U.S. Dollars	Million U.S. Dollars	% of quantity
<b>Total</b>	17.7	27.5	25.0
Construction contracts	67.6	100.0	17.5
Construction in progress	69.0	52.3	30.1
Construction completed	-	14.6	55.0
Construction contracts	5.0	6.2	1.7
Construction in progress	-	2.1	1.7
Construction completed	1.3	1.6	6.7
Construction contracts	-	2.1	1.1
Construction in progress	1.5	1.5	0.5
Construction completed	13.1	20.6	49.7

**Production Statistics**

(million U.S.)

1953-1967	19.3
1968-1972	26.6

**Income Statement**

	1972		1971		Average Annual
	Millions of U.S. Dollars	Millions of U.S. Dollars	Millions of U.S. Dollars	Millions of U.S. Dollars	Income
Net Sales	6.7	6.2	6.9	6.6	71.7%
Cost of Sales	3.2	2.9	3.0	3.0	5.9%
Gross Profit	3.5	3.3	3.9	3.6	13.2%
Operating Expenses	1.0	1.0	1.0	1.0	-
Operating Income	2.5	2.3	2.9	2.6	10.7%
Income Taxes	0.1	0.1	0.1	0.1	-
Net Income	2.4	2.2	2.8	2.5	-

Millions of U.S. Dollars

Net Sales	6.7	6.2	6.9	6.6
Cost of Sales	3.2	2.9	3.0	3.0
Gross Profit	3.5	3.3	3.9	3.6
Operating Expenses	1.0	1.0	1.0	1.0
Operating Income	2.5	2.3	2.9	2.6
Income Taxes	0.1	0.1	0.1	0.1
Net Income	2.4	2.2	2.8	2.5

**CONCLUSIONS:**

The export production will be increased.

A pre-project exchange of information and co-ordination will be provided between investing institutions in order to improve productivity.

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**INDEX**  
(million \$ U.S.)

<b>1967</b>	<b>1972</b>	<b>Average annual increase</b>
2.2	-	-

**CONCLUSIONS AND GENERAL RECOMMENDATIONS:**

Without lowering the quality, the use of economic construction materials will be encouraged.

**Investment Program Expenditures**

	1957		1972		Average annual increase
	Quantity	Value \$ mil.	Quantity	Value \$ mil.	% of quantity
<b>Construction total</b>	1,438	28.6	1,400	19.1	6.7%
Civil	750	11.1	600	11.1	7.0%
Industrial	67	7.5	100	12.7	11.0%
Defense contract plants	607	9.5	700	12.2	7.0%
Commercial plants	1	2.3	0	4.0	11.3%
Overseas plants	100	0.4	500	1.4	13.0%
<b>Construction elements of light contracts</b>	30	0.5	50	0.3	13.0%
<b>Light contracts total</b>	45	0.7	50	1.4	11.6%
<b>Total</b>		59.7		24.5	7.7%

**Investment Program**

(million \$ U.S.)

1953-1957	6.7
1958-1972	21.0



Iron and steel:

An Iron and Steel Board will be established with the co-operation of private and public sectors. The functions will be:

- to provide the necessary co-ordination amongst different establishments;
- to carry out technological research;
- to collect statistical information;
- to promote standardisation and publications.

The measures to reduce production costs of finished and semi-finished goods will be investigated.

Domestic Demand Estimates

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Finished products' demand	252	476	13.6%
Semi-finished products' demand	61	131	16.6%
Total	<u>313</u>	<u>607</u>	<u>14.2%</u>

Domestic Demand Estimates of Finished Products

(000 tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Rods	324.0	580.0	12.0%
Heavy beams	32.0	60.0	13.0%
Light beams	9.0	160.0	12.0%
Railroad equipment	33.0	70.0	16.0%
Wire	62.0	108.0	12.0%
Sheet metal	16.0	27.0	11.0%
Hot plate	80.0	148.0	13.0%
Cold plate	52.0	169.0	26.0%
Galvanized plate	28.0	61.0	13.0%
Tin plate	17.0	26.0	10.0%
Strips and bars	17.0	26.0	9.0%
Seamed pipes and equipment	55.0	95.0	12.0%
Rolled steel pipes and equipment	25.0	25.0	-
Machinery and tool steel	59.0	108.0	13.0%
Pig-iron pipes and equipment	39.0	69.0	12.0%
Pig-iron casting parts	115.0	205.0	13.0%
Steel casting parts	14.5	40.0	22.0%
Tempered spherical and similar casting parts	2.0	12.0	44.0%
Others	2.5	4.0	9.0%
Total	<u>1,090.0</u>	<u>2,035.0</u>	<u>13.4%</u>

Domestic Demand Estimates of Semi-finished Products

(000 tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Total blast furnace products	1,050	2,050	14.0%
All types of pig-iron	160	330	16.0%
Liquid metal for steel mills	890	1,720	14.0%
Billets and steel ingots	1,100	2,180	15.0%
Bloom	520	1,000	14.0%
Sheet bars	25	55	17.1%
Wire rods	66	115	12.0%
Steel strips	78	135	12.0%

Production Targets

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Total value of iron and steel products	220	416	14.0%
Intersectoral semi-finished intermediary goods market value	49	83	11.0%
Total value of the sector output	269	499	13.0%

Production Tonnage

(000 tons)

<u>Commodity group</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Rods	324	580	12.0%
Heavy beams	25	25	-
Light beams	75	100	6.0%
Railroad equipment	10	10	-
Wire	60	108	13.0%
Sheet metal	13	30	18.0%
Hot plate	80	120	11.0%
Cold plate	50	120	19.0%
Galvanized plate	-	40	-
Tin plate	35	68	17.0%
Strips and bars	-	15	-
Seamed pipes and equipment	60	111	13.0%
Rolled steel pipes and equipment	-	22	-
Machinery and tool steel	40	80	15.0%
Pig-iron pipes and equipment	28	35	5.0%
Pig-iron casting parts	115	205	12.0%
Steel casting parts	14	35	21.0%
Tempered spherical and similar casting parts	2	10	38.0%
Others	2	4	11.0%
Total	<u>933</u>	<u>1,618</u>	<u>12.0%</u>

Production Targets

(000 tons)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Total blast furnace products	950	1,450	13.0%
All types of pig-iron	160	170	2.0%
Liquid metal for steel mills	790	1,280	10.0%
Billets and steel ingots	980	1,650	11.0%
Bloom	420	600	8.0%
Sheet bars	55	55	-
Wire rods	66	155	12.0%
Steel strips	75	150	15.0%

Investment Estimates

(million \$ U.S.)

1963-1967	305
1968-1972	466

Import Estimates

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Total semi-finished products	11.9	47.7	33.0%
Total finished products	32.5	59.9	13.0%
Grand total	44.4	107.7	19.0%

**Import Statistics**  
(000 tons)

<u>COMMODITY GROUP</u>	<u>1967</u>	<u>1972</u>	<u>Average annual</u>
Rods	-	-	-
Heavy beams	26	15	7.0
Light beams	-	60	-
Railroad equipment	21	60	16.0
Wire	2	-	-
Sheet metal	1	-	-
Hot plate	-	28	-
Cold plate	2	49	13.0
Galvanized plate	26	22	4.0
Tin plate	7	-	-
Strips and bars	17	11	4.0
Seamed pipes and equipment	-	-	-
Rolled steel pipes and equipment	25	10	9.0
Machinery and tool steel	19	28	25.0
Pig-iron pipes and equipment	11	16	25.0
Pig-iron casting parts	-	-	-
Steel casting parts	-	1	-
Tempered spherical and similar casting parts	-	2	-
Others	-	-	-
<b>Total</b>	<b>161</b>	<b>162</b>	<b>16.2%</b>

**STEEL PRODUCTS**

1977-1978

<b>PRODUCT GROUP</b>	<b>1977</b>	<b>1978</b>	<b>PERCENTAGE CHANGE</b>
Total steel products			
All types of pipe		10%	
Liquid metal pipe steel coils			
Billions and steel pipes			
Plate	10%	8%	-2%
Sheet bars			
Wire rods			
Total steel			

**Non-ferrous metals:**

The goal is to replace the exports of non-ferrous and finished export goods.

The possibility of producing non-ferrous, lead, zinc and other similar metals will be evaluated.

In important sections of copper, brass, rolling brass and bronze demand is for domestic production. To a large extent, scrap metal is used for this purpose.

**UNITED STATES DEPARTMENT OF AGRICULTURE**

1917

UNITED STATES DEPARTMENT OF AGRICULTURE	1917	1916	1915
Wheat	100.0	100.0	100.0
Barley	100.0	100.0	100.0
Oats	100.0	100.0	100.0
Rye	100.0	100.0	100.0
Triticum	100.0	100.0	100.0
Other grains	100.0	100.0	100.0
Total	100.0	100.0	100.0

**UNITED STATES DEPARTMENT OF AGRICULTURE**

1917

UNITED STATES DEPARTMENT OF AGRICULTURE	1917	1916	1915
Wheat	100.0	100.0	100.0
Barley	100.0	100.0	100.0
Oats	100.0	100.0	100.0
Rye	100.0	100.0	100.0
Triticum	100.0	100.0	100.0
Other grains	100.0	100.0	100.0
Total	100.0	100.0	100.0



**Production Report**  
Bottom 0 1.8.

Item	1952	1953	1954
Total production value of finished products	10.0	10.0	10.0
Value of uncompleted production work	1.0	1.0	1.0
Total	11.0	11.0	11.0

**Production Report for Production Unit**  
1954

Item	1952	1953	1954
Total value of finished products	10.0	10.0	10.0
Value of uncompleted production work	1.0	1.0	1.0
Total	11.0	11.0	11.0
Value of finished products	10.0	10.0	10.0
Value of uncompleted production work	1.0	1.0	1.0
Total	11.0	11.0	11.0

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**TABLE 1**

The following table shows the percentage of respondents who reported that they had used the following services in the past 12 months:

The following table shows the percentage of respondents who reported that they had used the following services in the past 12 months:

The following table shows the percentage of respondents who reported that they had used the following services in the past 12 months:

The following table shows the percentage of respondents who reported that they had used the following services in the past 12 months:

**TABLE 2**

Percentage of respondents

Service	Male	Female	Total
Internet	78%	72%	75%
Mobile phone	85%	80%	82%
Television	92%	88%	90%
Radio	95%	90%	92%

**TABLE 3**

Percentage of respondents

Service	Male	Female	Total
Internet	75%	70%	72%
Mobile phone	82%	78%	80%
Television	90%	85%	87%
Radio	93%	88%	90%

**Statement of the Board of Directors**  
ending 31.12.1958

Assets 10.1  
Liabilities 10.1

**Statement of the Board of Directors**  
ending 31.12.1958

Assets 10.1  
Liabilities 10.1  
Reserves 10.1

**Statement of the Board of Directors**  
ending 31.12.1958

	1958	1957	1956
Assets	10.1	10.1	10.1
Liabilities	10.1	10.1	10.1
Reserves	10.1	10.1	10.1
Total	20.2	20.2	20.2

**Notes:**

1. The company's activities will be carried out in the form of a limited liability company and to ensure the company's objectives.

2. The company's financial statements will be prepared and audited.

**MANUFACTURING EXPENDITURES**

(in \$ million)

<b>MANUFACTURING EXPENDITURES</b>	<b>1971</b>	<b>1972</b>	<b>Average annual 1971-1972</b>
Tools and production equipment and other fixtures	17.7	20.0	18.85
Constructive, prod. construction and other machinery, etc.	8.5	102.1	55.30
Internal production engines and other power generating equipment		60.7	30.35
Other industry machinery and equipment	21.7	24.7	23.20
Machine tools, hand tools, etc.	11.9	11.0	11.45
Compressors, ventilators, pumps and turbines	20.0	0.1	10.05
Food and beverage processing machinery	10.1	20.0	15.05
Air conditioning, heating units and equipment	1.5	15.0	8.25
Vehicle machinery	22.0	10.0	16.00
Roll-forming, gear and gear boxes and transmission parts	20.0	22.2	21.10
Automotive parts	0.0	0.1	0.05
Others	20.5	100.1	60.30
<b>Total</b>	<b>120.0</b>	<b>326.3</b>	<b>223.25</b>

**INDUSTRIAL EXPORTS**

(million \$ U.S.)

<b>CATEGORY GROUP</b>	<b>1967</b>	<b>1972</b>	<b>Average annual percentage</b>
Steam and gas-turbine equipment and steam boilers	5.7	25.5	24.0%
Construction, road, excavation and mining machinery, etc.	4.5	36.6	30.6%
Internal combustion engines and other power generating machinery	1.7	31.1	75.0%
Heavy industry machinery and equipment	4.5	22.2	37.4%
Machine tools, hand tools, accessories and equipment	5.4	12.2	17.5%
Compressors, ventilators, pumps and turbines	2.7	26.4	55.8%
Food and beverage processing machinery	4.0	14.4	29.2%
Air conditioning and heating installations and machinery	4.3	7.8	12.3%
Textile machinery	5.0	23.3	37.0%
Intermediary goods for production	5.9	26.6	35.4%
Consumer goods	45.5	81.0	18.2%
Others	48.5	83.2	11.3%
<b>Total</b>	<b>145.9</b>	<b>388.3</b>	<b>21.7%</b>

Investment Estimates

(million \$ U.S.)

1963-1967	33.5
1968-1972	172.0

Exports

(million \$ U.S.)

<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
1.6	9.3	43.2%

Import Estimates

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Steam and gasoline equipment	9.2	31.9	28.0%
Construction, road, excavation and mining machinery	29.3	66.2	17.7%
Internal combustion engines and other power generating machinery	25.6	30.1	3.2%
Heavy industry machinery and equipment	17.2	53.3	25.5%
Machine tools, hand tools, accessories and equipment	9.2	21.2	18.2%
Compressors, ventilators, pumps and turbines	18.1	39.7	17.0%
Food and beverage processing machinery	10.3	12.6	3.9%
Air conditioning and heating installations and machinery	5.2	7.5	7.6%
Textile machinery	17.0	11.4	-7.7%
Intermediary goods for production	14.8	26.2	12.4%
Consumer goods	3.8	7.9	16.0%
Others	46.1	66.6	7.5%
<b>Total</b>	<b>205.8</b>	<b>374.6</b>	<b>12.2%</b>



**Electrical machinery, appliances and equipment:**

Priority will be given to the manufacture of industrial engines and machinery for the generation and distribution of power.

Exports will be considerably increased.

An integrated plant covering all electrical measuring equipment will be established.

The production of semi-finished goods will be increased for import-substitution reasons.

Standardisation and quality control will be implemented.

**Domestic Demand Estimate**

(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Electrical machinery	14.8	36.7	19.8%
Electrical cables	10.0	20.6	13.3%
Network distribution appliances	6.7	10.5	9.4%
Internal installation equipment	1.8	4.3	18.7%
Durable consumer goods	6.5	10.9	10.6%
Batteries and cells	11.4	18.2	9.7%
Electrical meters	1.6	4.4	21.9%
Telecommunication appliances	2.0	6.7	27.5%
Other finished and semi-finished products	34.1	79.3	18.3%
Total	88.9	191.6	16.6%

Production Targets  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Electrical machinery	8.4	21.6	20.7%
Electrical cables	11.5	27.1	18.5%
Network distribution appliances	5.2	10.1	14.1%
Internal installation equipment	1.9	4.9	20.9%
Durable consumer goods	7.0	12.4	12.1%
Batteries and cells	11.5	18.9	10.3%
Electrical meters	0.7	4.0	43.0%
Telecommunication appliances	0.4	7.2	74.3%
Others	10.8	43.8	32.2%
Total	57.4	150.0	21.2%

Investment Estimates  
(million \$ U.S.)

1963-1967	30.2
1968-1972	50.0

Export Estimates  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Electrical machinery	0.2	0.5	14.3%
Electrical cables	2.1	6.7	26.0%
Network distribution appliances	-	0.4	-
Internal installation equipment	0.1	0.6	38.0%
Durable consumer goods	0.4	1.6	28.5%
Batteries and cells	0.2	0.6	30.0%
Electrical meters	-	0.1	-
Telecommunication appliances	-	0.6	-
Others	0.2	0.7	35.5%
Semi-finished product exports	0.3	2.2	46.1%
Total	3.5	14.0	30.8%

Import Estimates  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Electrical machinery	6.7	15.5	18.4%
Electrical cables	0.6	0.2	-16.3%
Network distribution appliance	1.4	0.8	-11.6%
Internal installation equipment	0.1	-	-
Durable consumer goods	-	-	-
Batteries and cells	0.1	-	-
Electrical meters	1.0	0.6	-10.9%
Telecommunication appliances	1.5	-	-
Others	13.9	6.7	-13.6%
Total imports of manufactured goods	25.3	23.8	-3.9%
Semi-finished product imports	10.0	31.7	25.9%
Total	35.3	55.5	9.7%

Electronic Industry:

Priority will be given to the production of electronic appliances.

Research will be increased and supported by the Government.

Investment in the production of circuit elements for electronic appliances will be encouraged.

Domestic Demand Estimates

(million \$ U.S.)

<u>Commodity or use</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
HF and VHF wireless appliances	4.6	5.6	15.8%
Radio, telephone and telegraph receivers and transmitters	0.4	1.7	34.6%
Current transmitters	-	2.3	-
Radio transmitters (less than 10 kw)	0.1	0.3	40.0%
Broadcasting stations	-	0.4	-
Various electronic appliances	3.1	6.2	14.8%
Various measuring devices	0.3	0.8	23.8%
Amplifiers	0.2	0.2	6.5%
Ankara-Istanbul-Isair R/L	1.1	-	-
Radios (current and battery operated)	21.0	37.1	12.0%
Record-players	0.6	0.8	5.2%
Tape recorders	0.6	1.9	26.4%
Others	1.0	5.0	38.0%
Semi-manufactured items	6.7	23.5	28.6%
<b>Total</b>	<b>39.7</b>	<b>89.8</b>	<b>17.9%</b>

**Production, Exports**

(million \$ U.S.)

<b>Commodity Group</b>	<b>1967</b>	<b>1972</b>	<b>Change Percent</b>
MP and MW wireless appliances	0.7	1.0	41.4%
Radio, telephone and telegraph receivers and transmitters	-	1.7	-
Current transmitters	-	1.0	-
Radio transmitters (less than 10 kw)	0.1	0.1	0.0%
Broadcasting stations	-	-	-
Various electronic appliances	-	1.2	-
Various measuring devices	-	0.1	-
Amplifiers	0.2	0.1	10.0%
Amere-Intenbil-Intar RFI	-	-	-
Radios (current and battery operated)	21.0	17.7	12.3%
Record-players	0.6	0.1	6.0%
Tape recorders	0.6	2.0	27.0%
Others	0.1	1.1	27.0%
Semi-manufactured items	-	1.7	-
<b>Total</b>	<b>23.4</b>	<b>37.1</b>	<b>19.6%</b>

**Investment, Exports**

(million \$ U.S.)

1963-1967	1.8
1968-1972	16.6

**UNITED STATES**  
**SECTION 8 (A)**

DESCRIPTION	AMOUNT	DATE	REMARKS
U. S. AIR FORCE AIRCRAFT	1.1	1.1	
EXPENSES	1.1	1.1	
TRAVEL (amount of money expended)	1.1	1.1	
RENT-PIERCE	1.1	1.1	
THE AIRCRAFT	1.1	1.1	
OTHER	1.1	1.1	
UN-APPORTIONED FUND	1.1	1.1	
TOTAL	1.1	1.1	

**UNITED STATES**  
**SECTION 8 (A)**

DESCRIPTION	AMOUNT	DATE	REMARKS
U. S. AIR FORCE AIRCRAFT	1.1	1.1	
TRAVEL, TELEPHONE AND TELEGRAM EXPENSES AND TRANSPORTATION	1.1	1.1	
TRAVEL TRANSPORTATION	1.1	1.1	
TRAVEL TRANSPORTATION LESS (IF ANY)	1.1	1.1	
EXHIBITION STATION	1.1	1.1	
EXPENSE AIRCRAFT AIRCRAFT	1.1	1.1	
EXPENSE AIRCRAFT AIRCRAFT	1.1	1.1	
EXPENSES	1.1	1.1	
OTHER-TRANSPORTATION (IF ANY)	1.1	1.1	
TRAVEL (amount of money expended)	1.1	1.1	
RENT-PIERCE	1.1	1.1	
THE AIRCRAFT	1.1	1.1	
OTHER	1.1	1.1	
UN-APPORTIONED FUND	1.1	1.1	
TOTAL	1.1	1.1	

**THE STATE**

The structure of government will be changed.

All citizens will be treated equally under the law.

There will be no more wars.

The people will be free to choose their own leaders.

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**CONFIDENTIAL**

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Very truly yours,  
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**Section 8 (b)(7) - Exemption from Disclosure**

1984-1987 1988  
1989-1992 1993

**Section 8 (b)(7) - Exemption from Disclosure**

1984-1987 1988 1989-1992 1993  
1994-1997 1998 1999-2002 2003  
2004-2007 2008 2009-2012 2013  
2014-2017 2018 2019-2022 2023

Section 8 (b)(7) - Exemption from Disclosure

**Annual Production**

Component Name	Quantity	Weight (Lbs.)	Volume (Cu. Ft.)	Value	Average Annual Production
Aluminum	0	4.0	0	-	-1.0%
Steel tubes	pieces	-	pieces	-	-
Electric Insulation	pieces	-	pieces	-	-
Passenger seats	0	0.3	0	0.2	-1.0%
Weight case	0	1.3	0	1.2	-2.1%
Engine	-	-	-	-	-
Others	-	1.0	-	0.6	-9.0%
<b>Total</b>		<b>6.6</b>	<b>0.0</b>	<b>5.5</b>	<b>-1.5%</b>

0/ Assembly parts for production.

Shipbuilding industry:

Modernization will be carried out.

Dry cargo vessels, oil tankers may be imported to improve the merchant fleet.

Shipbuilding credit funds will be increased; relevant legislation will be reviewed.

Tax incentives will encourage the use of domestically built ships.

Public sector shipyards and installations will become independent of the Turkish Maritime Bank during the first year of the Plan period.

Additional Ship Demand Estimates

<u>Vessels (DWT)</u>	<u>1968-1972 (number)</u>
Tankers with 30,000 DWT and more	3
Tankers with 10,000-15,000 DWT	9
Tankers with 10,000 DWT	3
Tankers with 6,000-7,500 DWT	5
Tankers with 4,000-6,000 DWT	8
Tankers with 2,000-4,000 DWT	14
Passenger ships (3,000 gross tons)	2
Car ferries (1,000 gross tons)	3
Under 2,000 gross tons	80
Others (tug boats, tin barges, pontoons, etc.)	126

Shipbuilding Production Estimates

<u>Vessels (DWT)</u>	<u>1968-1972 (number)</u>
Tankers with 10,000-15,000 DWT	9
Tankers with 10,000 DWT	3
Tankers with 6,000-7,500 DWT	5
Tankers with 4,000-6,000 DWT	8
Tankers with 2,000-4,000 DWT	14
Passenger ships (3,000 gross tons)	2
Car ferries (1,000 gross tons)	3
Under 2,000 gross tons	80
Others (tug boats, tin barges, etc.)	126

Production Values in the Shipbuilding Sector  
(million \$ U.S.)

<u>Commodity groups</u>	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Shipbuilding value	13.5	41.6	25.0%
Ship repair value	2.0	5.0	20.1%
Total	15.5	46.6	24.5%

Investment Estimates  
(million \$ U.S.)

1963-1967	9.4
1968-1972	38.8

Ship Imports

<u>Ships imported</u>	<u>Quantity</u>	<u>1967</u>		<u>1972</u>	
		<u>Million \$ U.S.</u>	<u>Quantity</u>	<u>Million \$ U.S.</u>	<u>Quantity</u>
Oil tankers over 25,000 DWT	pieces	2	8.3	pieces	-
Special sea vessels	pieces	-	-	pieces	3
<b>Total</b>	pieces	2	8.3	pieces	3

Aircraft construction and repair:

The maintenance and repair of all commercial aircraft will be undertaken at home except in special cases.

The creation of new repair and maintenance establishments will not be encouraged.

Priority will be given to the training of flying and technical personnel.

Systems for repair and maintenance will count on the assistance of foreign experts when necessary.

An excess repair and maintenance capacity may be placed at the disposal of foreign demand.

Domestic Demand Estimates for Aircraft Manufacture and Repair

(million \$ U.S.)

	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Maintenance and repair	1.8	3.3	14.4%
Complete aircraft	12.2	15.5	4.9%
<b>Total</b>	14.0	18.8	6.2%



Production Estimates for Aircraft Building and Repair  
(million \$ U.S.)

	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Aircraft repair	1.8	3.3	14.4%

Investment Estimates  
(million \$ U.S.)

1963-1967	1.9
1968-1972	1.7

Import Estimates for Aircraft Building and Repair  
(million \$ U.S.)

	<u>1967</u>	<u>1972</u>	<u>Average annual increase</u>
Complete aircraft	12.2	15.5	4.9%

Small-scale industry and handicraft:

Efforts will be made to adapt existing enterprises to new standards.

Industries with no potential will not be encouraged.

Development Centres will initiate their activities at the beginning of the Plan period.

The "controlled credit" system will be used.

An extensive training and educational methods will accelerate the progress made by the sector.

An organization will be established to ensure that the right technologies are used.

Certain areas of production will be transferred to the large-scale industries.

Studies will be undertaken on marketing co-operation between large-scale and small-scale industry groups and on quality control.

The co-ordination with large-scale industries will be implemented through integrated development programmes set up by the Ministry of Industry.

Small-scale industries under the Ministry of Village Affairs and Industry will be integrated.

#### Handicrafts:

A central institute will be organised to benefit from technical aid projects of international organisations.

Studies will be initiated to categorise handicraft industries.

Central and other organisation will assist craftsmen to obtain raw materials, credits and technical aid.

A system will be set up to provide professional and technical training.

The Ministry of Education will conduct research on the old forms, designs and colours of local small-scale industry products to improve local patterns.

The Ministry of Commerce will conduct research on domestic and foreign markets.

The Agricultural Bank will provide credits to enterprises having a marketing potential.

(1) Planned growth of electric power

Millions of kilowatts

Natural gas has not been discovered, but an extensive exploration is being planned.

Estimated Electric Power Requirements

Year	Petroleum		Hydro-Electric		Total
	1967	1972	1967	1972	
1967	1,300	1,300	1,300	1,300	5,200
1972	6,000	6,000	6,000	6,000	24,000

Energy Requirements in 1972

Year	Petroleum		Hydro-Electric		Total
	1967	1972	1967	1972	
1967	18.1%	18.1%	18.1%	18.1%	72.7%
1972	14.1%	14.1%	14.1%	14.1%	56.4%

Energy Requirements

(in 10<sup>9</sup> Btu)

1972-1977

General energy	11
Coal and gas	11
Electrical energy	98
Total	120



**Basic Investments**

(million \$ U.S.)

	First plan total estimated	Second plan total
<b>Fixed investments:</b>		
Total	27.7	27.7
- property	7.6	7.6
- non-property materials	17.7	17.7
- other materials	2.4	2.4
- other mining and quarrying	15.6	15.6
Total	130.7	131.6
<b>Capital investments:</b>		
- property	10.6	10.6
- other than property	12.7	12.7
Total	139.6	141.7
<b>Grand total:</b>	<b>114.1</b>	<b>114.1</b>

**Investment in Assets**

(million \$ U.S.)

	1977	1978	Average annual investment
<b>Investment in Assets</b>			
Non-property assets	12.6	17.2	6.9
Other mining and quarrying	9.5	17.4	12.4
Total	22.2	34.7	9.1

a/ Valued at current prices.

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The relationship between the IFC and the private sector will be re-examined in order to determine the best form of information from which to plan development.

Private investment projects are still being fast-tracked and the government is beginning to take a more active role in their development. In this regard, the relationship between public and private sector projects and their productivity will continue to be monitored and evaluated by the IFC and other agencies.

A significant finding is also related to the fact that the development of the IFC will be supported by the IFC and other agencies in the East Planning Council.

The Central Government and the Administration will be re-examined to increase their contribution to the development effort.

BY THE ECONOMIC COMMISSION FOR THE INDUSTRIAL SECTOR:

The largest proportion of non-fertile enterprises is operated on a small scale, indifferently managed and scattered throughout the country.

Only 10% of IFC enterprises in both public and private sectors employ more than 100 workers.

The reasons hampering the development of large-scale manufacturing are the lack of a capital market, limited habits of co-operation among entrepreneurs, and the inadequacy of professional management staff.

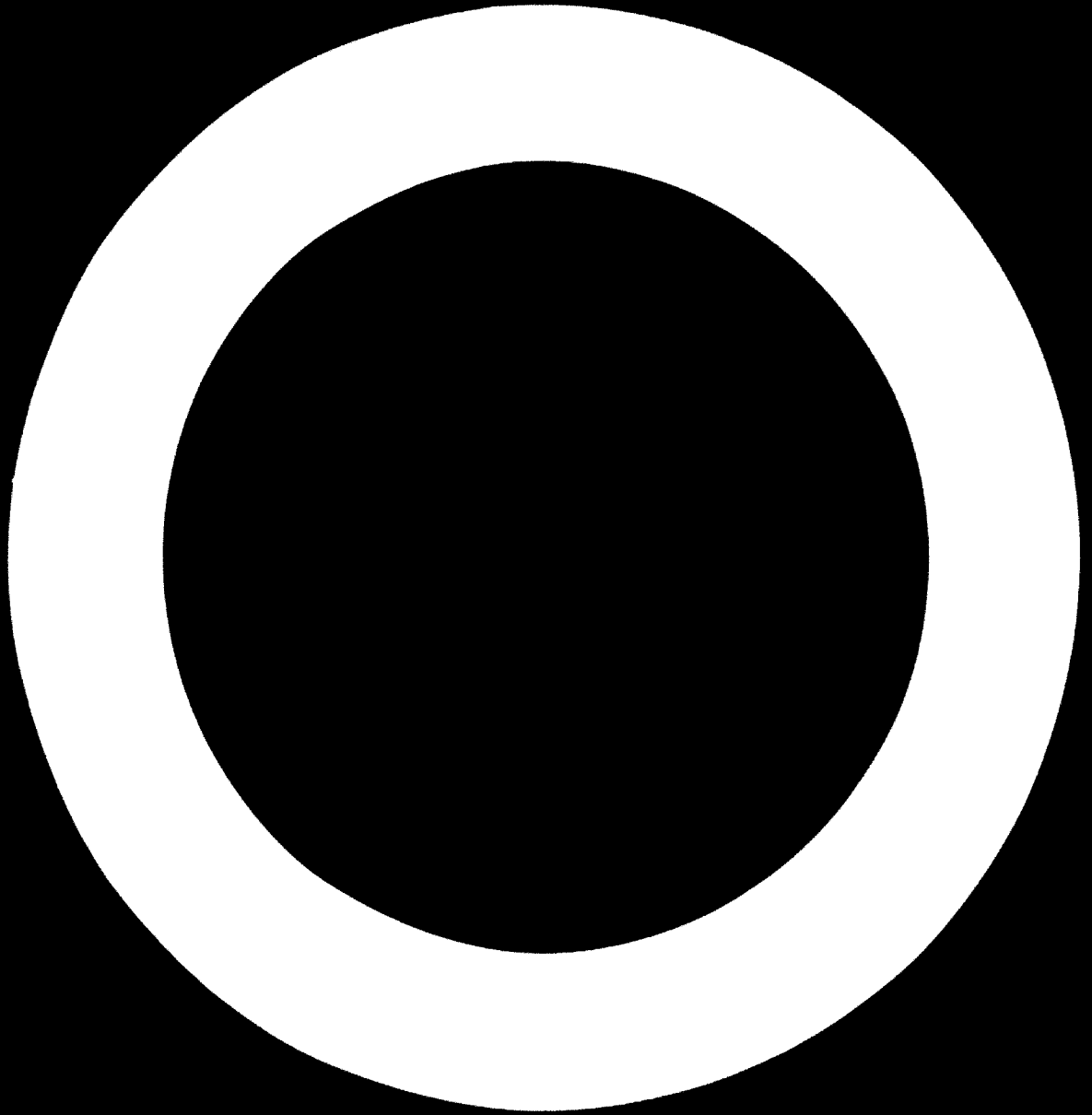
Incentives to develop the manufacturing industry in the past such as tax relief for investment expenditures, favourable tariff policies, etc., have failed due to the lack of co-ordination between the institutions created to administer them.

Current procedures for the licensing of industrial enterprises are outdated and time-consuming.



Reports of manufacturing profits have been depressed by the generally high unit costs of low-priced goods relative to unit prices. This is due to:

- the high input prices of capital goods and raw materials.
- the high cost of low-priced raw materials and some essential services to manufacturing.
- high interest rates due to capital shortage.
- enterprises being established without regard for their economic and/or capacity.



**SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF  
THE REPUBLIC OF KENYA: 1970 - 1974 <sup>2/</sup>**

**(Member of the East African Common Market)**

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

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**<sup>2/</sup> Nairobi, 1969, pp. 971.**

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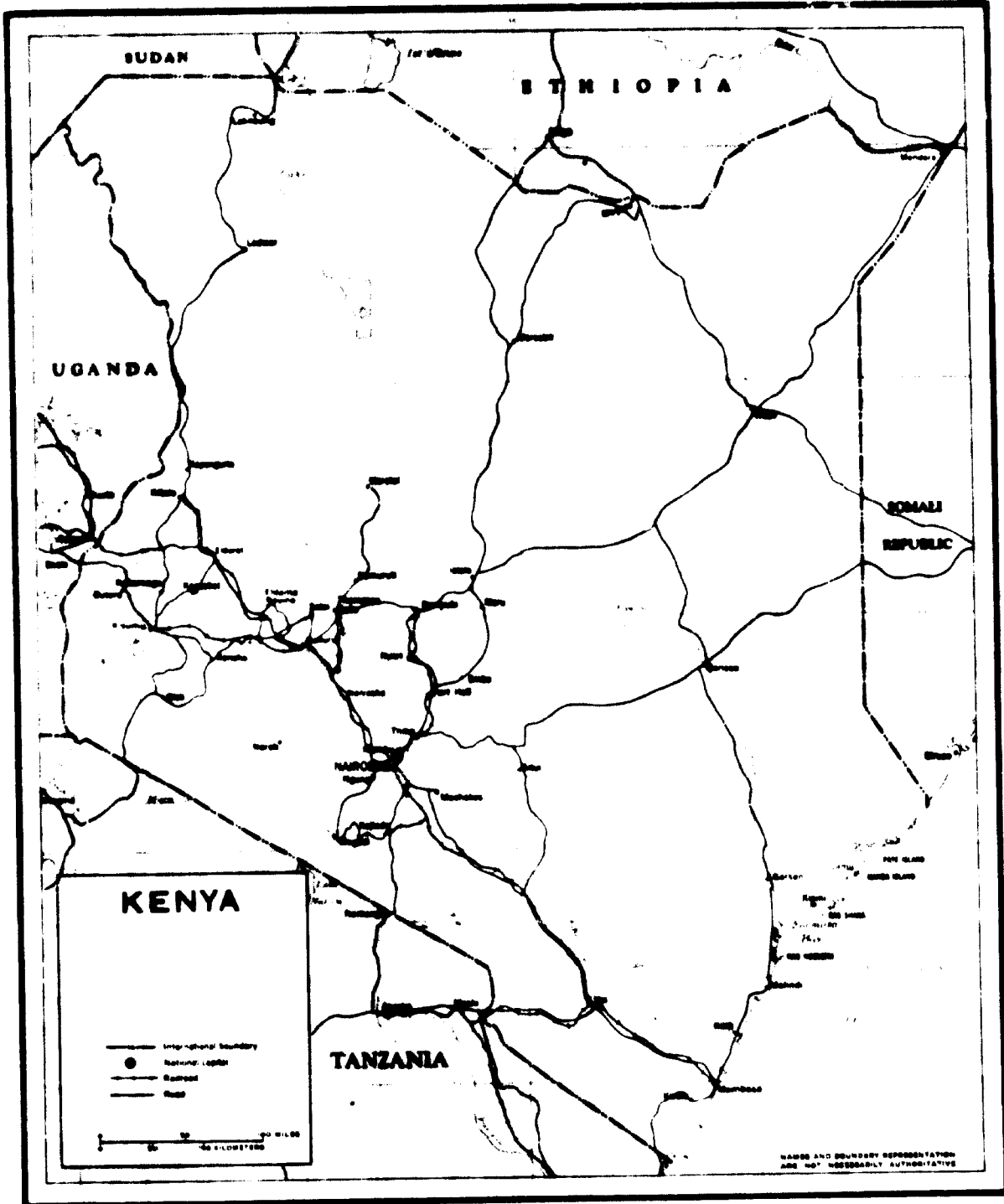
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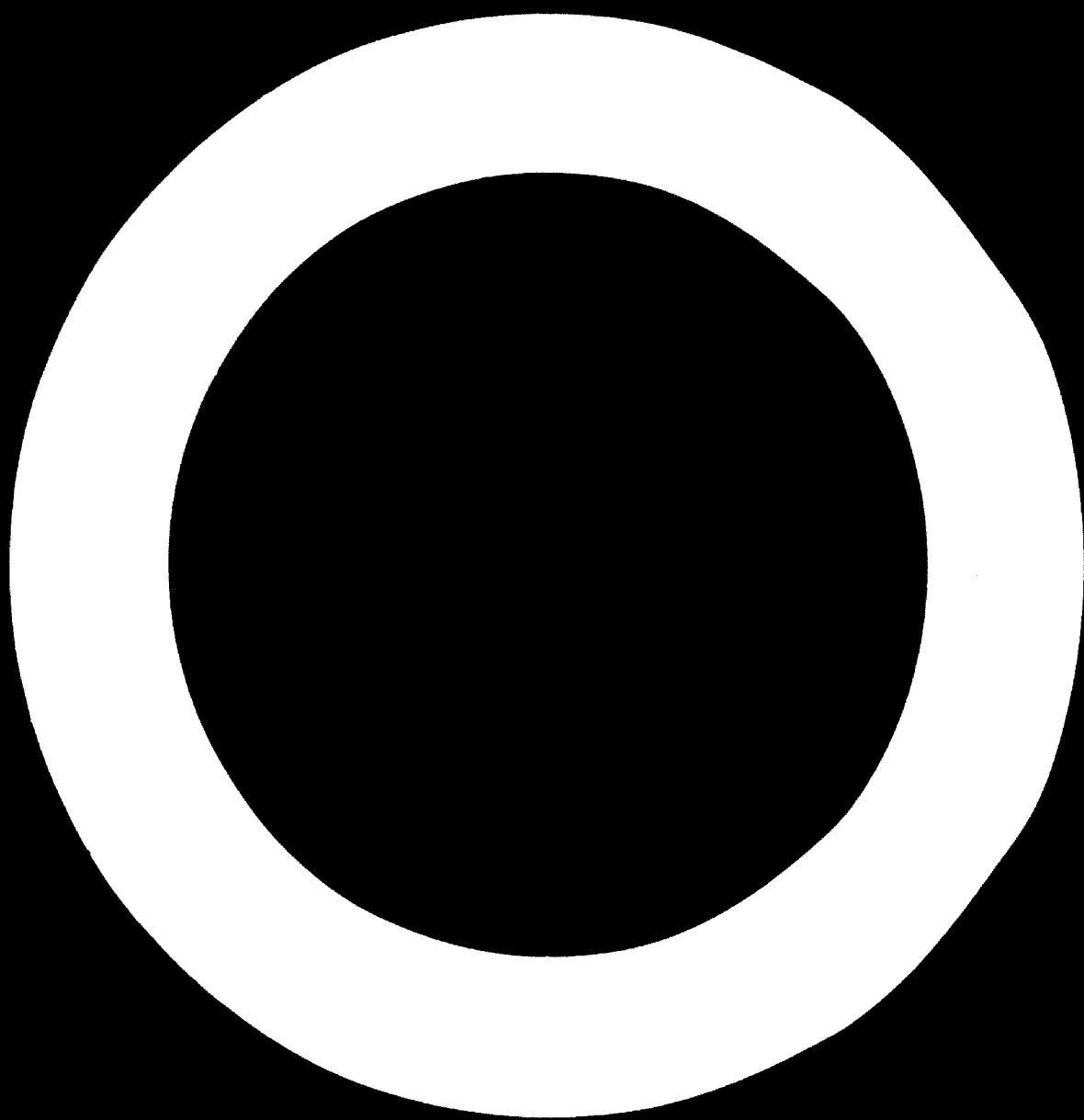
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Le Mois en Afrique

Jeune Afrique

Chronologie Politique Africaine







1. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Kenya:

<u>Area:</u>		583,000 km <sup>2</sup>
	Agricultural area	58,000 km <sup>2</sup>
	Forests	17,500 km <sup>2</sup>
	Range area (including national parks of 28,500 km <sup>2</sup> )	116,000 km <sup>2</sup>
	Desert and non-arable land	348,600 km <sup>2</sup>

<u>Major cities:</u>	Nairobi: 1962 Population of 266,744
	Mombasa: 1962 Population of 174,571
	Nakuru: 1962 Population of 38,181

<u>Other data:</u>	Number of automobiles	58,000
	Number of trucks and buses	47,000
	Electricity consumption: 61 kwh head r a total of 627 million kwh of which 224 million kwh were imported.	

<u>Exchange rates:</u>		<u>Kenyan £ equivalent</u>
	<u>Unit</u>	
	US dollar	0.357
	Pound sterling	0.858
	Swiss franc	0.083
	French franc	0.064
	German mark	0.097
	Italian lira (100)	0.057

2. Population:

	<u>1962</u>	<u>1968</u>
Total population (000)	8,595	10,200
Annual growth rate		3.0%

- In 1962 the urban population amounted to 670,945 or 7.8% of the total population; 66% of which lived in Nairobi and Mombasa.
- The age distribution is characterized by the fact that more than 50% of the total population is less than 15 years old.
- At the end of the first plan the literacy rate was estimated at 20-25% of those aged 14 years or more.

Urban and Rural Employment in Large-scale Industry, 1967 (%)

	Urban			Total	Rural	Total
	Nairobi	Nakuru	Other			
Food processing	25	9	40	74	26	100
Beverages	78	16	6	100	-	100
Tobacco	87	-	11	98	2	100
Textiles	20	19	25	64	36	100
Footwear and clothing	37	18	14	69	31	100
Wood	15	3	32	50	50	100
Furniture	66	16	14	96	4	100
Paper and products	42	51	7	100	-	100
Printing and publishing	81	7	11	99	1	100
Leather and furs	65	-	35	100	-	100
Rubber	91	3	6	100	-	100
Chemicals	46	12	32	92	9	100
Petroleum	-	100	-	100	-	100
Non-metallic minerals	29	51	8	88	11	100
Metal products	29	47	24	100	-	100
Basic metals	74	26	-	100	-	100
Non-electrical equipment	72	7	19	98	2	100
Electrical equipment	77	3	19	99	1	100
Transport material	54	21	23	98	2	100
Others	73	12	5	90	10	100
Total	44	16	24	84	16	100

The Government has selected main urban growth centres, which include: Eldoret, Embu, Kakamega, Kisumu, Nakuru, Nyeri, Thika.

**Persons Actively Employed**

(000)

	Total		Wage employed		Self employed		Family workers	
	1964	1968	1964	1968	1964	1968	1964	1968
Agriculture	3,263.8	3,679.4	482.5	556.6	828.0	950.0	1,923.3	2,172.8
Forestry	19.7	24.4	16.3	20.3	2.0	2.4	1.4	1.7
Fishing	11.3	14.3	4.9	6.4	4.4	5.5	2.0	2.4
Mining	4.7	6.1	3.6	4.6	0.9	1.2	0.2	0.3
Manufacturing	88.9	109.6	68.5	82.7	15.6	19.5	4.8	7.4
Building	22.4	37.1	20.2	34.4	1.7	2.0	0.2	0.7
Electricity and water	5.2	6.1	5.0	5.8	0.2	0.3	-	-
Transport, etc.	33.7	56.7	32.3	55.0	1.1	1.4	0.3	0.3
Trade	107.6	113.3	60.9	56.9	33.7	39.7	13.0	16.7
Banking, etc.	6.5	9.2	6.5	8.9	-	0.3	-	-
Services	66.2	77.1	51.3	58.6	10.6	13.3	4.1	5.2
Households	31.9	37.6	31.9	37.6	-	-	-	-
General Government	124.6	129.1	124.6	129.1	-	-	-	-
<b>Total</b>	<b>3,786.5</b>	<b>4,300.0</b>	<b>908.4</b>	<b>1,056.9</b>	<b>898.4</b>	<b>1,035.6</b>	<b>1,909.6</b>	<b>2,207.5</b>
<b>Average annual growth</b>		<b>3.2%</b>		<b>3.8%</b>				

**Summary:**  
 Annual growth of enrolment in primary schools from 1960-1961  
 11.6% in secondary schools 11.8%

**TABLE 1. ENROLMENT IN SCHOOLS, 1961**

Level and Area of Institution	No. of Schools	Enrolment	Total Enrolment	Percentage
<b>a) Primary:</b>				
aided	1,000	1,100,000	1,100,000	75.0%
unaided	1,000	350,000	1,450,000	25.0%
Total	2,000	1,450,000	1,450,000	100.0%
<b>b) Secondary:</b>				
aided	110	20,000	20,000	4.0%
unaided	100	100,000	120,000	24.0%
Total	210	120,000	120,000	100.0%
<b>c) Primary teacher training colleges:</b>				
aided	15	4,000	4,000	1.0%
unaided	2	100	4,100	0.1%
<b>Secondary teacher training colleges:</b>				
aided	10	1,000	1,000	0.2%
Total	27	4,100	4,100	0.3%
<b>d) Technical and vocational secondary schools:</b>				
aided	8	1,700	1,700	0.2%
unaided	1	100	1,800	0.1%
Total	9	1,800	1,800	0.1%
<b>e) Makerere University College</b>	1	215 <sup>00</sup>	215 <sup>00</sup>	0.01%
<b>University College, Nairobi</b>	1	200 <sup>00</sup>	415 <sup>00</sup>	0.02%
<b>University College, Dar es Salaam</b>	1	100 <sup>00</sup>	515 <sup>00</sup>	0.03%
Total	3	515 <sup>00</sup>	515 <sup>00</sup>	0.03%

<sup>0</sup>/ including an estimate of unrecorded schools not included in the enrolment table.  
<sup>00</sup>/ Kenya students only.

**UNIVERSITIES:**

The University of East Africa, inaugurated in 1963, has three constituent colleges, Makerere University College in Kampala, Uganda, the University College in Nairobi, Kenya and the University College in Dar es Salaam, Tanzania. The three colleges are jointly supported by the Governments of Kenya, Uganda, Tanzania and Zanzibar and provide courses in art, science, education, agriculture, medicine, architecture, engineering, veterinary science, law and domestic science.

**FINANCIAL STATEMENT OF THE UNITED NATIONS ORGANIZATION OF EDUCATION  
1950-1959**

(In 000)

	<u>1951-1954</u>	<u>1955-1959</u>	<u>Percentage</u>
Administrative and general	636	1,032	63
Primary education	4,619	9,075	96
Secondary education	3,140	10,591	237
Secondary technical and vocational education	832	1,709	106
Teacher training	1,667	3,148	88
Higher education	1,714	3,989	131
Other expenditures	4,101	1,370	-
<b>Total</b>	<u>16,709</u>	<u>30,876</u>	<u>85</u>

4. GDP:

	<u>1964</u>	<u>1968</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$) 10		13	6.0%
Total GDP/capita (\$) 102		118	3.5%
Population (000) 9,104		10,200	3.3%
Manufacturing GDP (\$ millions)* 94		136	5.7%
Total GDP (\$ millions)** 927		1,205	6.3%
Manufacturing % of total GDP 10		11	

\* / including GDP of repairing enterprises  
\*\* / at fixed prices (factor costs)

GDP Structure

(\$ millions)

	<u>1964</u>	<u>1</u>	<u>1968</u>	<u>1</u>
<b>Monetary sector:</b>				
Agriculture	146	16	161	15
Forestry and fishing	12	1	18	1
Mining and quarrying				
Manufacturing	94	10	136	11
Building and construction	19	2	37	3
Electricity and water	14	1	19	2
Transport, etc.	70	7	100	8
Trade	92	10	124	10
Banking, etc.				
Dwelling and other services	103	12	135	11
<b>Economic enterprises:</b>	550	59	731	61
Domestic services	8	1	10	1
General government	120	13	160	13
<b>Total monetary sector:</b>	678	73	901	75
<b>Non-monetary sector:</b>				
Agriculture	249	27	305	25
Others				
<b>Total GDP at current prices</b>	927	100	1,205	100

Over the period 1964 to 1966, the public sector share of the total economy increased from 24% to 27%; the public sector product grew at a relatively faster rate, 7%, than the private sector which grew at only 6.4%.

The rate of growth of the manufacturing industry was slower than that of the economy as a whole. This was partly due to:

- restrictions by Tanzania and Uganda on Kenyan exports.
- the failure of several projects to become operational (e.g. pulp and paper at Frederick Falls and fertilizers at Mombasa).

Textiles, rubber products, non-electrical machinery, paper and printing, wood products experienced the highest growth rates.

Quantity Index of the Manufacturing Production 1964-1966

	<u>1964</u>	<u>1966*</u>
Food	100.0	113.0
Beverages and tobacco	100.0	108.7
Textiles	100.0	205.1
Footwear and clothing	100.0	146.5
Wood	100.0	142.6
Furniture and fixtures	100.0	125.0
Paper and printing	100.0	138.3
Leather	100.0	116.7
Rubber	100.0	172.0
Chemicals	100.0	118.4
Petroleum products	100.0	126.3
Non-metallic minerals	100.0	134.8
Metal products	100.0	111.8
Electrical machinery	100.0	117.4
Non-electrical machinery	100.0	170.0
Transport equipment	100.0	128.6
Miscellaneous	100.0	86.7
All industries	100.0	124.8

\*/ Provisional

The agricultural production can be considered as acceptable, although it fell short of the projected target. The production of cereals and tea increased significantly.

4. Macro-economic Indicators:

Money supply: 1966 - \$1,740 million  
1968 - \$4,560 million  
Average annual increase 10.4%

	<u>1966</u>	<u>1968</u>
<u>Domestic credit:</u>	2,800	3,740
Claims of Government	-220	80
Claims of official entities	80	180
Claims on private sector	2,940	3,680

Prices (consumer index): 1964 - 98; 1968 - 110.

GDP: 1964 - \$ 927 million  
1968 - \$1,205 million  
Average annual increase 6.3%

Total Value of Exports and Imports

( \$ millions)

	<u>1964</u>	<u>1968</u>
Total value of exports <sup>a</sup>	217	235
Total value of imports	243	336

<sup>a/</sup> On an adjusted balance of payments basis including re-exports.

Balance of Payments

( \$ millions)

	<u>1964</u>	<u>1968</u>
Goods and services	44	-148
Capital:		
private	-120	110
Central Government	-4	60



Government Expenditure and Finance

(£ millions)

<u>Deficit</u>	<u>1965</u>	<u>1968</u> <sup>*</sup>
Net revenue	146	199
Net expenditure	145	181
Development revenue	27	46
Development expenditure	40	71

<sup>\*</sup> Estimates

The total Central Government budget over the five years 1964/1965 - 1968/1969 amounted to \$1,204 million; the development budget was at \$244 million.

Central Government Finance

(£ millions)

	<u>1965</u>	<u>1968</u>
Revenue (total)	180	218
Domestic revenue	166	215
From foreign grants	14	3
Expenditures (total)	210	264
Current	175	194
Capital	35	70
Deficit before foreign grants	-44	-49
Deficit after foreign grants	-30	-46
Financing the deficit	30	46
Domestic resources (net)	4	17
Foreign borrowing (net)		
(US Government and others)	26	29

d. Industrial products and technology - main manufacturing industries:

It is intended to consolidate and extend the country's position as a producer of manufactured goods; this can be realized through a more sophisticated pattern of production which will displace imports from industrialized countries.

e. Industry - related resources and sectors:

In 1967, the nation's forests contributed \$17 million to the gross domestic product; the harvesting potential was estimated at 500,000 m<sup>3</sup> of timber per annum.

Monetary agriculture accounted for 15.7% in 1964 and 14.7% of the total gross domestic product in 1968.

Changes in the Output of Principal Agricultural Products  
Between 1964 and 1968

<u>Products</u>	<u>Unit</u>	<u>1964</u>	<u>1968</u>
Coffee	Metric tons (000)	41.4	39.6
Sisal	Metric tons (000)	67.4	50.3
Tea	Metric tons (000)	20.2	29.8
Wheat	Metric tons (000)	134.7	216.3
Maise	Metric tons (000)	136.2	352.6
Rice (paddy)	Metric tons (000)	13.2	18.7
Seed cotton	Metric tons (000)	11.0	14.3
Sugar cane	Metric tons (000)	600.8	947.2
Pyrethrum (dried flowers)	Metric tons (000)	4.4	9.8
Cattle and calves for slaughter	Heads (000)	157.6	194.9
Sheep, lambs and goats	Heads (000)	114.8	55.1
Pigs	Heads (000)	45.0	53.1
Wool	Metric tons (000)	3.3	4.2
Wholemilk equivalent	Million litres	244.6	227.8

In 1967/1968, the total value of livestock production amounted to approximately \$100 million, comprising about \$45 million of the livestock production for subsistence and about \$56 million of the marketed livestock output. This marketed livestock production represented about 29% of the total gross farm revenue. The output of mining amounted to \$98 million in 1968.

Exports from 1964 to 1968

(\$ millions)

	<u>1964</u>	<u>1968</u>
<b>Agricultural exports:</b>		
Coffee	43.1	35.9
Tea	17.9	29.1
Pyrethrum extract	6.2	7.0
Sisal and sisal tow	16.8	5.0
Cotton (raw)	1.7	1.1
Butter and ghee	3.4	2.2
Pineapple	2.5	1.4
Hides and skins	3.6	4.8
Meat products	7.0	9.5
Wheat and flour	5.9	4.8
Maize	-	13.7
Others	-	<u>19.0</u>
<b>Total agricultural exports</b>	<u>130.2</u>	<u>133.6</u>
<b>Non-agricultural exports:</b>		
Petroleum products	13.2	30.5
Cement	4.8	6.2
Soda ash	2.0	3.4
Soap and soap preparation	4.2	4.5
Paper, paper goods and manufactures	2.8	5.3
Clothing	5.6	2.8
Footwear	4.2	3.1
Metal manufactures	5.3	5.0
Others	<u>32.8</u>	<u>41.2</u>
<b>Total non-agricultural exports</b>	<u>74.8</u>	<u>102.0</u>
<b>Total</b>	<u>205.0</u>	<u>235.6</u>

Imports from 1964 to 1968

(\$ millions)

	<u>1964</u>	<u>1968</u>
<b>Total</b>	243.0	336.0

Percentage of Total Imports by Broad Categories  
1964 and 1968

	<u>1964</u>	<u>1968</u>
Food, drinks and tobacco	13.7	8.1
Basic materials	4.3	4.6
Fuels	11.1	10.9
Chemicals	8.1	9.3
Textiles	10.7	9.7
Semi-manufactures	6.2	7.2
Metals	8.6	9.5
Transport equipment	12.9	14.5
Other capital goods	15.3	16.9
Consumer goods	5.0	5.2
Miscellaneous	4.1	4.1
Total	100.0	100.0

7. Overall economic development strategy and policy:

The major objectives of the Kenyan Government are:

- the transformation of a basically agricultural economy into an industrialized economy.
- to increase production.
- to realize higher per capita incomes equitably distributed among the population.
- to bring the overwhelming African majority of the people fully into cash-crop agriculture, industry, trade and government services.
- to achieve a growth in the overall employment.

8. Regional co-operation:

As a member of the East African Economic Common Market, inaugurated in December 1967, Kenya forms together with Tanzania and Uganda a single trade unit.

	<u>Value of exports to Tanzania and Uganda (\$ millions)</u>	<u>Total exports (\$ millions)</u>
1964	73.9	205.0
1965	83.7	218.5
1966	81.8	243.0
1967	74.2	221.3
1968	73.7	235.6

	<u>Value of imports from Tanzania and Uganda (\$ millions)</u>	<u>Total imports (\$ millions)</u>
1964	32.2	242.8
1965	33.1	272.8
1966	31.4	317.9
1967	37.8	326.3
1968	34.5	336.4

Within the Community, there are four corporations providing co-ordinated services for the three countries:

- East African Railway Corporation responsible for rail, road and inland waterway services;
- East African Harbours Corporation administers harbour services and facilities other than inland waterway ports with Mombasa as the principal port for Kenya and Uganda;
- East African Posts and Telecommunications Corporation provides scheduled services within Kenya, Tanzania and Uganda and between East Africa and several foreign nations;
- Furthermore, there is an East African National Shipping Line Limited (EANS�) with equal participation from the Governments of Kenya, Tanzania, Uganda and Zambia.

The construction of a common pipeline between Kenya and Uganda is under consideration.

9. Systems for planning and plan implementation:

An Industrial Development Division has been set up within the Ministry of Commerce and Industry:

- to pay greater attention to industrial and commercial planning.
- to improve scheduling of project implementation.
- to improve liaison with other economic ministries.

This Division includes the new Industrial Survey and Promotion Centre.

10. Problems encountered through the previous plan period:

The main problems encountered through the First Development Plan were:

- inadequate project preparation.
- scarcity of key personnel.
- insufficient co-ordination.
- lack of commitment to the Plan.
- the exclusion of Local Authority programmes.
- inadequate organisation of rural development.

The shortage of manpower will continue to be a major problem.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1970-1974

1. General goals and objectives:

(i) Planned growth:

	<u>1968</u>	<u>1974</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	13.3	18.5	5.8%
Total GDP/capita (\$)	118.0	156.0	4.5%
Population (000)	10,200	12,400	3.3%
Manufacturing GDP* (\$ millions)	136.0	230.0	9.2%
Total GDP (\$ millions)**	1,205.0	1,800.0	6.8%
Manufacturing % of the total GDP	11	13	
Consumption (\$ millions)	1,079.0	1,552.0	6.5%
Investment (fixed capital) (\$ millions)	254.0	430.0	9.1%
Domestic savings (\$ millions)	235.0	406.0	8.1%
Exports of goods and services (\$ millions)	377.0	574.0	7.5%
Imports of goods and services (\$ millions)	419.0	689.0	9.2%
Employment (000)	4,300	5,150	3.1%

\* / including GDP of repairing enterprises

\*\* / at fixed prices (factor costs)

(ii) Other objectives:

- to secure improved income distribution between sectors and between individuals;
- to raise the number of wage-paid jobs by 35% in 1974;
- to further the Kenyanisation of the Personnel Programme;
- to increase agricultural production by one-third in five years;
- to raise industrial production by 70% in 1974 over the 1967 figure;  
    obtain a substantial improvement in the secondary order road system; the railways will also be considerably improved;
- to raise foreign exchange revenues from tourism from \$55.8 million in 1968 to \$103.6 million in 1974;
- to strengthen economic ties with East African Community partners.

2. Strategy and policy:

(i) General:

Kenyan citizens will gradually play a major role in management and ownership of industry.

Kenya will move more deeply into the industrialisation process rather than continue to concentrate on simple manufactures.

Import-substitution will be furthered, although most capital goods will continue to be imported.

The State will increase its role in industry, through the promotion and financing of new projects.

The State will promote a wider geographical dispersal of industry.

The East African Community as a single market area will be strengthened.

The State will pay greater attention to project evaluation from the whole economy's point of view.

The State will carry out its own feasibility studies for a whole industry or for an inter-industry relationship.

The Government will protect both new and existing industries according to obligations with GATT, the Treaty for East African Co-operation and the Agreement for Association with the EEC.

The Ministry of Commerce and Industry will deal with cases of protection at the national level. At the East African level, consultations will ensure the harmonization of tariff policies and procedures.

Protection will be granted according to:

- the profitability of the enterprise;
- costs and benefits to the economy.

In certain cases the Government will grant undertakings "Approved Status" under the Foreign Investments Protection Act, 1964.



(ii) Manpower and productivity:

Unskilled labour:

Based on population projections, the working labour force will grow by approximately 850,000 persons or 3.1% per annum over the period 1968-1974. The aim of the plan is to expand the economy at a sufficient rate to provide employment for these additional people and to create job opportunities for those who are now unemployed.

The projected rates of growth of production provide a basis for the projected growth rates of employment.

Job opportunities will be created in the rural areas, not only in agriculture but in every other major economic activity as well. Not all of these job opportunities will be opportunities for wage jobs. The Government proposes to create opportunities for self-employment.

The education programme must be seen in terms of its effect on employment. More than 500,000 pupils leaving primary school must be absorbed by agricultural and other types of rural employment, since urban wage jobs will be insufficient.

138,000 of those leaving secondary school will enter the labour force during the plan period. It is estimated that by 1974 less than one half of them will be able to do so.

The only group of young people who will have little difficulty in finding wage employment will be those possessing technical and vocational skills and those possessing higher education. For this reason, the Government proposes to expand the vocational training at all levels.

Based on a trade testing system, artisans are classified and standards for the training of persons entering into industrial employment in the craft trades are provided. The programmes for apprenticeship and national industrial vocational training will be expanded.

Estimated Employment 1968-1974  
(Manpower Survey, 1967)

GDP	Average growth rates 1968-1974 (%)		Total employment (000)		Wage employment (000)	
	Total employment	Wage employment	1968	1974	1968	1974
Forestry	6.7	6.7	24.4	36.0	20.3	30.0
Fishing	5.0	4.8	14.3	19.0	6.4	8.5
Mining	4.0	4.5	6.1	8.0	4.6	6.0
<u>Manufacturing</u>	<u>4.0</u>	<u>4.5</u>	<u>109.6</u>	<u>139.0</u>	<u>82.7</u>	<u>107.5</u>
Building and construction	9.7	10.0	37.1	66.0	34.4	61.0
Electricity and water	8.2	1.9	6.1	7.0	5.8	6.5
Transport	9.8	8.2	56.7	91.0	55.0	88.0
Trade	6.4	3.2	113.3	137.0	56.9	72.0
Building insurance, etc.	9.0	7.0	9.2	14.0	8.9	13.5
Sewers	8.8	6.0	77.1	110.0	58.6	84.0
Private households	6.6	5.0	37.6	50.0	37.6	50.0
General government	8.0	5.0	129.1	173.0	129.1	173.0
Total non-agricultural economy	7.7	5.1	620.6	850.3	500.3	700.0
Agriculture	5.2	2.7	3,679.4	4,300.0	556.6	725.0
Total economy	6.7	3.1	4,300.0	5,150.0	1,056.9	1,425.0

The main objectives of the income policy are:

- to promote an overall economic growth;
- to promote increased employment;
- to obtain a fair distribution of the national income; and
- to hold down costs and prices.

The Government will take the responsibility for determining wages and salaries paid throughout the whole public sector.

As far as private sector wages contracts are concerned, they will be subject to review by the Industrial Court and will not become effective until approved by it. Minimum wages are necessary to avoid the exploitation of labour and will be fixed directly by the Government.

Middle and high-level manpower:

The main characteristics of the high and middle-level manpower are:

- More than 40% of all high and middle-level manpower posts are occupied by non-citizens.
- Kenyanization has proceeded much more rapidly in the public sector than in the private sector; in the public sector, approximately 27% of all posts are occupied by non-citizens; in the private sector; more than 47% are occupied by non-citizens.

The projections of manpower requirements for the plan period 1970-1974 therefore assume that:

- all non-citizens will be replaced by citizens within a period of 15 years from 1967.
- the planned target rates of growth for each industry will be achieved.
- the productivity increases assumed for the plan will be realized.
- the rate of growth of the total high and middle-level manpower requirements will be equal to the rate of growth in the total employment.
- all employees who retire or die must be replaced.

In order to achieve the above requirements, the following policies will be implemented:

- Overseas scholarships in certain fields of study will be required to meet high and middle-level manpower needs.
- Provision for an industrial training levy system whereby the employer's training costs will be more equitably shared by employers.
- Expanded training programmes for technical, vocational and commercial training.
- Greater efficiency in and capacity for administrative and managerial training will be secured.

Separate training schemes are required for industrial technicians and skilled workers and for industrial managers and enterprises: The Kenya Polytechnic, the Kenya Industrial Training Institute (KITI), the Management Training and Advisory Centre, the National Industrial Vocational Training Centre, and the Industrial and Commercial Development Corporation.

The ICDC will also assist in industrial training.

Small industrialists will benefit from on-the-spot advice from Provincial and District Trade Officers.

The Government will continue to support industrial research.

(iii) Investment and capacity utilisation:

	Gross fixed capital formation (\$ millions)		
	1970	1974	Total 1970-1974
Total (whole economy)	310.0	430.0	1,912.0
Manufacturing			
Public sector	1.4	4.2	12.6
Private sector	42.8	63.0	267.4
Total Manufacturing	44.2	67.2	280.0

Government Expenditure in Industry  
(\$ 000)

	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	Total
Industrial survey and planning	28	50	50	50	50	228
Kenya Industrial Training Institute	56	28	28	28	28	168
Rival industrialisation programme	-	184	196	204	210	794
Other industrial loans	482	420	490	560	630	2,582
I.C.D.C.	1,272	2,072	2,932	2,842	2,912	12,030
Investment in major projects	524	700	700	700	700	3,324
Kenya Industrial Estate	294	854	1,610	1,442	1,554	5,754
a) K.F.W. loans	62	70	84	98	112	426
b) Grants to K.I.E.	-	28	34	42	42	146
Small-scale and cottage industries	140	140	196	224	140	240
ICDC Investment Co. (loans)						
Grants for small industrial loans revolving funds	252	280	308	336	364	1,540
D.F.C.K.	280	280	280	280	280	1,400
New and additional investment (including income notes)	140	140	140	140	140	700
Bank consortium loan payments	140	140	140	140	140	700
<b>Total</b>	<b>2,118</b>	<b>3,034</b>	<b>3,976</b>	<b>3,964</b>	<b>4,110</b>	<b>17,202</b>

The Ministry of Commerce and Industry, together with its Industrial Survey and Promotion Centre, will provide information on investment opportunities.

The Government has proposed the introduction of a new legislation for industrial registration.

The role of the Industrial and Commercial Development Corporation (ICDC) will be:

- to invest in large industrial projects;
- to develop industrial estates;
- to develop rural and other small-scale industries.

This will be mainly achieved by providing financial assistance and management service.

An Industrial Research Centre will be established during the plan period.

The ICDC Investment Company has been formed to enable Africans to buy shares in industrial concerns requiring local participation. \$840,000 will be allocated during the plan period.

The Development Finance Company of Kenya (DFCK) either has invested or will invest in 24 projects a sum of \$8.1 million of which 60% is for the sugar production, textiles manufacture and hotels and 40% for flour mills, manufacture of metal products, food processing, timber and wood processing, vehicle assembly, engineering and insurance.

The DFCK minimum investment per project is \$56,000 and the maximum \$840,000.

Funds will also be made available through the East African Development Bank which is obliged to allocate 22½% of its resources to Kenya.

Other sources of finance include:

- the African Development Bank;
- the International Finance Corporation;
- the World Bank;
- the Commonwealth Development Corporation;
- the German Development Corporation.

KITI will be expanded by providing more training in forging and casting, and motor vehicle repair.

KITI, in collaboration with the Management Training and Advisory Centre, will assist ex-students and small industrialists in technical and managerial matters. The Government will contribute \$168,000.

The East African Industrial Research Organization will continue its activities supplemented by the Material Testing and Control Laboratory.

The Government will set up a National Scientific and Research Council which will include also members from important private industries. The Council will include an industrial research committee which will:

- co-ordinate industrial research projects;
- identify, select and recommend projects for implementation.

The ICDC and KITI will give priority to the stimulation of commercial and entrepreneurial activities at the village level.

Provincial and District Trade Officers in rural areas will be required to take part in the integrated programme.

A National Research and Scientific Council will be set up to:

- encourage the application of science to local objectives;
- co-ordinate research;
- diffuse information on the results of research.

(iv) Interconnections between growth factors:

The following table represents estimates of new investment required to achieve the expansion targets in each industry separately using independently determined incremental capital output ratios.

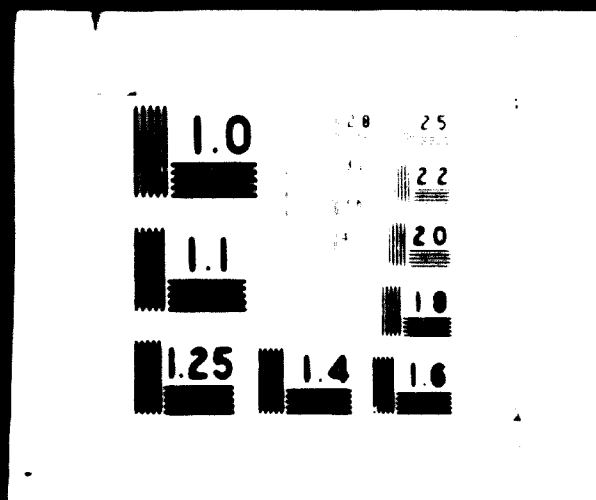


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4 OF 5

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Industry	Projected increase in the gross product 1967-1974 (£ 000)	Incremental capital output ratio	New investment 1967-1973 (£ 000)
Meat processing	1,320	2.53	3,360
Dairy products	1,490	2.81	4,200
Canning of fruit and vegetables	1,040	2.96	3,080
Grain-milling	2,330	1.68	3,920
Bakery products	1,560	0.99	1,540
Sugar	2,700	8.79	23,800
Confectionery	130	1.01	140
Miscellaneous food	2,110	1.99	4,200
<b>Total food processing</b>	<b>12,680</b>	<b>3.48</b>	<b>44,240</b>
Beverages and tobacco	7,360	1.90	14,000
Cotton ginning	180	1.53	280
Knitting-mills	450	1.83	840
Cordage, rope and twine	-	-	-
Spinning and weaving	7,490	3.55	26,600
<b>Total textiles</b>	<b>8,120</b>	<b>3.41</b>	<b>27,720</b>
Footwear	870	0.96	840
Clothing and made up textiles	2,690	0.62	1,670
<b>Total footwear and clothing</b>	<b>3,560</b>	<b>0.71</b>	<b>2,510</b>
Wood products	2,440	1.95	4,760
Furniture and fixtures	2,100	1.33	2,800
Pulp and paper	9,300	3.76	35,000
Publishing and printing	4,870	1.03	5,040
Leather and furs	450	1.23	560
Rubber	7,030	2.39	16,800
Chemicals and petroleum	10,850	2.86	31,080
Non-metallic minerals	3,420	3.15	10,780
Metal products	4,420	1.58	7,000
Machinery	5,820	1.35	7,820
Transport equipment	12,790	0.87	11,200
Miscellaneous	1,110	0.63	700
<b>Total manufacturing</b>	<b>96,320</b>	<b>2.30</b>	<b>222,010</b>

3. Data bases and projections:

The 1967 Census of Industrial Production was used as the basis for 95% of the projections made.

Small rural enterprises with less than five workers were considered separately.

The overall manufacturing growth rate of 8.9% was used for planning purposes.

In industries where specific projects were not known, projections were based on past growth rates, growth of domestic and foreign demand and import-substitution.

Projections have taken both technical and economic feasibility into account.

The Industrial Survey and Promotion Centre will collect and expand data on industry. \$229,600 have been allocated for industrial surveys and planning.

The Statistics Division of the Ministry of Economic Development will eliminate gaps in the amount of data it compiles.

Physical planning at national and regional levels has been divided into three phases:

- compilation of data on population, the location of existing infrastructure, roads, railways, agriculture, natural resources, tourist areas, topography, etc.;
- analysis and projection of dynamic factors such as population growth, immigration, technical and cultural change, urbanisation rate, etc.;
- preparation of plans, including operational maps and supporting data on:
  - urban areas selected for intensive growth;
  - a network of smaller towns as administrative and social centres to serve local needs;
  - the development of communication systems and extension of power grids.

Research will be undertaken to attain two main objectives:

- to enable development programmes to be drawn up using improved technologies;
- to investigate specific problems impeding rapid economic development.

Due to shortages of various types, Kenya cannot undertake research on an extensive scale.

The National Research and Scientific Council will:

- encourage the application of science and technology to national economic and social objectives;
- advise and assist the Government in the establishment of research priorities in relation to industry, medicine and agriculture;
- co-ordinate research in all its aspects;
- diffuse the results of research undertaken.

4. Planned growth of industrial sectors:

(1) Planned growth of manufacturing sectors:

	<u>Value-added*</u>		<u>Growth rate</u>
	(\$ 000)		
	<u>1967</u>	<u>1974</u>	
Food processing (total)	<u>17,460</u>	<u>30,240</u>	8.0%
Meat processing	2,020	3,340	7.5%
Dairy products	2,980	4,480	6.0%
Canning fruit and vegetables	700	1,740	14.0%
Grain-milling	5,680	8,000	5.0%
Bakery products	2,200	3,760	8.0%
Sugar	1,630	4,340	15.0%
Confectionery	200	340	8.0%
Others	2,050	4,160	10.5%
Beverages and tobacco	<u>14,730</u>	<u>22,100</u>	6.0%
Textiles (total)	<u>5,040</u>	<u>13,160</u>	14.5%
Cotton ginning	380	560	6.0%
Knitting mills	700	1,140	7.5%
Cordage, rope and twine	1,840	1,840	-
Spinning and weaving	2,120	9,640	24.0%
Footwear and clothing (total)	<u>5,230</u>	<u>8,800</u>	7.5%
Footwear	1,430	2,300	7.0%
Clothing and made up textiles	3,800	6,500	8.0%
Wood products	3,300	5,740	8.0%
Furniture	2,540	4,640	9.0%
Pulp and paper	2,240	11,540	26.0%
Publishing and printing	7,380	12,260	7.5%
Leather and furs	540	1,000	9.0%
Rubber	940	7,980	36.0%
Chemicals and petroleum	15,300	26,160	8.0%
Non-metallic minerals	6,850	10,280	6.0%
Metal products	6,700	11,140	7.5%
Machinery	7,770	13,600	8.5%
Transport equipment	20,980	33,760	7.0%
Others	1,680	2,800	7.5%
Total manufacturing	<u>118,680</u>	<u>215,200</u>	<u>8.9%</u>
Mining and quarrying (total)	5,710	8,930	6.6%
Electricity and water (total)	17,700	30,330	8.0%
Grand total	<u>142,090</u>	<u>254,460</u>	<u>7.8%</u>

\*/ Excludes small rural industries whose value added in 1974 is projected as \$14.8 million.

Investment 1967-1974

(8 000)

	<u>Private</u>	<u>Public</u>	<u>Total</u>
Food processing (total)	<u>29,400</u>	<u>14,840</u>	<u>44,240</u>
Meat processing	560	2,500	3,060
Dairy products	4,200	-	4,200
Canning of fruit and vegetables	2,800	280	3,080
Grain-milling	3,640	280	3,920
Bakery products	1,400	140	1,540
Sugar	12,600	11,200	23,800
Confectionery	140	-	140
Others	4,060	140	4,200
Beverages and tobacco	<u>12,600</u>	<u>1,400</u>	<u>14,000</u>
Textiles (total)	<u>22,120</u>	<u>5,600</u>	<u>27,720</u>
Cotton ginning	280	-	280
Knitting mills	840	-	840
Cordage, rope and twine	-	-	-
Spinning and weaving	21,000	5,600	26,600
Footwear	840	-	840
Clothing and made up textiles	1,600	70	1,670
Wood products	3,360	1,400	4,760
Furniture	2,200	280	2,800
Pulp and paper	25,200	9,800	35,000
Publishing and printing	4,060	980	5,040
Leather and furs	300	260	560
Rubber	15,400	1,400	16,800
Chemicals and petroleum	28,280	2,800	31,080
Metal products	5,600	1,400	7,000
Non-metallic minerals	10,360	420	10,780
Machinery	7,480	340	7,820
Transport equipment	9,800	1,400	11,200
Others	700	-	700
Mining	<u>11,550</u>	<u>930</u>	<u>12,480</u>
Total	<u>191,170</u>	<u>43,320</u>	<u>234,490</u>
Electricity*	n.a.	n.a.	<u>49,017</u>
Grand total	n.a.	n.a.	<u>283,507</u>

\* / over the period 1970-1974

Industrial Employment Projections

Industry	Numbers employed <u>1967</u>	Numbers employed <u>1974</u>	Increase in employment <u>1967-1974</u>	Employment growth 1967-1974 per cent <u>per year</u>
Food processing (total)	<u>11,980</u>	<u>15,420</u>	<u>3,440</u>	<u>3.7</u>
Meat processing	2,021	2,150	129	0.8
Dairy products	1,440	1,728	288	2.6
Canning of fruit and vegetables	1,715	2,659	944	6.5
Grain-milling	2,273	2,750	477	2.7
Bakery products	1,425	1,795	370	3.4
Sugar	1,744	2,100	356	2.6
Confectionery	131	189	58	5.4
Miscellaneous food	1,231	2,049	818	7.5
Beverages and tobacco	<u>3,534</u>	<u>4,555</u>	<u>1,021</u>	<u>3.7</u>
Textiles (total)	<u>5,787</u>	<u>8,886</u>	<u>3,099</u>	<u>6.3</u>
Cotton ginning	126	212	86	7.7
Knitting mills	793	1,587	794	10.4
Cordage, rope and twine	2,032	1,699	-333	negative
Spinning and weaving	2,836	5,388	2,552	9.6
Footwear and clothing (total)	<u>4,902</u>	<u>6,100</u>	<u>1,198</u>	<u>3.1</u>
Footwear	1,175	2,000	825	7.9
Clothing and made up textiles	3,727	4,100	373	1.4
Wood products	4,678	6,373	1,695	4.5
Furniture and fixtures	1,929	1,982	53	0.4
Pulp and paper	1,004	2,210	1,206	11.9
Publishing and printing	3,147	4,000	853	3.5
Leather and furs	474	900	426	9.6
Rubber	382	750	368	10.1
Chemicals and petroleum	3,217	4,058	841	3.4
Non-metallic minerals	2,056	2,600	544	3.4
Metal products	3,140	4,458	1,318	5.1
Machinery	3,946	4,703	757	2.5
Transport equipment	14,487	16,251	1,764	1.6
Miscellaneous	<u>1,039</u>	<u>1,754</u>	<u>715</u>	<u>7.8</u>
Total manufacturing	<u>65,702</u>	<u>85,000</u>	<u>19,298</u>	<u>3.7</u>
Mining	4,800	6,000	1,200	3.1
Electricity	<u>2,500</u>	<u>3,250</u>	<u>750</u>	<u>3.7</u>
Grand total	<u>73,002</u>	<u>94,250</u>	<u>21,248</u>	<u>3.5</u>

Exports at 1967 Prices

( \$ 000 )

	<u>1967</u>	<u>1974</u>
Total processed agricultural products	<u>14,911</u>	<u>41,135</u>
Meat products	9,568	11,204
Dairy products	6,070	2,801
Canned fruit and vegetables	3,269	8,823
Pyrethrum products	8,173	10,224
Hatle products	2,147	1,961
Animal and vegetable oils and fats	1,095	1,961
Others	4,589	6,162
Total other manufactured products	<u>85,311</u>	<u>132,067</u>
Beverages and tobacco	2,681	2,577
Textiles	6,563	8,459
Clothing and footwear	5,947	11,764
Wood products	3,826	5,462
Paper and printing	6,240	8,711
Leather products	902	2,941
Rubber products	944	6,162
Chemical products	10,173	24,649
Petroleum products	32,814	40,614
Other mineral products	5,549	8,963
Metal products and machinery	8,294	9,103
Miscellaneous products	1,389	2,661
Minerals	<u>4,837</u>	<u>4,902</u>
Grand total	125,079	180,104



Imports at 1967 Prices  
(8 000)

	<u>1967</u>	<u>1974</u>	<u>Annual increase</u>
Crude petroleum	26,600	52,700	10.3%
Processed food products	16,000	17,400	1.4%
Textiles and clothing	35,300	37,500	0.9%
Chemicals	29,400	59,400	10.6%
Base metals	19,300	37,800	10.0%
Metal products	14,600	29,400	10.5%
Transport equipment	58,300	110,600	9.6%
Other manufacturing equipment	50,700	98,300	7.2%
Other manufactured products	76,200	97,500	3.6%
Total	<u>326,400</u>	<u>540,600</u>	<u>7.5%</u>

Food processing:

Meat: The Kenya Meat Commission has been reorganised; the Government will control the sale of slaughter cattle to butchers other than the KMC. New investment in the industry is estimated at \$3.4 million, mostly in the form of Government loan guarantees.

Dairy products: Increased emphasis will be placed on higher quality. New investment will total \$210,000.

Canning of fruit and vegetables: California Packers (Del Monte) have acquired Kenya Cannery Ltd. and will invest \$70 million for expansion and modernisation.

Kenya Cannery Ltd. will process 4,500 tons of passion fruit by 1974. Production areas will be diversified and the effect of disease minimized.

The vegetable dehydrating industry is dependent on quality, efficiency, and the trend of world market prices. Public investment will total \$280,000.

Grain-milling:

Maize milling will grow faster than wheat milling.

It is hoped to establish new industries for maize starch, glucose, maize oil and maize-based breakfast cereals.

The baking industry will be rationalised.

Pasta production will be expanded on the basis of domestically grown durum wheat.

Biscuit production will be expanded.

The capacity of the Mwea rice will be trebled by 1970.

Public investment from ICDC loans of \$280,000 will be necessary to encourage small-scale maize millers.

Sugar production:

Technical and transport difficulties facing new factories will be overcome.

There will be an improvement in cane yields.

Investment for factory operations: \$23.8 million, of which \$11.2 million are public investment and which has largely already taken place.

Margarine, cashew nuts, fish processing:

Cashew nuts are largely (90%) exported raw to India.

Domestic processing may involve public investment of \$140,000.

Beverages and tobacco:

Exports will decline, partly since Uganda and Tanzania have built their own such industries.

Textiles:

A problem of over-production now exists in the East African Community, since nearly all producers are concentrating on the manufacture of lower qualities.

Kenya exports of certain textiles are hampered by transfer taxes in Uganda and Tanzania; the Kenyan mills will thus diversify production.

Some import-substitution will take place, but imports from Uganda and Tanzania will increase in direct relation with improved quality production.

Cordage, rope, and twine will not grow due to competition of synthetic materials.

Footwear and clothing:

The industry will overcome difficulties due to increased production in Uganda and Tanzania.

In clothing, the Government will play a role in training people in cutting and tailoring, as well as in business methods.

Wood products:

With increased co-ordination, output is expected to grow at over 8%.

Plantation units of the Forestry Department have not yet reached full productivity.

Saw-milling offers great scope for Africanization; the Government will provide loans through ICDC.

Improved methods of wood and timber utilisation will be affixed to raise productivity.

The Government has established a Forest Industrial Training Centre with lodging operations at Maji, Masuri and Bahati, and a saw-mill and prefabricated housing at Nakuru.

Furniture and fixtures:

A fast growth rate is expected particularly due to low-cost furniture.

There is a good potential market in East Africa.

The Government will carry out training programmes and give financial assistance to Africans.

Investment will total approximately \$2.8 million.

Pulp and paper products:

The success of the factory at Broderick Falls will be dependent on that of the packaging industry.

Printing and publishing:

Expansion of the industry will accompany the increasing rate of literacy.

Leather and leather products:

A number of factors favour future exports of leather rather than of wet salted cow hides.

The ICDC will assist local enterprises with technical assistance and funds in the production of furs and leather.

Chemicals and petroleum products:

Production of soap, paints and detergent will grow at the same rate as domestic demand.

Caustic soda may be made at Broderick Falls paper mill, but there will be a surplus of 3,000 tons of chlorine.

Studies will analyse the possibility of manufacturing glass, fertilisers, industrial alcohol from molasses, sulphuric and hydrochloric acid.

Exports from the oil refinery at Mombasa will have to find new markets once the Zambian refinery becomes operational.

Although capital-intensive, this industry is a major foreign exchange earner.

#### Non-metallic minerals:

It is expected that domestic demand for cement will continue to grow due to construction and that exports to Zambia, Tanzania and Uganda will become negligible due to an increase in the local production.

The glass industry is likely to expand due to demand from Kenya, as well as from the surrounding countries.

#### Machinery:

Possibility studies will examine the possibility of producing:

- diesel engines
- centrifugal pumps
- sprayers
- bush cutters
- spare parts for cars.

New production of electrical equipment will include:

- meters
- electric lamp bulbs
- bakelite switches
- electric cookers
- heaters
- radiators
- refrigerators
- washing machines.

Only in a few cases is domestic demand sufficiently large. Import markets will have to be obtained in most cases.

Transport equipment:

The motor repair industry will continue to expand as fast as in the past.

The assembly of lorries and buses will continue to expand.

East African demand for tractors has sufficiently risen to render domestic assembly feasible.

The local assembly of cars will be realized only if prices are not increased, quality is not lowered and if Government revenues are not decreased.

(ii) Planned growth of electricity:

(iii) Planned growth of mining:

(iv) Priority of sectors:

(v) Infrastructural problems connected with industry:

New hospitals and hospital extensions are planned, as well as training of manpower required for these facilities.

The acute shortage of urban housing, particularly of low income housing, will be reduced.

Vigorous expansion of water installations in the rural areas.

The secondary feeder road system will be substantially improved so that people in the rural areas get their crop to the market in all weather conditions; the existing roads will be improved, especially the tourist roads and tea and sugar roads.

Airports, railways and ports will be expanded and improved.

5. Planned industrial projects:

Inventory of projects:

Dairy products:

A new plant has recently been opened to preserve milk. \$4.2 million will be required for increased quality and capacity.

### CANNING INDUSTRY:

California Packers plan \$70 million investment for factory expansion and modernisation, as well as for planting pineapples. This will provide 70,000 tons of pineapple for canning in 1974.

Kenya Cannery Ltd. have a project to process 4,500 tons of raw passion fruit by 1974. Small extraction plants will be established in various parts of the country to diversify production areas and minimise effects of disease.

The pilot plant for vegetable dehydrating at Naivasha will be reopened. The Government will invest \$14,000.

### Sugar production:

New investment may be made to realise a project at Mumias of the order of \$6.4 million.

### Fish processing:

The Government plans to expand the fishing industry on Lakes Victoria, Baringo and Rudolf, as well as to build a harbour and cold storage facilities at Mombasa. An investment of \$4.2 million is required.

### Beverages:

The Government, through ICDC loans, plans a joint venture with breweries to produce a "Chibuku" type beer. Public investment will amount to \$1.4 million.

### Textiles:

The rayon mill at Thika, among others, will construct a weaving section to substitute for imports of loom-state cloth.

New mills will be built at Eldoret and Nakuru to produce high quality and cotton-polyester poplins. They will be fully integrated

from spinning to finishing. Investment will take a large share of the \$26.6 million expected in the spinning and weaving industries.

Wood products:

A third plywood factory will be built at South Mount Elgon. The license area will provide podo as tea chest material and hardwoods for veneers for export.

It is planned to set up a pencil factory using slates which are at present exported.

Pulp and paper products:

The establishment of the pulp and paper factory at Broderick Falls has been slower than expected; the factory is designed to produce 50,000 tons of kraft and "cultural" paper, mostly for the packaging industry in relation to Kenya's exports. It will contribute a gross product of about \$6.4 million per annum. Its success will be dependent on the development of the packaging industry.

Printing and publishing:

The Government Press is being enlarged at a total cost of \$551,600 during the plan period.

Leather and leather products:

The establishment of a kid-leather plant will absorb local output.

Rubber:

The Firestone Rubber Co. will build a tyre plant to supply 80% of domestic demand and with export capacity. \$14 million will be invested. Capacity: from 150,000 to 200,000 tyres per year. Investment for expansion of other plants will total \$2.8 million.



Chemicals and petroleum products:

A nitrogenous fertiliser project at Mombasa, because domestic demand grew slower than expected. Market limitation has had similar effects on a number of basic industrial chemicals.

Further expansion of the Mombasa refinery will eliminate bottlenecks with relatively little new investment.

A grease plant will be operational in 1970 with a capacity of 2,000 tons per annum.

A lubricating oil plant will start operating in 1972 with a capacity of 60,000 tons per annum. Approximately \$11.2 million will be invested. Employment will hardly increase as the industry is very capital-intensive.

Non-metallic minerals:

A feasibility study has been carried out in connection with the ceramics industry; a project will be implemented through the plan's duration period.

Metal products:

A project is currently being implemented to expand the Mombasa factory of nails, rivets and welded mesh. New products will include: re-rolling of imported steel billets to produce reinforcement rods, bars, angles and flats. Investment will total \$21.4 million.

Transport equipment:

At Mombasa, there are possibilities of a new project for ship-building and repairs, due to the new harbour facilities.

Industrial estates:

Factory buildings will be built and rented to African entrepreneurs.

Machinery and equipment will be provided on a 100% loan

basis for 8 to 10 years at 8% interest.

Working capital is to be provided by entrepreneurs themselves.

Technical and management assistance will be given on day-to-day running of business.

The construction of the Nakuru Industrial Estates will be started in 1970 and will end in 1973, comprising 15 units.

The Mombasa Industrial Estates will consist of 25 units, at a cost of \$1.7 billion. Construction will start in 1971 and end in 1974.

The Kisumu and Eldoret Industrial Estates will start in 1972 and end in 1974.

The Nairobi Industrial Estates will establish a technical service centre which will design tools and dies. It will work closely with the Industrial Research Centre.

ICBE Outlays on Industrial Estates Development

	<u>1969-1970</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1974-1975</u>	<u>Total</u>
Materials (contract prices)	300	560	640	-	-	1,500
Labour	-	300	560	560	-	1,420
Services	-	-	420	580	700	1,700
Electricity	-	-	-	300	560	860
Materials	-	-	-	-	300	300
Grants to Kenya Industrial Estates Ltd.	60	60	80	100	120	420
<b>Total</b>	<u>360</u>	<u>980</u>	<u>1,700</u>	<u>1,540</u>	<u>1,680</u>	<u>6,200</u>

Possible ICDC Projects in the First Two Years of the Plan

	<u>Investment</u> <u>(£ 000)</u>
Eldoret Textile Mill	9,600
Flamingo Textile Industries	10,240
Venus Easterbrook (EA) Ltd.	160
Firestone EA (1969) Ltd.	14,400
Ready-mixed Concrete	260
Kentrew Ltd.	1,400
	<hr/> 36,060

The Central Government will allocate \$2.8-5.6 million to ICDC during the plan period for major industrial projects.

In its capacity as a promoter of small-scale industries, the ICDC will obtain funds from abroad. It will aid mainly:

- saw-milling;
- wood-working;
- shoe-making and leather processing;
- clothing;
- vehicle repairs;
- manufacture of elementary construction materials.

The ICDC will be responsible for industrial estates at:

- Nairobi (second phase)
- Mombasa
- Nakuru
- Kisumu
- Eldoret.

Mining:

Measures will be taken to create incentives for overseas investors to come and assist in exploiting mineral resources; these measures will include the guarantee for the continuation of mining titles over a period of several years, assurance as to the levels of location, royalty and export duties.

Sodium carbonate will further be the leading mineral since world demand and prices for this mineral continue to rise.

A rapid growth is envisaged for limestone, gypsum and probably salt.

For the development of lead and zinc deposits near Ribe tenders were foreseen in 1970.

The mining of niobium, europium and of other rare earth minerals at Murima Hill will be developed.

Exploration activities will continue in west Kenya within the framework of the United Nations Mineral Resources Survey.

#### Electricity:

Construction of power stations and of major transmission lines in 1970 to 1974:

- Transmission line between Nairobi and Mombasa;
- Aircraft gas turbine of 12 MW at Kipevu (Mombasa);
- Kipevu steam unit 6 with 30 MW;
- Nairobi gas turbine (industrial);
- Keru hydroelectric units 1 and 2 and the transmission line Tana-Nairobi.

The development of the power distribution network will take place in a large number of small projects which cannot be individually predicted in advance.

The major part of the investment programme will be financed by overseas loans; thus, the Kipevu thermal units, the Mombasa - Nairobi interconnector and the two gas turbines are largely financed by long-term credits from the Commonwealth Development Corporation and the Export Credit Guarantee Department. Normal development and secondary transmission are the financial responsibility of M.A.P. and L.

#### CRITERIA FOR PROJECT EVALUATION AND LOCATION:

Major importance will be given to the geographical dispersal of the benefits of industrialization away from Nairobi and Mombasa.

6. Organisational and institutional changes required for the industrial plan implementation:

Planning units will be set up within the operating ministries, such as those existing within the Ministry of Agriculture and the Ministry of Commerce and Industry.

Economists in the civil service will be transferred to any ministry as deemed necessary.

Provincial Planning Officers will be appointed to all provinces.

In order to strengthen the Central Planning Organisation, three proposals have been put forward:

- National Rural Development Committee;
- National Development Advisory Committee to overcome the inadequate communication between the Central Government and the private sector, particularly in matters relating to plan formulation and implementation.
- Project Preparation and Evaluation Unit. This will be set up to prepare projects and programmes. It will also develop criteria and techniques for project preparation and evaluation. These procedures will be consistent amongst all operating ministries.

New procedures will be devised to evaluate the rate of plan implementation.

Ministries will be required to indicate problems arising due to manpower shortages.

The preparation of annual financial estimates will be more closely integrated with the financial estimates contained in the plan.

In order to obtain the people's full support of the plan, a publicity campaign will be channelled through radio, television, pamphlets, popular versions of the plan and so on.

7. Problem areas particular to the industrial sector:

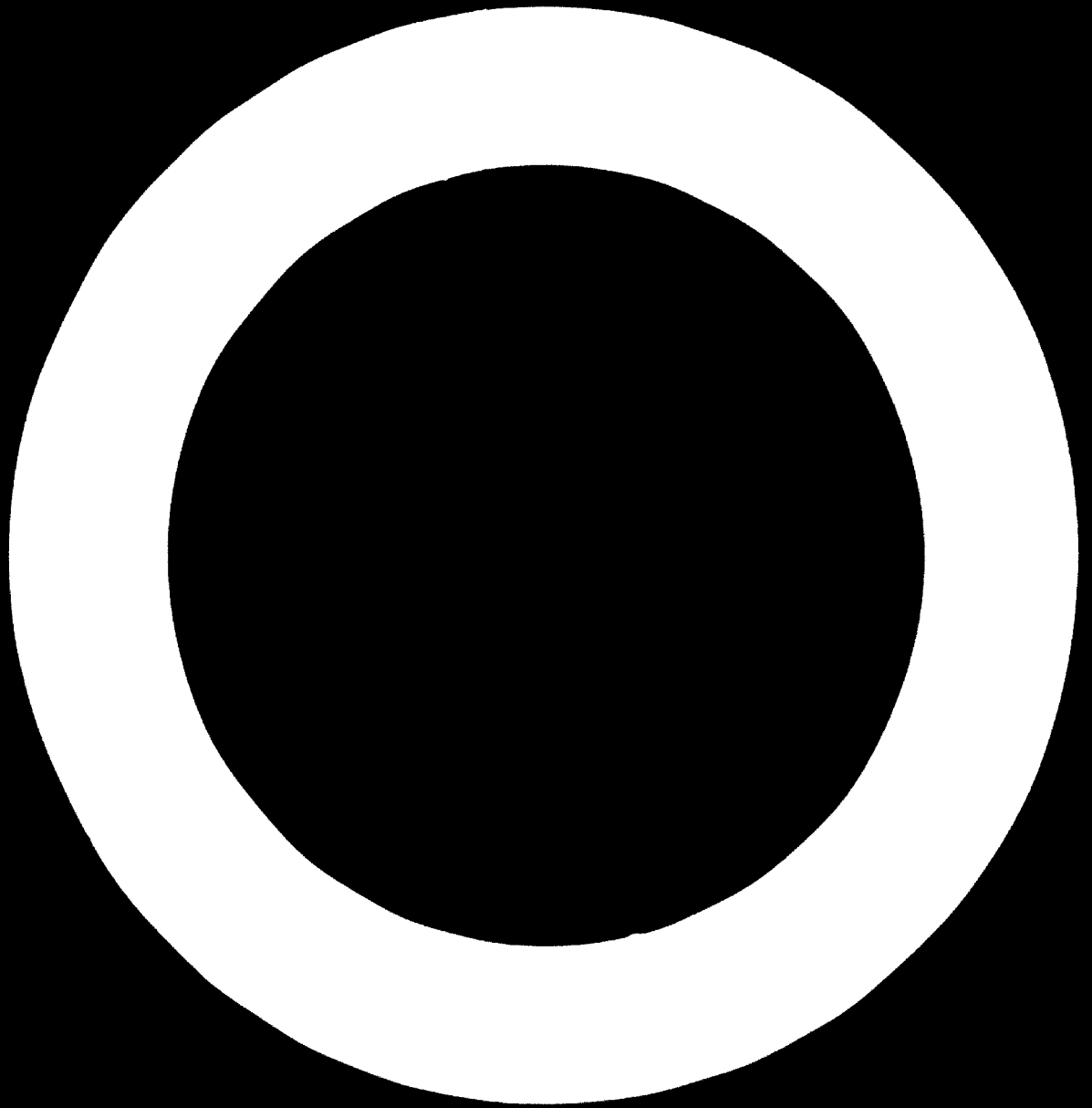
It is the aim of the Second Development Plan to overcome all the problems encountered through the First Plan period. <sup>2/</sup> Whether this will be possible or not is difficult to estimate in detail by now.

Certainly, there will be a shortage of manpower in general and of planning economists working for the Kenyan Government.

In mining, it will be difficult to attract overseas skills and capital for the exploitation of mineral resources and to create new demand for some of the mineral resources, since only a small number of local manufacturing industries use mine products as raw materials.

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<sup>2/</sup> See also Part I, Chapter 11





SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF  
THE UNITED REPUBLIC OF TANZANIA: 1969 - 1974 <sup>\*/</sup>

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

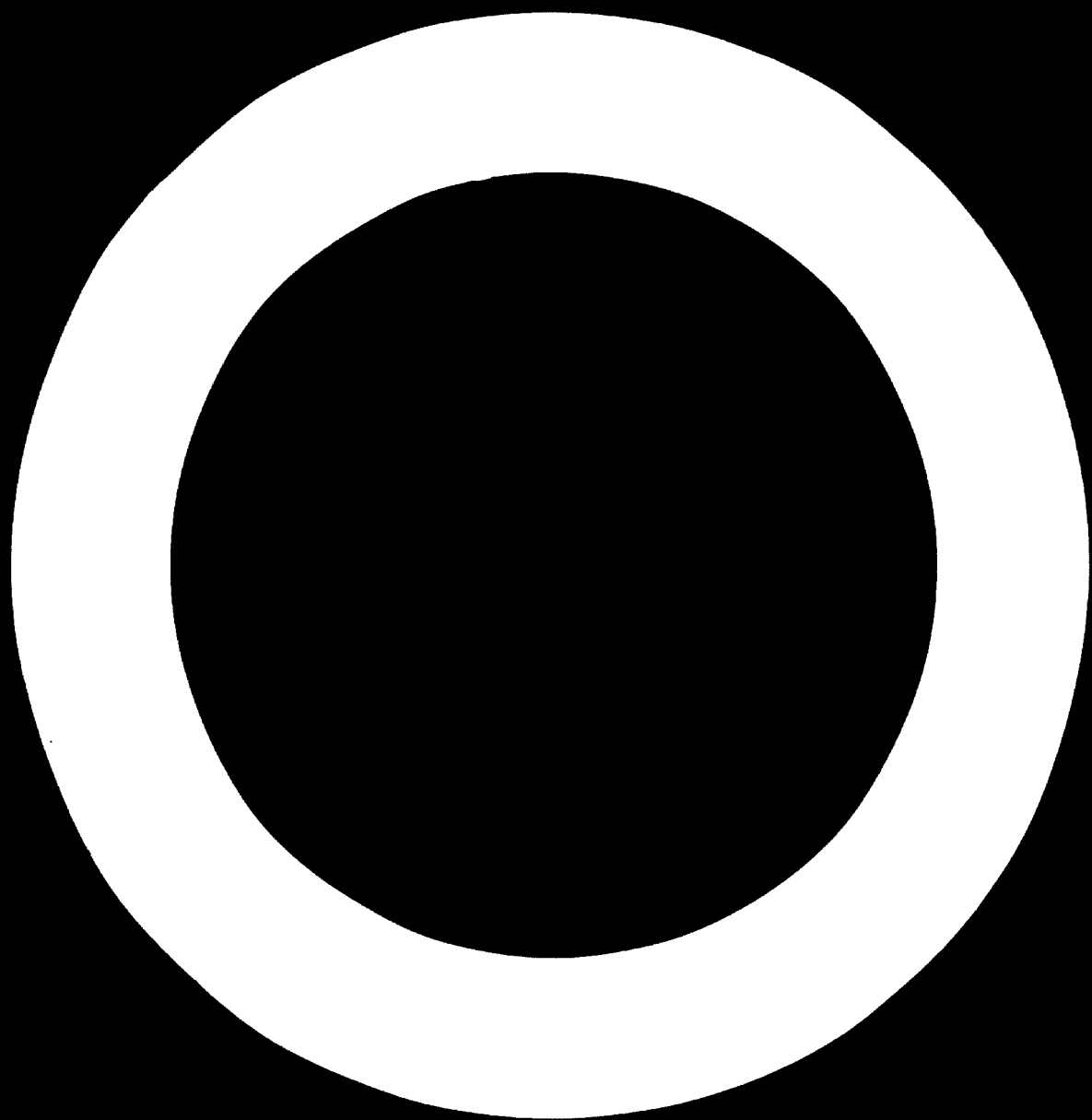
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<sup>\*/</sup> Second Five-Year Plan for Economic and Social Development,  
1 July 1969 - 30 June 1974; Volume I: General Analysis,  
Volume II: The Programmes, Dar es Salaam, 1969, pp. 342.

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1. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Tanzania

<u>Area:</u>	940,000 km <sup>2</sup>
Agricultural area	566,000 km <sup>2</sup>
of which: fertile	1,560 km <sup>2</sup>
Forests (tropical high forests, mangroves, woodland and grassland)	313,000 km <sup>2</sup>
of which: true forests	11,000 km <sup>2</sup>
Uncultivable land	approx. 2/3 of the total area

Major cities: (as per 1 January 1969)

	<u>Population</u>
Dar es Salaam	272,500
Tanga	60,900
Mwanza	34,900
Arusha	32,300

Other data:

	<u>Number</u>
Motor vehicles in use (1968)	66,501
Telephones (1968)	30,952

Annual electricity production: (1968) 25 kWh/capita

Exchange rates:

<u>Unit</u>	<u>Tanzanian sh equivalent</u>
US dollar	7.14
Pounds sterling	17.14
Swiss franc	1.65
French franc	1.28
German mark	1.93
Italian lire (100)	1.14

2. Population:

Employment by Branch of Activity in 1969

	<u>Number (000)</u>	<u>% of total</u>
Agricultural estate	115.4	31.3
Mining and quarrying	5.9	1.6
Manufacturing	40.3	10.9
Construction	52.8	14.4
Utilities	9.8	2.5
Commerce	18.7	5.2
Transport and communications	32.4	8.8
Services	92.6	25.3
<b>Total</b>	<u>367.9</u>	<u>100.0</u>

Over the last five years, the decline in agricultural estate employment, reflecting a rapid increase in labour productivity and a fall in output of rural industry, has normally tended to off-set the rise in non-agricultural employment. In 1969, however, employment increased in all sectors except in commerce and mining.

Employment in Major Urban Areas 1964-1967

Type of employment	<u>Dar es Salaam</u>		<u>Tanga</u>		<u>Nwanza</u>	
	<u>1964</u>	<u>1967</u>	<u>1964</u>	<u>1967</u>	<u>1964</u>	<u>1967</u>
Agriculture	1,349	1,529	394	268	355	612
Manufacturing	9,469	15,231	1,437	1,941	952	897
Construction	5,151	6,577	1,486	1,282	1,767	1,880
Electricity and water	1,051	2,266	412	539	72	264
Commerce	5,825	7,517	1,468	1,473	1,281	1,157
Transport and communications	10,243	13,188	2,407	1,578	990	1,080
Services	12,329	18,868	2,670	2,777	1,564	2,140
<b>Total</b>	<u>45,417</u>	<u>65,171</u>	<u>10,274</u>	<u>9,858</u>	<u>6,981</u>	<u>8,030</u>

**Education:**

Education is a joint undertaking by the Government, local authorities and voluntary agencies under the overall direction of the Ministry of Education. Most schools are either completely or partly financed from public funds.

Literacy rate is estimated at 15-20%; an intensive adult literacy campaign has been launched.

Number of schools:	Primary	3,721
	Secondary	65
	Vocational and technical	20
	Teacher training	21

The University of East Africa has one of its three colleges in Dar es Salaam.

Number of teachers (public schools only): primary 15,271 and secondary 1,306.

3. **GDP:**

	<u>1964</u>	<u>1968</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	2.5	4.2	13.8%
Total GDP/capita (\$)	61.0	66.0	1.9%
Population (000)	11,000	12,500	3.0%
Manufacturing GDP (million \$ U.S.)	27.0	53.0	18.3%
Total GDP (million \$ U.S.)	677.0	828.0	4.9%
Manufacturing % of total GDP	4.0	6.4	

In 1969, the gross domestic product rose in real terms by 3.0% (5.7% at current prices), compared with an average annual growth at constant prices of just over 5% for the period 1964-1969. The poor results for 1969 were due to setbacks in agriculture with a decline in some cash crops and also in the subsistence sector. The subsistence sector is estimated to contribute about 30% of the GDP.

Industrial Origin of Gross Domestic Product at Factor Cost

	<u>1964</u>	<u>%</u>	<u>1969</u>	<u>%</u>
	(million \$ U.S.)	of total	(million \$ U.S.)	of total
Agriculture	393	58.0	411	50.0
Mining and quarrying	17	2.5	15	2.0
Manufacturing	27	4.0	53	6.4
Construction	21	3.2	31	3.8
Electricity and water	5	0.7	8	1.0
Commerce	84	12.4	162	19.6
Transport	31	4.6	42	5.1
Services	99	14.6	100	12.1
<b>GDP</b>	<b>677</b>	<b>100.0</b>	<b>822</b>	<b>100.0</b>

4. Short-economic Indicators:

Money supply:

(million \$ U.S.)

	<u>1967</u>	<u>1969</u>
Total	161	244
of which demand deposits	88	160

Average annual increase (1967-1969): 23.3%

GDP:

1964 - 6677 million  
1968 - 8822 million

Average annual increase: 4.9%

Prices:

Retail Price Index for RFR in Salem

	<u>1964</u>	<u>1969</u>
Wage earner index (1969 = 100)	95.0	117.0



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

	<u>1966</u>	<u>1968</u>
Balance on current account	-2.7	-15.7
Balance of trade (o.i.f.)	7.4	-26.2
Travel	5.8	-3.0
Investment income	-19.3	-8.8
Other services	4.7	19.8
Private transfers	1.0	3.3
Government transfers	-2.3	-0.8
Balance on capital account	25.3	34.6
Private investments	17.3	10.7
Government loans	6.7	23.9
Banks and other monetary institutions	-4.4	-
Net errors and omissions	5.7	-
Net change in reserves (- indicates increase)	-22.6	-18.9

Central Government Revenue and Expenditure  
(million \$ U.S.)

	<u>1966-1967</u>	<u>1968-1969</u>
Current budget		
Revenue	142.4	176.0
Expenditure	137.2	166.0
Development budget		
Revenue	41.2	64.5
Expenditure	41.2	64.4
Overall balance	5.3	10.0

5. Industrial products and technology - non-manufacturing industries:

<u>Industry</u>	<u>Unit</u>	<u>1957</u>	<u>1958</u>
Cement	tons	-	153,001
Beer brewing	(M) gallons	1,062	5,661
Textiles	(M) sq. yds.	6,209	10,510
Cigarettes	millions	1,144	2,117
Paints	gallons	99,197	117,000
Plywood	(M) sq. ft.	2,000	10,600
Steel tubes	tons	-	10,600
Saw-milling	(M) cu. ft.	1,676	5,000
Wheat flour	tons	20,179	42,700
Lignin extract	tons	0	107

The growth of the manufacturing industry has been rapid in recent years, but it still accounts for a very small proportion of the gross domestic product. Production of consumer goods for the home market, substituting for imports, accounts for the largest part of the sector's output.

6. Industry - related resources and capacity:

At present, 20,000 ha of rubber plantation and 2,000 ha of fine hardwood plantations have been established. Of the indigenous forests, 4,000 ha have been cultivated.

Over the last five years, 5 million cubic feet have been extracted from the forests annually.

Afforestation programmes started in 1958. At the end of the Second Plan period, the annual yield from these plantations will have risen from 1 million cubic feet to 3 million cubic feet.

The consumption of industrial woods (excluding fuel wood and poles) annually increased by 10% over the past four years and amounts, at present, to 1 million cubic feet.

The present consumption of fuel wood is 600 million cubic feet per annum.

**Raw Sugar**

Principal crops	Yield (million S.T.S.)			Growth rates	
	1954	1958	1970	1960-1962-1968	1960-1962-1970 required
Steel	65.7	21.6	67.1	-8.4	6.1
Cotton	26.2	26.1	44.2	6.2	12.0
Coffee	21.1	32.6	34.2	11.4	9.1
Cashew-nuts	6.5	11.6	11.7	17.6	9.6
Sugar	7.8	10.4	12.9	14.4	13.7
Tea	4.1	6.1	12.0	6.5	12.1
Tobacco	1.7	4.2	3.4	16.1	11.4
Pyrethrum	1.7	2.6	3.9	13.2	15.1
Wheat	1.8	2.1	-	13.5	-
Ground-nuts	2.2	1.8	1.0	-1.4	13.5

Crop targets for the First Plan were set in terms of 1970. Targets for cashew-nuts, tobacco and pyrethrum had already been met by 1967. The coffee target was virtually achieved in the 1966 season. The cotton target was almost reached as early as 1966, but in two bad seasons, subsequently the output growth was checked. However, there is every likelihood that the Plan target will be met by 1970. The same applies to wheat. In the case of tea, it is likely that the target will be slightly falling short in being met by 1970, but the growth has been considerably high.

The most substantial short-comings could be noticed in the steel and ground-nuts production.

Yining:

Mineral Production and Exports

(million \$ '000)

<u>Year</u>	<u>Total mineral production</u>	<u>Total mineral exports</u>	<u>Exports as percentage of production</u>
1964	24.7	21.9	87
1965	14.7	14.0	95
1966 (provisional)	21.0	21.4	95

Note: The above figures do not include building minerals as the collection of statistics for these minerals was discontinued five years ago. Moreover, as no royalty is paid on the output of these minerals and rents are collected instead, it is not possible to estimate current production levels.

If building minerals, for which no estimates are available, are excluded, more than 95% of the aggregate mineral production is exported. There is an almost complete lack of mineral-based industries within Tanzania.

The fluctuations in the annual mineral production follow the changes in the annual output of diamonds which account for over 80% of the total mineral production by value. The estimated life of the existing deposits is about 10 years and the annual output during the Second Plan period will be considerably lower than in the First Plan. Gold accounted for more than 10% of the total mineral production until 1965, but with the closure of two main goldmines, Geita and Tangold in 1966, the relative share of gold has dropped to about 2%. The only remaining major gold producer is the Bukoba Mine, which is also scheduled to be closed by the middle of 1970. Thereafter, until such time as new deposits can be exploited, the gold production will be negligible.

Other production consists of salt, tin concentrates, gems, mica and small quantities of magnesite, tungsten, lime, gypsum, sand-glass, kaolin, coal and peat, etc. Of these, coal, sand-glass, kaolin, gypsum and lime are largely for internal consumption. Besides meeting the domestic demand, salt is exported in considerable quantities. The remaining minerals are for export.

Electric power:

Existing and Potential Hydroelectric Power Schemes

<u>River</u>	<u>Name of Site</u>	<u>Installed capacity in MW</u>	<u>Remarks</u>
Pangani	Pangani Falls	17.50	Built 1938
	Hale	21.00	Completed 1964
	Nyumba ya Mungu	8.00	Under construction. Multi-purpose dam.
	Moshi 1	1.16	Existing
	Moshi 2	13.50	Proposed alternative to Moshi 2A
	Moshi 2A	5.00	Proposed alternative to Moshi 2
	Ruiko	2.00	Power irrigation project
	Nsimu	9.00	
Mani	Garaya	2.00	
	Pongwe	120.00	Multipurpose project. Figures are quoted for ultimate maximum development of hydropower.
Hingilili, etc.	Gonja	15.00	
Rugera	Rusumo and Kakono	100.00	Potential
Great Ruaha River	Kidatu and Ntera	200.00	Ultimate development
	"Lower Ruaha"	7.50	Mass concrete dam proposed
Rufiji	Kidunda	5.00	
	Stiegler's Gorge	500.00	95% firm power
	Iringa	54.00	Development of R.S.S. proposal
	Tosomanga	1.40	Existing
Kiwira	Nbeya	0.35	Existing
	Sites in the Nbeya region	233.00	Potential
	Total	1,315.00	

Note: The power potential of the Ruvuma and Malagarasi Rivers is not yet known and is, therefore, not included in the above figures.

Growth in Energy Sales

	<u>% per annum</u>	
	<u>1958-1962</u>	<u>1963-1967</u>
<b>Coastal System:</b>		
Dar es Salaam	14.1	22.7
Tanga	4.4	0.8
Morogoro	7.8	61.6
<b>Total</b>	8.7	15.3
<b>Moshi/Arusha System:</b>		
Moshi	10.1	5.9
Arusha	10.2	10.6
<b>Total</b>	10.1	8.1

Total local sales (excluding export to Benghazi) in the mainland Tunisia show the percentage growth over the six-year period 1962-1967 as follows:

Domestic	27%
Commercial	59%
Light industrial and maximum demand	118%
Lighting of the streets	53%
Total	<u>78%</u>

Of this overall growth of 78% (1962-1967), Bar es Salamm alone accounted for 90%.

**Summary**

**Expenditure Commitments on Roads During the First Five Year Plan**  
(million \$ U.S.)

Year	Total road expenditures		Trunk roads and major links roads		Major feeder roads		Minor feeder roads		Small roads	
	\$	%	\$	%	\$	%	\$	%	\$	%
<b>Actual expenditures</b>										
1954-1955	3.2		1.3		41	0.3	9	1.3	42	0.3
1955-1956	4.0		1.3		32	0.9	22	1.5	36	0.3
1956-1957	10.3		6.6		64	2.8	27	0.3	3	0.6
<b>Budget estimates</b>										
1957-1958	12.6		6.1		49	5.4	43	0.1	1	0.9
1958-1959	17.1		10.6		62	4.8	28	0.4	25	1.2
<b>Plan total</b>	<u>47.2</u>		<u>25.9</u>		<u>55</u>	<u>14.2</u>	<u>30</u>	<u>3.6</u>	<u>8</u>	<u>3.3</u>
<b>Original plan estimates</b>										
Five-Year Plan and Three-Year Plan carry-over	38.8		17.0		44	15.2	39	4.3	11	2.4

**Main Exports**  
(million \$ U.S.)

	1962-1963			1967-1968		
	<u>Volume</u>	<u>Value</u>	<u>% of Total</u>	<u>Volume</u>	<u>Value</u>	<u>% of Total</u>
Cotton (000 tons)	40.3	25.3	15.1	60.4	37.4	16.5
Coffee (000 tons)	25.9	18.9	11.3	46.1	35.1	15.5
Sisal (000 tons)	216.8	53.8	32.2	117.7	25.2	11.1
Diamonds (000 carat)	618.2	14.6	8.7	835.2	25.1	11.1
Petroleum (million gallons)	-	-	-	117.7	20.7	9.2
Carbor-ants (000 tons)	50.7	6.2	3.6	74.1	13.6	6.0
Cleves (000 tons)	9.5	7.1	4.2	14.3	10.5	4.6
Meat (000 tons)	5.9	5.9	3.5	5.7	6.4	2.8
Oilseeds (000 tons)	63.6	8.8	5.2	38.3	6.2	2.7
Tea (000 tons)	3.9	4.5	2.6	6.3	6.2	2.7
Tobacco (000 pounds)	891.0	0.3	- 10,046.0		5.2	2.3
Others	n.a.	21.4	12.8	n.a.	34.7	15.4
<b>Total</b>		<u>166.8</u>			<u>226.3</u>	

Although Tanzania suffers from an excessive dependence upon primary commodities as a source of export earnings, some success has been achieved in diversifying the range of primary commodity exports, i.e. declining trends on the world sisal market were partly counterbalanced by a fast expansion in the exports of other commodities.

**Main Imports\***  
(million \$ U.S.)

	1962-1963		1967-1968	
	<u>Value</u>	<u>% of Total</u>	<u>Value</u>	<u>% of Total</u>
Consumer	67.2	47.0	76.7	33.0
Intermediate	22.3	15.0	39.9	17.0
Transport equipment	14.0	10.0	31.8	14.0
Capital goods	38.5	26.0	83.6	35.0
Miscellaneous	3.6	2.0	4.2	1.0
	<u>144.6</u>	<u>100.0</u>	<u>236.2</u>	<u>100.0</u>

\* mainland only



The basic situation has not yet been fundamentally changed. Imports of feedstuffs have been growing very high. With the urbanisation, the domestic market for food products is expanding very fast.

7. Overall economic development strategy and policy:

Industrial strategy in the First Plan period emphasized the development of these categories of industry:

- the additional processing of primary products (this was implemented to a limited degree in relation to sisal, coffee, and cashew-nuts);
- the import-substitution of certain mass-produced consumer goods whose technical characteristics allow their manufacture at an acceptable level of efficiency and on the basis of the East African market (for example; textiles);
- the manufacture of building materials such as cement which would be in heavy demand as a result of the implementation of the large investment programmes.

8. Regional co-operation:

Tanzania, together with Kenya and Uganda, is a member of the East African Community (EAC). The three countries have a common development bank, a common external tariff and a single management organisation for the East African airline, the railroads and the ports. Besides the creation of a unified market of 30 million people, the EAC offers great potential opportunities for co-ordinating the economic development and provides industrial possibilities for all three countries which would not exist on a national basis.

Another important step in the direction of the improved economic co-operation with neighbouring countries is the construction work on the Tanzania - Zambia road which is now under way as well as the planned construction of the Tanzanian railway.

**Trade with Korea and Canada**

1964-1968

(million \$ U.S.)

	Korea			Canada		
	Import from	Export to	Balance	Import from	Export to	Balance
1964	266	82	-184	48	20	-28
1965	282	91	-191	52	27	-25
1966	266	76	-190	62	17	-45
1967	228	66	-162	49	15	-34
1968	261	74	-187	41	17	-24

**9. Systems for planning and plan implementation:**

The key institutions involved in industrial planning are the Ministry of Commerce and Industry, the Ministry of Economic Affairs and Development Planning (Dowplan) and the National Development Corporation.

The project planning process consists of four stages:

- the identification of the major areas of possible development and setting-up of preliminary macro-economic projections based on the availability of manbets, capital requirements, etc. The responsibility for this work is vested in Dowplan in consultation with the Ministry of Industries and the Treasury who report periodically to the Economic Committee of the Cabinet;
- prefeasibility stage: the primary responsibility for this task lies with the Ministry of Industry which uses the Industrial Studies Centre for this purpose;
- feasibility study: the collection of detailed information about the technological processes to be used, the required equipment and operating costs with the help, if necessary, of outside consultants. The project is also checked for the consistency with plan objectives at this stage;
- final planning decision: undertaken by the Ministry of Commerce and Industry which is also responsible for follow-up policy measures required to ensure implementation.

The central institution for implementing industrial projects is the National Development Corporation.

10. Problems encountered through the services plan period:

A shortage of skilled manpower delayed the programme implementation in the first years of the plan.

The target rate of growth of GDP has not been achieved. Instead of an annual rate of 6.7%, only approximately 5% have been achieved. The causes are as follows:

- a short-coming in the crop of husbandry, largely the result of the poor growth of the sisal output following the sharp change in market prospects in 1965;
- industrial activity was too low to generate the industrial growth suggested in the plan;
- in the early years of the plan, part of the growth in the construction sector was absorbed by rising construction prices;
- the rate of growth of the services sectors was over-estimated.

The retail co-operative system did not prove successful and had to be abandoned in 1966.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1969-1974

1. General goals and objectives:

(i) Planned growth:

	<u>1968-1969</u>	<u>1973-1974</u>	<u>Average annual increase</u>
Manufacturing GDP/capita(\$)	4	7	11.0%
Total GDP/capita (\$)	49	65	5.9%
Population (000)	12,900	14,200	2.7%
Manufacturing GDP (million \$ U.S.)	54	99	13.0%
Total GDP (million \$ U.S.)	635*	920*	7.7%
Manufacturing % of the total GDP	8.5	10.8	
Consumption (domestic)	will increase by \$112 million over the five years of the plan		
Exports (million \$ U.S.) (1969-1970)	277	345	4.5%
Investment (million \$ U.S.) (1969-1970)	182	267	10.0%
Employment in industry (000)	240	348	6.0%

\* Estimates at 1968-1969 prices. The figures refer to outputs of the monetary sector only. Estimates for non-monetary GDP (agricultural) are \$228 million (1968-1969) and \$265 million (1973-1974).

(ii) Other objectives:

The general objectives are:

- to spread the benefits of development widely through the society;
- to encourage collective and co-operative efforts and avoid the creation of disparities in wealth and income;
- to ensure the maximum mobilization of domestic resources;
- to expand productive capacity so as to create the basis of future economic growth and social transformation;
- to extend economic co-operation with other African States.

The objectives for the manufacturing sector are:

- to expand the range of manufactured products and to reduce the dependence on foreign sources of supply both for essential consumer goods and for capital goods;
- to increase the manufactured element in exports;
- to shift trade dependence away from overseas to domestic and African markets;
- to develop managerial and technical expertise in the operation of industry and to introduce modern technology.

## 2. Strategy and policy:

### (i) General:

At the outset of the plan period the programme for industry will proceed along the lines already established during the First Plan. This involves the implementation of an essentially ad hoc set of projects in the following areas:

- the production of consumer goods using simple technology and aiming at the domestic and East African markets;
- the further processing of primary products;
- the manufacture of building materials;
- petroleum refining;
- the development of industries supplying inputs to agriculture.

More systematic industrial programming and the identification and preparation of projects to meet the more complex requirements of the next stage of industrialisation (when the possibilities of import-substitution of consumer goods are exhausted) will be undertaken during the period.

The main responsibility for industrialisation will be vested in the public sector following the principles enunciated in the Arusha Declaration; an organisational structure of sufficient capacity to carry out this task will be created.

Industries will be divided into four categories as regards ownership:

- wholly Government controlled: industries considered strategic such as petroleum refining, armament manufacture;
- Government controlled: basic industries in which the Government will acquire the majority voting and participating shares in order to exercise a decisive policy control;
- joint ventures: industries on which a large section of the population depends for its living; Government or its appointed agencies will play an active role;
- open industries: these industries will be freely open to both domestic and foreign investors. The Ministry of Commerce and Industries will provide guidance to co-operatives, workers' organizations and private investors regarding investment opportunities in this category.

Fiscal and/or administrative protection to new industries will be accorded, not as a permanent subsidy to inefficient producers, but as a temporary measure to help overcome initial obstacles.

Industrial location policy will be formulated and applied with the aim of achieving balanced regional development.

Small industries employing 10 - 70 workers will be promoted; in the industrial programme, plants of this size account for 60% of the projects, for 17% of the projected investment, for 10% of the resulting output, and for 17% of the expected employment.

The possibilities for promoting the development of handicrafts and cottage industries will be explored.

(ii) Manpower and productivity:

Education:

- to achieve self-sufficiency at all skill levels in the economy by 1980;
- to give every child a basic education (primary) as soon as the financial circumstances of the Government permit it (i.e. by 1989);
- to provide additional or further education (secondary, technical and university) only to the extent justified by the manpower requirements of the economy for development;
- to support students by scholarships in post-secondary courses which will produce the specific skills needed for development.

**Basic education (primary):**

Overall enrolment in primary schools will increase from 850,000 in 1969/1970 to 1,140,000 in 1973/74.

**Further education (secondary):**

<u>Occupation Demand</u>	Demand (estimated requirement <u>1969-1974</u> )	Supply Form 4 Output planned to <u>meet demand</u>
Category A - occupations	3,849	
Category B - occupations	12,333	
Category C - occupations	13,109	
Safety margin (including provision for wastage from Form 5 through to university graduation and from category B training schools), 23%	8,090	
Form 4 output		
Government financed schools		33,844
Private secondary schools		<u>3,697</u>
Total	37,341	37,341

Jobs are classified as follows:

- Category A jobs: require university degree; about 3,850 jobs will be required during the Five Year Plan;
- Category B jobs: these are posts which require a one to three-year general training after completion of the secondary school;
- Category C jobs: require a secondary school education; about 13,100 jobs will be required during the Five Year Plan.

**TABLE 10. PERSONNEL, 1969-1971**

CATEGORIES	1971			Total 1969
	Existing	increase in	Decrease and	
	PERSONNEL	PERSONNEL	PERSONNEL	
Technicians, general	10	61	11	116
Engineering technicians, general	178	419	18	748
Engineering technicians, textile	0	75	26	49
Engineering technicians, patrol	1	—	1	1
Total engineering technicians	271	711	76	1058
Technicians, research laboratories	6	17	6	29
Technicians, industrial laboratories	9	67	9	85
Total laboratory technicians	15	84	15	114

All engineering technicians and draughtsmen are at present trained at the Bar in Sultan Technical College. Courses in accountancy, management, business administration, etc. will be transferred from the Bar to Sultan Technical College to a new central institution. It is also considered to expand the activities of the College of Business Education.

**TABLE 11. STUDENTS - MAINTAINING LEVEL**

YEAR	Number of students qualified to enter		Number of offered places		University output anticipated	
	1970	1971	1970	1971	1970	1971
1969-1970	227	110	227	110	109	110
1970-1971	295	110	215	110	100	110
1971-1972	520	219	520	219	201	219
1972-1973	611	225	524	219	188	219
1973-1974	622	212	522	212	182	212
Total	2,275	1,076	2,028	1,050	1,079	1,150



**LABOUR TRAINING:**

The following programmes will be implemented:

- The National Industrial Training and Apprenticeship Scheme;
- The National Employment Service Development;
- The National Institute for Productivity;
- Expansion of the Post-Office Inspectorate;
- National Provident Fund.

The National Institute for Productivity will concentrate on a basic course during the Second Plan:

- Industrial Engineering Middle management, 400 participants
- General Management Supervisory staff, 500 participants
- Management Accounting Accountants and staff employed in accountancy work, 250 participants
- Marketing and Sales Sales personnel, 750 participants
- Personnel Management Personnel Officers and Staff employed in personnel work, 400 participants
- Supervisory Training Supervisors and staff in charge of others, 1,200 participants
- Workers' Education This activity will involve all members of workers' committees, 2,500 participants
- Productivity Information Statistics Research work involving about 40 industries a year. This section will be involved with the work of the Permanent Labour Tribunal.

**OTHER TRAINING:**

Programmes for training workers for small-scale and cottage industries will be expanded, and improved facilities at the Cottage Industries Centre in Bar on Salem will be expanded at an estimated cost of \$166,700.

Specialised centres will be created to cater for technical and other requirements of small industries.

A textile institute will be set up to aid plants with technical and marketing advice.

An Institute of Development Management is proposed to be set up to train managers for industry.

Wage policy:

The Permanent Labour Tribunal has been set up to implement the National Wages and Income policy.

Concerning the minimum wages, the Government has agreed that the basis of the minimum wages should be determined by a realistic comparison of the actual living standard and efforts of a farmer and his family to the efforts and living standard of a rural wage earner. For those employed in urban areas, an allowance will be made for the extra costs of living in town.

In general, the income and price policy should ensure that money income expands in a manner that conforms to national economic and social objectives.

Labour productivity:

It is assumed that the labour productivity will increase by 3% per annum.

Employment:

Industrial employment is expected to increase by approximately 20,000 during the Plan period and will exceed 60,000 in 1975.

**Estimated Non-agricultural Employment Increases -  
Second Plan Based on 6% Target**

<u>Industry</u>	1968-1969	1973-1974			
	base year	Estimated employment 1968-1969 (000)	Annual rate of GDP increase in %	Estimated employment 1973-1974 (000)	% in estimated annual increase in productivity
Mining/quarrying	6		-2.5	6	-2.5
Manufacturing	36		13.0	57	3.0
Construction	49		10.0	71	2.0
Utilities	10		12.0	18	-
Trade	25		8.0	37	-
Transport communication	32		9.0	42	3.7
Services	92		5.0	117	-
<b>Total</b>		<b>250</b>	<b>-</b>	<b>348</b>	<b>-</b>

Increase in % in non-agricultural employment: 7% per annum.

**Note:** The industrial activities of the Government e.g. construction, etc. are included in the appropriate sectors above.

The 1973-1974 employment projections for the various industrial sectors (except Government and services) have been estimated by the application of estimated annual increases in productivity. These were derived from Tanzania's experience in the first four years of the First Five Year Plan.

In 1968-1969, employment is estimated from the Central Statistical Bureau's annual enumeration of employment trends over the past several years including the preliminary estimates for 1968.

In the case of mining, one large project may involve substantial employment towards the end of the plan period although it will not generate the output until the Third Plan. The net employment effects of changes in mining are not yet evident; for the moment it is assumed that employment in mining remains unchanged.

**(ii) Investment and capacity utilization:**

The investment target is estimated at \$1,132 million between 1969 and 1974.

It is planned to raise the ratio of capital formation to a total GDP of 2% by the end of the plan period.

**Phasing of Planned Investment in Development**  
(million \$ U.S.)

<u>Year</u>	<u>Central* Government</u>	<u>Parastatals**/ and co-operative establishments</u>	<u>Private</u>	<u>East African Community</u>	<u>Total</u>
1969-1970	74	42	52	14	182
1970-1971	80	53	56	17	206
1971-1972	88	64	60	17	230
1972-1973	91	76	64	17	248
1973-1974	94	87	69	17	267
<b>Total</b>	<b>427</b>	<b>322</b>	<b>301</b>	<b>82</b>	<b>1,132</b>
<b>Annual growth:</b>					
1969/1968-					
1973/1974	10%	20%	7%	see *** below	14%

\*/ Not including the contribution to parastatals; including an estimated \$42.7 million contribution to local costs of the Tugela railway.

\*\*/ Including the contribution from the Central Government.

\*\*\*/ The phasing of the East African Community estimates represents a rough judgment regarding a likely implementation of plans. However, errors in this total do not greatly affect the other elements in the table as East African projects are mainly external or self-financed. 1972-1973 and 1973-1974 may well be higher as a result of subsequent plans.

Capital Expenditures (All Sectors) by Economic Classification (1962-1974)  
(million U.S.)

	<u>Central Government</u>	<u>Parastatals</u>	<u>East African Corporations</u>	<u>Private Sector</u>	<u>Total</u>	<u>\$</u>
Directly productive activities	30.4	198.3	-	178.5*	407.2	37.5
Research, surveys and investigations	23.9	0.3	-	-	24.3	2.2
Power, water and sanitary services	34.3	64.0	-	-	98.3	9.0
Other economic infrastructure	227.0	9.0	81.2	30.5	356.5	32.8
Social infrastructure	44.2	48.7	-	84.0	176.9	16.3
Administration and security	24.3	-	-	-	24.3	2.2
<b>Total</b>	<b>395.0**</b>	<b>320.3</b>	<b>81.2</b>	<b>304.0</b>	<b>1,087.5</b>	<b>100.0</b>

\*/ including transport

\*\*/ excluding \$42.7 million local costs for the Tazara railway

Central Government Development Expenditures  
(million U.S.)

Highways	89.00
Land survey	41.30
Roads	25.30
Canals	129.10
Education	41.60
Health	11.80
Wages	4.90
Salaries	2.30
Supplies	1.90
Foreign	1.60
Central establishments	4.20
President's Office	0.03
Second Vice-President's Office	0.05
Judiciary	0.10
National service	3.90
Defense	14.70
Rent	9.90
Total	<hr/> 189.00

**Investments in Foreign Corporations (1969-1974)**  
(in \$ U.S.)

	1969-1970	1970-1971	1971-1972- 1973-1974	Total 1969-1974	Government Contributions
<b>AMRSCO</b>	6,135	13,175	44,663	63,973	24,360
National Development Corporation				109,310	
National Agriculture and Food Corporation	20,650	21,540	111,242	15,722	
Tennessee Tourist Corporation				28,421	33,600
National Small-scale Industries Corporation	87	699	328	914	
State Trading Corporation	830	992	980	2,803	14
Tennessee Steel Corporation	1,360	2,300	8,606	12,946	2,800
Lint and Seed Marketing Board	-	497	1,163	1,660	-
National Agricultural Products Board	761	1,909	830	3,500	-
Tennessee Tobacco Board	777	111	102	989	-
Tea Authority	1,743	1,269	9,401	12,393	1,600
National Dairy Board	1,092	70	98	1,260	-
National Milling Corporation	244	83	1,006	1,414	-
National Housing Corporation	3,850	3,930	31,150	38,930	15,400
National Parks	632	910	2,617	4,159	2,940
National Computer Corporation	-	280	280	560	560

Parastatals: Investment Programs (1969-1974) (continued)  
(000 \$ U.S.)

	<u>1969-1970</u>		<u>1970-1971</u>		<u>1971-1972-</u>		<u>Total</u>	<u>Government</u>
	<u>1969</u>	<u>1970</u>	<u>1970</u>	<u>1971</u>	<u>1971</u>	<u>1972</u>		
Bank of Tanzania	175	337	140	640	-	-	-	-
National Insurance Corporation	725	745	630	2,100	-	-	2,100	-
National Bank of Commerce	560	560	2,520	3,640	-	-	3,640	-
National Co-operative Bank	50	17	112	179	-	-	179	-
National Development Credit Agency	56	56	115	227	-	-	227	224
Co-operatives	1,400	1,540	11,060	14,000	-	-	14,000	-
Others	140	140	280	560	-	-	560	560
<b>Total</b>	<b>41,836</b>	<b>51,030</b>	<b>227,433</b>	<b>320,101</b>	<b>-</b>	<b>-</b>	<b>81,098</b>	<b>81,098</b>
B.D.C.A. (medium and long-term credits)	3,876	3,652	12,660	20,080	-	-	20,080	9,200
B.B.I.C. - net lending	84	98	332	514	-	-	514	-
<b>Total</b>	<b>45,800</b>	<b>54,810</b>	<b>240,223</b>	<b>340,695</b>	<b>-</b>	<b>-</b>	<b>90,958</b>	<b>90,958</b>

Note: This table includes net medium and long-term lending by B.D.C.A. and B.B.I.C. which is not a direct investment activity by the parastatal sector. For the overall targets, the total investment target for the parastatal sector has been rounded to \$322,000.



**Parastatal Investment by Economic Classification 1969-1974**  
(000 \$ U.S.)

	<u>1969-1974</u>	<u>% of the share</u>
Mining	420	0.1
Manufacturing and processing	107,448	33.5
Agriculture - food	3,500	1.1
Agriculture - commercial crops	38,276	11.9
Agriculture - livestock and fisheries	1,260	0.4
Tourism	32,568	10.2
Agricultural and allied research	288	0.1
Surveys and investigations	47	-
Electricity	63,973	20.0
Storage	8,960	2.8
Housing	48,720	15.2
Others	14,840	4.6
<b>Total</b>	<u>380,300</u>	<u>100.0</u>

**Private Sector Investment**  
(million \$ U.S.)

Housing	84.0
Other building	38.5
Transport	109.0
Construction equipment	39.0
Other machinery	30.5
<b>Total</b>	<u>301.0</u>

The realization of the investment targets will require:

- the vigorous mobilization of investment requirements through the Government budget and a tax policy that ensures that revenues grow faster than monetary incomes;
- restraints on the growth of non-development expenditures;
- an increase in channelling savings to the public and parastatal sector through various public financial institutions.

4. Planned growth of industrial sectors:

(i) Planned growth of manufacturing sectors:

It is expected that the value added of all industrial activities will grow by 13% annually during the Second Plan. In particular:

- the textile industry is assumed to be doubled;
- wood manufacture and non-metallic mineral production will grow, primarily due to construction activities;
- rubber production will expand due to the establishment of a tyre factory;
- chemicals will be doubled as a result of the implementation of the proposed fertiliser production programme;
- the food and beverage branch will grow at a considerably high rate.

In detail, the sectoral programmes for manufacturing industries are:

Food, beverages and tobacco: This branch is already the most developed part of the Tanzanian manufacturing sector. The basis for its growth lies both in the ambitious programme of agricultural expansion incorporated in the plan and in the rapidly growing urban market. Project possibilities in this branch are thus generated by three factors:

- fast growing demand for certain beverages and foodstuffs;
  - import substitution possibilities, due to existing dependence on imports for some foodstuffs, notably dairy products;
  - export possibilities for certain processed foodstuffs, such as canned meat.
- Over one quarter of the industrial projects fall in this branch. Many of the projects in this branch are of a small scale in a number of cases involving the development of existing activities.

Projects aimed at meeting local demands are proposed in grain milling, sugar refining, bakery products, confectionary, brewing, tobacco processing, animal and poultry slaughter and packing, fish processing, animal food concentrates and dairying.

Projects emphasizing the export market are proposed in meat canning and cashew processing.

Oil milling and fruit and vegetable preserves will be developed both for the domestic and export market.

The development of fish processing, fruit and vegetable preserves, poultry packing and dairying are heavily dependent on a new break-through being achieved in agriculture and fishing. Likewise, expansion in meat canning is contingent on the success of policies for generating a faster growth in the availability of animals for slaughter.

In the case of beer brewing and grain milling, the basic limitation on the expansion will be the rate of growth of the domestic market.

Sugar manufacture will grow due to two expansions and one new project. It is a straightforward effort to satisfy the growing domestic market.

Over the longer term, the growth of the cashew processing branch will probably be of the order of 7-10% per annum depending on the agricultural performance.

of the plan, when work on the expansion of the oil refinery becomes necessary, the capacity for the production of asphalt will also be created.

Apart from the oil refinery, the existing chemical industry produces on a small and medium-scale, concentrating on simple products. Basic chemical production is characterised in many lines by the heavy use of capital and the existence of economies of scale. Over the longer term, systematic long-term planning will be required to co-ordinate the growth of interrelated subsectors and to phase growth appropriately to avoid highly expensive over-capacity at some stage.

The output of chemical products, other than oil refining, will more than double. The growth of oil refinery products will be insignificant during the plan as the growth in domestic demand will be compensated for by a decline in exports.

#### Non-metallic mineral products:

The cement industry will be expanded to meet the demand resulting from the growth planned in the construction activity. There are also a number of projects to increase the range of building materials produced domestically; there is still room for import-substitution in this sector. During the Second Plan output is expected to double.

#### Basic metal industries:

An important project in the plan, therefore, consists of investigating the possibilities of creating an iron and steel industry. There are also some possibilities for medium-scale metal-working projects using imported materials, including the possibility of a small steel rolling mill.

#### Fabricated metal products, machinery and equipment:

During the plan, the farm implements factory built in the First Plan will come into full production. There are also a large number of small and medium-scale possibilities in fabricating simple metal products for the building trade, assembly and parts manufacture of simple standard

machinery, of mechanical and electrical household appliances and of transport equipment. Essentially during the coming plan this range of industries will be at the pilot stage during which know-how can be acquired.

The assembly of electric appliances, materials for electricity distribution, production of electric motors, etc, is envisaged. As this branch contains a number of possibilities which are quite new and many which can operate on a small and medium scale, there is a large number of project possibilities, but relatively few are in an advanced stage of preparation.

The possibility of small and medium-scale projects depends on the availability of technical and design advice and quality control from the centre. The creation of centres of technical advice in both mechanical and electrical engineering will, therefore, be an important element in the Second Plan industrial programme.

#### Exports

(million \$ U.S.)

	<u>1969-1970</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Annual growth rate %</u>
Domestic exports	253.7	265.6	278.2	291.6	305.9	5
Re-exports	7.7	8.5	9.4	10.4	11.3	10
Community	16.1	18.5	21.3	24.5	28.1	15
<b>Total</b>	<b>277.5</b>	<b>292.6</b>	<b>308.9</b>	<b>326.5</b>	<b>345.3</b>	<b>6</b>

#### Imports

(million \$ U.S.)

	<u>1969-1970</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>Annual growth rate %</u>
Consumer goods	105.0	105.0	105.0	105.0	105.0	-
Intermediate goods	63.3	71.5	80.8	91.3	103.2	13
Transport equipment	30.5	33.3	36.3	39.5	43.1	9
Capital goods	90.8	91.3	102.2	110.6	118.3	10
<b>Total</b>	<b>279.6</b>	<b>301.1</b>	<b>324.3</b>	<b>346.4</b>	<b>369.6</b>	<b>7</b>

**Domestic Industry and Exports**

(in billions of U.S. dollars)

	1958		1959	
	Domestic	Exports	Domestic	Exports
Coal	79.1	-	82.0	-
Gold	411.5	411.5	112.0	112.0
Silver	5.7	5.7	1.0	1.0
Tin	950.0	950.0	1,071.7	1,071.7
Tungsten	71.0	71.0	109.0	109.0
Lime	100.0	-	100.0	-
Flint and sand-glass	10.1	-	69.0	-
Salt	1,100.1	207.0	2,070.0	710.0
Copper	17.5	0.6	77.0	-
Rice	100.1	100.1	200.0	200.0
Phosphate	60.7	60.7	60.0	60.0
Quartzite	101.0	101.0	170.0	170.0
Diamonds	10,000.0	10,000.0	11,000.0	11,000.0
Others	0.7	1.0	11.7	0.9
<b>Total</b>	<b>20,000.0</b>	<b>21,000.0</b>	<b>17,070.0</b>	<b>15,000.0</b>
Less material inputs	2,170.1		2,070.0	
<b>Net sector contribution</b>	<b>17,797.0</b>		<b>14,990.0</b>	
of which royalties	1,001.5		2,000.0	
Diamond levy	900.0		000.0	

Note: Figures for 1959 are provisional estimates.

Local sales of lime have widely fluctuated in the past.

(ii) Planned growth of electric power:

Generating capacities:	<u>Megawatts</u>
Coastal system: Total existing and planned capacity in 1969	87.0
North: Arusha: Total existing and planned capacity in 1969	15.5

Demand from the coastal system will increase from 52.5 megawatts in 1969 to 94 megawatts in 1974. From the North: Arusha system, this will increase from 6.5 megawatts in 1969 to 14.5 megawatts in 1976.

The demand from other branches is expected to increase from an estimated maximum demand of 816 megawatts in 1969 to 12.54 megawatts in 1974.

TANESCO estimated construction expenditure will total \$63,970 over the 1969-1974 period.

Investigation Studies 1969-1974

(000 \$ U.S.)

Stiegler's Gorge, Rufiji River	1,400
Kagera River Basin development	700
Total	<u>2,100</u>

Other provisions:

\$0.7 million will be allocated for the provision of electricity to small towns.

The electricity supply for some rural areas such as Kilimanjaro, Mbaroni and Takuru is under investigation.

(iii) Planned growth of piping:

(iv) Priority of systems:

(v) Infrastructural problems connected with industry:

Communications:

In general, the Government's road construction policy is based on the need to provide a country-wide "low cost road" system. The road development will be phased to meet growing needs but basic planning will take account of the projected long-term development.



First Priority Programs of Projects to be  
Implemented During the Second Five Year Plan

(million \$ U.S.)

Tanzam Road	<u>55.2</u>
Construction of trunk and major feeder roads	<u>33.4</u>
Usagara-Shinyanga 88 miles (bitumen)	5.7
Makuyuni-Oldani 45 miles (bitumen)	2.8
Bukoba-Kyaka 30 miles (bitumen)	1.5
Geita Peninsula Cotton Road	7.0
Dar es Salaam-Ragamoyo 20 miles (bitumen)	1.5
Mtwara-Mingoyo-Nasasi 126 miles (bitumen)	3.8
Msolwa-Ifakara 47 miles (engineered gravel)	2.2
Oldani-Nasasi (Arusha-Mwanza) 200 miles (engineered gravel)	8.0
Liganga Mine Access Road	0.9
Structural and pavement improvements to trunk and major feeder roads	<u>2.3</u>
Nasasi-Tunduru-Songea (282 miles)	0.8
Lushunga-Ngara-Rwanda (100 miles)	0.7
Bukoba-Mulemba-Biharemulo (100 miles)	0.3
Uvinsa-Mpanda (125 miles)	0.1
Tunduma-Sumbawanga (145 miles)	0.4
Betterment units	1.4
Additional plant or normal maintenance	1.4
Extra equipment for phased takeover of district roads	2.8
Minor feeder roads	3.5
Main roads in townships	0.7
Emergency bridging	0.4
Surveys and investigations	0.4
Staffing and training	0.4
Carry-over from the present plan	8.0
Total roads	<u>109.9</u>
Airports	<u>11.4</u>
Kilimanjaro international airport	9.8
Dar es Salaam interim improvements	0.9
Other small aerodromes	0.7
AFS equipment, crash tenders and buildings	0.8
Total aerodromes	<u>12.2</u>
Improved coastal shipping service Dar es Salaam - Mtwara (include an element for a survey of the coastal road Kibiti-Lindi)	1.4
Grand total roads and aerodromes	<u>123.5</u>

Tanzania - Zambia railway:

The rail link from Kapiri Mposhi in Zambia to Dar es Salaam will be 1,166 miles long. The first stage is almost completed.

In the overall financial estimates of the plan, an allowance of \$42.7 million has been made in the provision for development spending to cover the local costs of the project which are expected to accrue during the Second Plan period. Of this total, \$28 million are intended to be generated by drawing down commodity credits, the remainder to be contributed from the overall supply of local funds.

East African Corporation and Community Communications Services:

An important part of Tanzania's communications infrastructure is the responsibility of various East African institutions. Four self-financing corporations and two community institutions financed mainly through the general fund are involved.

The East African Corporations:

- East African Railways Corporation;
- East African Harbours Corporation;
- East African Airways Corporation;
- East African Posts and Telecommunications Corporation.

Community Institutions:

- Directorate of Civil Aviation;
- East African Meteorological Department.

5. Planned industrial projects:

Inventory of projects, investment and capacity:

The five-year industrial programme is based on a list of industrial investment possibilities consisting of some 385 projects (including 78 expansion schemes for existing plants).

The list represents a pool of investment opportunities which have been identified either at the pre-feasibility or feasibility study stage: some may be rejected or postponed and fresh projects may be added.

It is estimated that the overall plan goals will be met if only 70% of the investment opportunities identified at this stage are realized through project implementation. The minimum total investment that this rate of fulfilment represents is \$182 million resulting in a gross output of \$196 million (of which exports will account for \$49 million) and in the employment of 30,000-31,000 persons.

Projects to be implemented by the National Development Corporation are:

<u>Project</u>	<u>Estimated investment</u> <u>(000 \$ U.S.)</u>
Tanzania Tanneries	734
Coastal Dairy Industries	709
Tanzania Fertilizers Company	15,722
Timbo Chipboards Ltd.	710
Tabara Naitu	243
Sisal Pulp	50,300
Steel Rolling Mill	303
Tanzania Gemstones	139
General Tyre E.A.	8,679
Kaolin Survey	25
Distillery	300
Cashew Processing	83
Bicycles	594
Detergents	279
Saw-mills development	1,007
Kenaf Processing	3,499
Fruit and vegetable processing	134
Steel diversification	97
Salt expansion	419
Tegry Plastics	69
Shoe expansion	349
Asbestos pipes and sheets	3,135
Fibreboard manufacture	2,519
Furniture	699
Bicycle tyres and tubes	860
Fishery	699
Parquet flooring	139
Sisal bags	1,115
Starch manufacture	237
Tools	343
Sisal carpets	1,819

<u>Project (continued)</u>	<u>Estimated investment (000 \$ U.S.)</u>
Textiles diversification	1,675
Warp knitting stretch fabrics	279
Steel pipes	1,399
Cement expansion	3,359
Melting	1,539
Car batteries	379
IPB building	1,679
Total investment	<u>106,544</u>

Projects to be implemented by the National Small Industries Corporation (NSIC) are:

<u>Project</u>	<u>Estimated investment (000 \$ U.S.)</u>
250 industrial workshops and facilities centres (to be rented to artisans)	621
Fruit and vegetable processing projects	92
Ancillary industrial projects	122
Hire purchase loans for machinery	328
Participation in the share capital of selected industries	89
Loans to small industries	92
Headquarters	78
Total	<u>1,422</u>

Industrial Projects

Industry	No. of projects			Preparation stage		Investment (million \$ U.S.)	Gross output (million \$ U.S.)	Export (million \$ U.S.)	Employment	Investment per employee (\$ U.S.)
	I	II	III	I	II					
Manufacturing of food, beverages and tobacco	97	47	36	14	14	61.0	69.7	24.5	11,650	5,320
Textile wearing-apparel and leather industries	51	26	12	13	13	30.3	37.6	19.6	6,170	6,160
Manufacturing of wood, wood products including furniture	67	69	14	4	4	20.6	34.6	20.1	6,160	3,360
Paper and paper products manufacturing	12	8	1	3	3	69.7	27.6	17.0	2,300	21,700
Chemicals, including coal, petroleum and plastics	68	24	11	13	13	68.8	60.6	11.7	3,600	3,600
Non-metallic mineral products, except products of petroleum and coal	18	12	2	4	4	15.7	14.5	3.3	1,300	11,900
Basic metal industries	3	2	-	1	1	12.9	9.5	6.6	910	14,100
Fabricated metal products, machinery and equipment	77	50	5	14	14	20.2	30.1	4.8	5,050	4,400
Other manufacturing industries	12	9	-	3	3	1.4	2.2	1.1	620	3,360
<b>Total</b>	<b>395</b>	<b>235</b>	<b>81</b>	<b>69</b>	<b>69</b>	<b>270.6</b>	<b>266.6</b>	<b>108.7</b>	<b>37,620</b>	<b>7,200</b>

o/ Out of 395 projects 76 are expansions.

Sectoral Distribution of the Projects

	No. of projects	Investment	Output	Employment
Parastatal sector	43%	84%	79%	77%
Workers and co-operatives	21%	4%	5%	7%
Private sector	36%	12%	16%	16%
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Geographical Distribution of the Projects

	No. of projects	Investment	Output	Employment
Bar es Salim area	34%	19%	26%	24%
Urban development areas	57%	76%	70%	71%
Other towns	9%	5%	4%	5%
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Origin of financial resources:

Most resources will be raised locally in order to maintain the pattern of self-reliance established during the First Plan.

Financing of the Central Government Investments  
in Development

(million \$ U.S.)

Domestic resources	294
Transfers from recurring budget	(86)
Security sales (including provident funds, insurance, etc.)	(187)
Other local resources	(21)
External resources (including commodity credits)	224
<b>Total Central Government resources</b>	<u>518</u>

Parastatals:

In gross terms, it is expected that between 35 and 40% of the parastatal programme will be financed externally, 30% by the Central Government and 30% will be self-financed.

Criteria on project evaluation:

In order to develop decision-making in relation to the selection of industrial projects, systematic criteria will be laid down during the plan for application to all parastatal projects and for guiding the public policy outside the parastatal sector. For this purpose, the impact of the project on overall development will be evaluated under four headings:

- effect on the balance of payments;
- real net contribution to domestic products;
- budgetary effect;
- social impact.

6. Organisational and institutional changes required for the industrial plan implementation:

The overall supply of managerial staff has to be increased through the training programmes of the proposed Institute of Development Management and those of the University. To provide sufficient staff, people will have to be recruited from a far wider range than those with general management training. On-the-job training will be encouraged.

"Project initiators" will be appointed who will be responsible for the progress of the project and who will then participate in the management of the plant.

The implementation procedure for small projects will be handled through special industrial centres.

One of the most important tasks will be to check the efficiency of investment decisions and of the practical impact of development programmes.



The central implementation objective is to ensure a very high rate of growth in investments by parastatals over the plan.

To achieve a regular review and a reassessment of the Five-Year Plan, an annual implementation plan will be set up.

Planning units in all economic and social ministries will be established; some of them exist already.

Devplan will remain responsible for the co-ordination of an overall economic policy, the preparation of the annual review of parastatal investment programmes, the preparation of the annual implementation plan and the identification and elimination of implementation bottlenecks; it will co-operate with ministerial planning units where they exist and aid ministries in the creation of planning units where they do not exist.

Devplan will also be responsible for the development of a regional planning capacity and for providing assistance to the regions in the formulation of plans and annual development programmes.

A new organizational structure of the parastatal sector will be created in order to facilitate the implementation of the Second Plan. Each parastatal will specialize in one industry or a closely related group of industries and will be allocated to a parent ministry.

Each year the parastatals will present through their parent ministries a summary of the investment projects they have on hand, the cash flow they expect from their operations and their expected source of finance. Devplan, in consultation with the Treasury, will then review the programmes concerning the overall resource availability.

The regions will have to play a more important part in implementation. The following policy will ensure a better regional involvement in implementation:

- Centrally financed projects will be spread more evenly throughout the country than in the First Plan.
- Urban development will be decentralised away from Dar-es-Salaam.
- During the plan, increasing resources will be available for allocation to regional economic development projects through regional development funds.
- The agricultural targets of the plan have been broken down into district crop priorities which will be made available for guidance at the district level.
- Through a reallocation of functions, the financial situation of district councils has been put on a much sounder footing which will enable them to play a more positive development role.

7. Problem areas particular to the industrial sector:

The principal problem relates to the formulation and implementation of a long-term strategy of industrial growth, once the process of import-substitution of simple consumer goods is completed. The underlying problems are:

- The domestic growth in demand for these products is limited by the overall rate of growth of the economy.
- Many of the consumer good industries produce only a small proportion of the final product with domestic materials; they use a high proportion of imported materials and have created a domestic market for new types of imports.
- Export possibilities of these industries are limited, as other developing countries have established similar ones and industrialized countries have imposed high tariffs.
- Intermediates and capital goods used as imports by the new import-substituting consumer and construction good industries will be limited in supply as they must be imported and will therefore depend on export and/or aid possibilities.

Increasing priority should thus be given to the long-term development of basic intermediate and capital goods industries. The identification and preparation of projects to meet the more complex requirements of the next stage of industrialisation will be undertaken during the plan period.

**SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF  
COSTA RICA: 1969 - 1972 <sup>g/</sup>**

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

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<sup>g/</sup> Previsiónes del Desarrollo Económico y Social de Costa Rica y Planes del Sector Público para 1969-1972; Ministerio de la Presidencia, Oficina de Planificación, Mayo 1969, pp. 1085.

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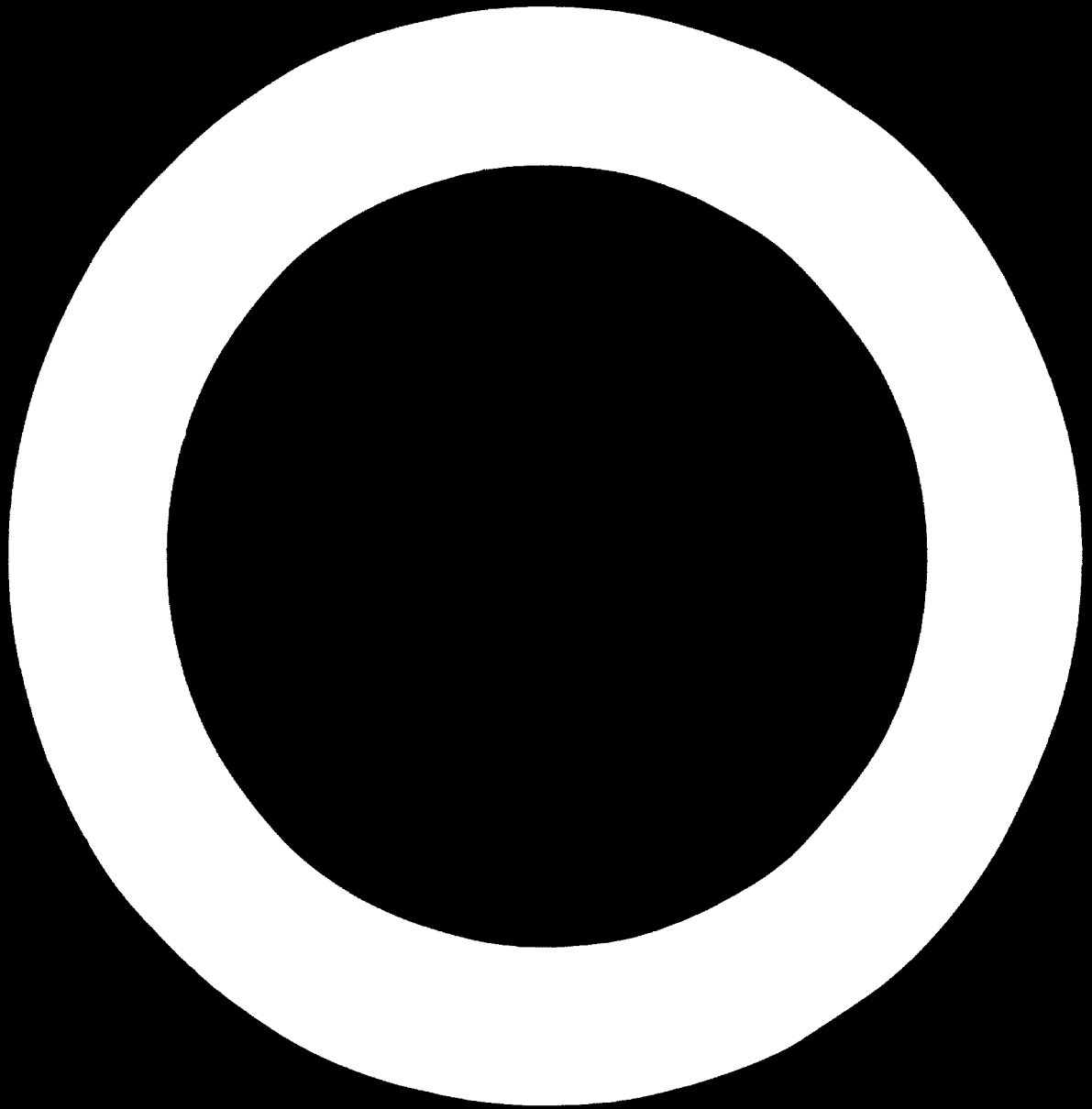
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I. GENERAL BACKGROUND INFORMATION

1. Basic statistics of Costa Rica:

<u>Area:</u>		11,760 km <sup>2</sup>
	Agricultural area	15,230 km <sup>2</sup>
	Forests and woodlands	29,250 km <sup>2</sup>

Major cities: (as per 1 January 1969)

	<u>Population</u>
San José (capital)	200,000
Alajuela	75,000
Puntarenas	61,000
Cartago	57,000
Limón	47,000
Heredia	38,000
Liberia	24,000

Other data:

	<u>Number</u>
Motor vehicles in use (in 1968)	50,564
Wireless telegraph stations	10
Telegraph offices	202
Telephone stations (covering 50,093 subscribers in 1969)	52
Broadcasting stations	35
Television stations	4

Annual electricity production: (in 1967) 480 kwh/capita

Exchange rates:

<u>Unit</u>	<u>Colones equivalent</u>
US dollar	6.62
Pound sterling	15.82
Swiss franc	1.53
French franc	1.20
German mark	1.82
Italian lira (100)	1.06

2. Population:

Between 1950 and 1968, the total population grew at an average annual rate of 3.5%.

	<u>1964</u>	<u>1968</u>
Total population (000 persons)	1,439.1	1,634.9
Active population (000 persons)	419.2	468.4

Industrial Employment Distribution

(number of persons)

	<u>1963</u>	<u>1965</u>	<u>1968</u>
Consumer goods industries	24,304	27,607	34,763
Intermediate goods industries	8,435	12,142	14,422
Capital goods industries	2,170	2,556	2,966
Total	<u>34,909</u>	<u>42,305</u>	<u>52,151</u>

Structure (%) of Industrial Employment

	<u>1963</u>	<u>1965</u>	<u>1968</u>
Consumer goods industries	69.6	65.4	66.6
Intermediate goods industries	24.2	28.6	27.7
Capital goods industries	6.2	6.0	5.7
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Education and training:

Costa Rica has a very low rate of illiteracy. The elementary instruction is compulsory and free; secondary education (since 1949) is also free. Elementary schools are provided and maintained by local schools councils while the national Government pays the teachers besides making subventions in favour of local funds. In 1968, there existed 2,363 public primary schools with 11,610 teachers and administrative staff and 330,810 enrolled pupils; there were 97 public and private secondary schools with 55,732 pupils. The university of Costa Rica, founded in San José in 1843, has 584 professors in 13 faculties and 9,265 students. A medical school was opened in 1961. The budget for 1967 provided \$26 million for the public education.



The responsible departments for education are:

- The Ministry of Public Education;
- The University of Costa Rica;
- The National Institute for Apprenticeship (INA)

The INA was founded in 1960 to train unskilled workers to semi-skilled and workers with incomplete knowledge to skilled ones by means of courses and colleges which offer the possibility of attending university afterwards. The purpose is to form specialized operatives for preparation and control functions. -

The University of Costa Rica trains professionals on different basic industrial levels. In 1963, the National Productivity Centre (CENPRO) was founded to provide courses for managers, foremen and operatives. To date, 96 programmes for 1,300 managers, foremen and operatives of 215 public and private enterprises have been realized.

The productivity per person employed grew at an annual rate of 4.3% between 1965 and 1968.

3. GDP:

	<u>1964</u>	<u>1968</u>	<u>Average annual increase</u>
Manufacturing GDP/capita (\$)	70	88	6.0%
Total GDP/capita (\$)	378	468	5.5%
Population (000)	1,440	1,634	3.1%
Manufacturing GDP (million \$ U.S.)	101	144	9.2%
Total GDP (million \$ U.S.)	544	765	8.9%
Manufacturing GDP as % of total GDP	18.6	18.8	

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\*/ INA assiste managers concerning training, organisation, etc., gives permanent assistance to managers in the form of "Instructores Formadores" and organises courses for supervisors and instructors.

GDP Structure  
(million \$ U.S.)

	1964	\$	1968	\$
Agricultural sector	136	25.4	186	24.3
Industrial sector	101	18.5	159	20.8
Public sector	46	10.3	86	11.2
Others	249	45.8	334	43.7
GDP at market prices	544	100.0	765	100.0

Within the industrial sector, a slight structural change from the traditional (food, footwear, clothing, etc.) to the intermediate industries (paper and paper products, chemicals, rubber products, etc.) could be noticed. In 1963, the traditional industries contributed 79.5% to the total industrial GDP and 71.2% in 1967.

Stimulative factors for industrial development:

- Tax exemptions granted by the law for industrial protection and development;
- CACM membership;
- Provision of higher domestic and foreign credits;
- Increase of foreign investment.

4. Macro-economic indicators:

Money Supply Index (1963=100)

1958	1963	1966	1967	1968	1969	1970
74	100	116	146	168	196	188 (March)

Average annual increase 1963-1968 = 10.7%

Prices: Average annual increase 1960-1968 = 1.7%

GDP: 1964 - 8544 million  
1968 - 8765 million  
Average annual increase 8.9%

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

	<u>1961</u>	<u>1960</u>
<b>Current account</b>		
<b>Foreign trade</b>		
Total exports	172.5	205.9
Goods	143.3	174.4
Services	29.2	31.5
Total imports	213.7	232.2
Goods	191.2	209.0
Services	22.5	23.2
<b>Balance of trade</b>	-41.2	-26.3
<b>Remittances</b>		
Receipts	4.6	4.8
Payments	22.4	22.9
Interest (foreign debt)	13.7	13.8
Public	8.8	7.0
Private	4.9	6.8
Return on investments	7.6	8.0
Others	1.1	1.1
<b>Balance of remittances</b>	-17.8	-18.1
<b>Transfers</b>		
Receipts	9.6	10.0
Payments	0.8	0.9
<b>Balance of transfers</b>	8.8	9.1
<b>Balance of current account</b>		
<b>Revenue</b>		
Credits	82.1	68.2
Public	37.3	24.8
Private	44.8	43.4
Direct investments	25.6	27.2
Decrease of reserves	-	-
<b>Gross revenue</b>	107.7	95.4
<b>Expenditures</b>		
Amortisation of credits	62.9	54.5
Public	44.7	26.0
Private	18.2	28.5
Depreciation of investments	7.5	8.8
Increase of reserves	2.1	3.1
<b>Gross expenditures</b>	72.5	66.4
<b>Others</b>	15.0	6.3
<b>Balance of capital account</b>	90.2	35.3

**The Government's Current Revenue and Expenditures**

(million \$ U.S.)

	<u>1965</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
<b>1 Current revenue</b>	165.4	231.8	252.8	277.8	294.5
1.1 Contributions	83.8	121.8	133.6	144.2	155.8
1.1.1 Direct taxes	28.9	48.7	54.5	57.9	63.2
1.1.2 Indirect taxes	54.9	73.1	79.1	86.3	92.6
1.2 Others than contributions	10.4	16.1	17.5	19.3	20.5
1.3 Operational revenue	64.5	89.0	96.0	103.7	112.3
1.4 Transfers	6.7	4.9	5.4	5.6	5.9
<b>2 Current expenditures</b>	147.3	207.5	220.7	235.2	249.2
2.1 Consumption	83.1	119.0	125.6	133.1	140.4
2.1.1 Remunerations	59.7	91.7	96.5	101.4	107.0
2.1.2 Purchases	23.4	27.3	29.1	31.7	33.4
2.2 Operational expenditures	45.0	52.9	56.4	60.3	64.4
2.2.1 Remunerations	18.4	26.3	28.0	29.7	31.6
2.2.2 Purchases	26.6	26.6	28.4	30.6	32.8
2.3 Interests	6.8	20.6	22.2	23.8	25.4
2.4 Profit transfer	0.1	0.2	0.4	0.6	0.7
2.5 Transfers	12.3	14.8	16.1	17.4	18.3

5. Industrial products and technology - main manufacturing industries:

	<u>1963</u>	<u>1967</u>	<u>1968</u>
Food	28.3%	24.6%	24.8%
Beverages	14.0%	12.0%	11.4%
Tobacco	4.6%	3.4%	3.2%
Textiles	5.1%	6.4%	6.7%
Footwear and clothing	9.6%	7.9%	7.4%
Wood	7.9%	6.9%	6.7%
Furniture	3.7%	2.9%	2.8%
Paper	1.1%	1.1%	1.1%
Printing	3.3%	3.0%	2.9%
Leather and leather products	1.5%	1.1%	1.0%
Rubber products	0.8%	1.3%	1.6%
Chemicals	7.5%	9.2%	9.2%
Petroleum products	-	2.1%	3.9%
Non-metallic minerals	3.5%	4.3%	4.1%
Basic metals	0.3%	0.8%	0.7%
Metal products	2.3%	3.6%	3.3%
Non-electrical machinery	1.4%	1.4%	1.5%
Electrical articles	0.8%	2.3%	2.3%
Transport equipment	2.8%	2.8%	2.6%
Others	1.7%	2.9%	2.8%
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The average annual growth of manufacturing GDP over the period 1963 to 1967 was 11.9% and from 1967 to 1968 - 12.1%.

Food, beverages, chemicals, textiles, footwear and clothing and wood contributed altogether 66.2% in 1966, followed by non-metallic minerals and petroleum products with 4.1% and 3.9% respectively; the remaining 24.8% include furniture, printing, mineral products, transport equipment, electrical articles, non-electrical machinery, rubber products, leather and leather products, paper products and basic metals.

Structural changes in the manufacturing GDP: only a slight decrease in the production of consumer goods and an increase in the production of semi-finished goods. Due to limitations from the technological and financial point of view, no higher increase was possible on a short-term basis.

6. Industry - related resources and sectors:

Between 1963 and 1967, there was no significant increase in the demand for electric energy. In 1967, the industrial sector consumed 131.7 million kwh. This accounted for 22.1% of the total demand, while in 1963 only 15.3% was consumed by the industrial branches. The agricultural sector had to increase its production, both of traditional produce and of new ones in order to supply industry. In particular, the production of sugar-cane, cotton, African palm-trees and sorghum increased between 1963 and 1967.

Gold output is about 93.3 kg/year.

Salt production from sea water is about 10,000 tons/year. Haematite ore was discovered on the Nicoya Peninsula in 1960 and sulphur near San Carlos in 1966.

In order to promote the mining activities in the country, a mining code was prepared which meets the most modern standards.

The following works were carried out between 1958 and 1968:

- Reconstruction and amelioration of 675 km of the principal roads;
- Construction of 616 km of other roads;
- Construction of the road San José - El Coco - San Ramón;
- Finishing and asphaltting of the Interamerican Highway;
- Construction of the road leading to Limón;
- Canalisation of the Lagunas del Atlántico;
- Initiating the construction of a new port on the Atlantic coast and expanding the port of Puntarenas;
- Expansion and improvement of the international airport, El Coco.

Data sources:

F.O.B. Value of Exports of Goods  
(000 \$ U.S.)

Year	Total	Agricultures				Others		Total	Cattle	Hog
		Coffee	Rubber	Cocoa	Others	Others	Total			
1965	111,694	66,627	28,266	2,215	5,269	29,317	4,656	3,282	21,379	29,659
1966	135,673	52,640	29,106	3,103	6,726	44,012	8,693	5,466	32,934	41,106
1967	143,298	54,841	30,928	3,146	4,472	49,911	8,390	8,587	32,934	41,106
1968 <sup>a</sup>	174,402	57,683	43,907	3,499	6,833	62,480	8,845	12,149	32,934	41,106

<sup>a/</sup> Estimated figures

Main Imports:

C.I.F. Value of Imports of Goods

(000 \$ U.S.)

	<u>1965</u>	<u>1966</u>	<u>1967</u>
Total	178,141	178,453	190,699
Industry and mining	68,012	64,882	74,967
Raw materials	52,228	50,539	47,898
Capital goods	15,784	14,343	17,269
Agriculture	13,020	10,252	10,301
Raw materials	9,170	6,473	6,545
Capital goods	3,910	3,779	3,746
Building and construction	15,849	15,154	13,940
Materials	11,551	9,667	10,011
Capital goods	4,298	5,487	3,929
Transports	18,588	19,907	20,850
Fuels and lubricants	8,147	7,883	8,200
Capital goods	10,441	12,224	14,650
Consumption	51,947	60,418	61,550
Perishable goods	34,194	40,918	41,418
Durable goods	17,753	19,500	20,134
Other capital goods	10,665	7,840	9,091

7. Overall economic development strategy and policy:

- to stimulate the economy's growth rate, as well as that of employment;
- to increase foreign exchange earnings;
- to decentralise industries from the geographical point of view;
- to increase Costa Rica's participation in the economic integration programme (CACM);
- to improve the internal organisation of industries.

8. Regional co-operation:

The Cámara de Compensación Centroamericana (Central American Compensation Chamber) transferred to Costa Rica in 1967 cheques, orders, etc. at the amount of \$26 million. (1965 - \$24 million; 1964 - \$12 million).

The industrial exports to Central American countries increased from \$1.5 million in 1962 to \$25.8 million in 1967.



These two facts give an idea of the increasing importance of Costa Rica's participation in the economic integration programs:

- In 1958, the Tratado Multilateral de Libre Comercio e Integración Económica (Multilateral Treaty on Free Trade and Economic Integration) was signed by El Salvador, Nicaragua, Guatemala, Honduras and Costa Rica.
- In 1960, the Tratado General de Integración Económica Centroamericana (General Treaty on Economic Integration) was signed by El Salvador, Honduras, Guatemala and Nicaragua. Costa Rica joined this treaty in 1962. It became effective in 1963.

Positive aspects of the economic integration for Costa Rica:

- Better utilisation of installed capacity;
- The level of industrial employment increased considerably; reaching a total of 40,000 workers in 1968;
- The manufacturing sector's contribution to total GDP increased from 17% in 1963 to 19% in 1968;
- Better export possibilities;
- Creation of an entrepreneurial spirit;
- Foreign investment is stimulated.

Negative aspects of the economic integration for Costa Rica:

- Problems concerning the fiscal structure of the country;
- Decrease in customs revenues;
- Pressure on the balance of payments;
- Agricultural problems.

**Exports and Imports to and from Central American Countries**  
(000 \$ U.S.)

	TOTAL CENTRAL AMERICA		GUATEMALA		EL SALVADOR		HONDURAS		NICARAGUA						
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports					
1963	3,945	3,817	128	446	573	-127	1,978	2,302	-324	266	145	121	1,255	797	458
1964	15,308	8,285	7,103	3,185	2,717	468	7,287	2,908	4,379	1,498	735	763	3,416	1,985	1,093
1965	18,232	14,691	3,541	4,323	5,321	-998	4,675	4,788	-113	2,965	1,415	1,550	6,269	3,167	3,102
1966	25,157	23,155	2,002	4,741	9,103	-4,362	6,092	7,653	-1,561	4,379	2,031	2,348	9,945	4,368	5,577
1967	26,909	34,221	-7,312	5,995	11,323	-5,728	6,101	12,343	-6,242	4,364	3,198	1,166	10,849	7,357	3,492
1968*	37,290	47,908	-10,618	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.

\* Estimated figures

9. Systems for planning and plan implementation:

With the foundation of the Oficina de Planificación de la Presidencia de la República (Planning Office of the Presidency of the Republic) in January 1963, the analysis of the Public Administration which was started already some years ago was extended and put on a solid basis.

At the same time, the Departamento de Productividad y Eficiencia Administrativa (Department of Productivity and Administrative Efficiency) which constitutes a part of the Planning Office was founded. This department has the following functions:

- to study systematically the working methods and the administrative organization of the entire public sector with the aim of eliminating unnecessary employees and to make the best use of the human and material sources in order to increase the productivity of the Public Administration;
- to render technical assistance to private enterprises in order to increase their productivity.

In July 1966, the Comisión de Eficiencia Administrativa (Commission on Administrative Efficiency) was founded. Its main task is to cut down public expenditures by means of a special work programme as follows:

Programmes in execution: studies in process of implementation

- General post office: partial renewal of transport equipment, installation of new letter boxes, etc.;
- Register of pledges: microfilming of documents;
- General road transport office: enacting a law for transit, modernising the equipment, etc.;
- Other studies were made as regards the Ministry of Foreign Affairs, the Ministry of Public Security, the customs, the National Press, the storage rooms of the Ministry of Transport and the storage rooms for spare parts of the Ministry of Public Security;
- Ministry of Public Education: analysis of the organisational structure, functions attributions, procedures, personnel, teaching centres and legislation.

**Programme to be executed from 1969 to 1972:**

- Improvement of the financial administration system;
- Centralisation of the auxiliary services of the executive;
- Greater efficiency of the services which are rendered by the Government to the public;
- Introduction of modern techniques in the State's supply services;
- Improvement in the integral organisation of the Ministries;
- Rationalisation of the public expenditures;
- Standardisation of the administrative procedures;
- Administrative and financial reorganisation of the municipal system;
- Co-ordination of these services concerning order and security;
- Implementation of recommendations.

**10. Problems encountered through the previous plan period:**

**Foreign trade:** Between 1963 and 1967, the deficit of the balance of payments increased annually by 10.6%. Costa Rica had to import nearly all capital goods as well as a high proportion of raw materials and consumer goods needed for industrialisation. Various projects had to be financed with foreign capital by means of credits. All these facts deteriorated both the balance of trade and the balance of payments to a great extent.

In the same period the imports of intermediate products which are used as raw materials in industry increased annually by 21%. Costa Rica's industry became dependent on foreign countries. The freight costs - one of the most important items among the imports of invisibles - increased considerably.

**Fiscal problems:** Between 1963 and 1967, the member countries of the CACM promoted the industrial development by means of national laws. This policy created a disparity of incentives among the member countries.

Nearly no selective criteria for the concession of incentives can be applied. Generally speaking, it can be said that unequal conditions were created for each country.

In 1962, the member countries of the CACM signed the Central American Contract on Fiscal Incentives for Industrial Development. It came into force in March 1969. The economies of member countries, especially the balance of payments and the fiscal situation, suffered from this delay.

There is a lack of experts in project evaluation and statistics.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1969-1972

1. General goals and objectives:

(i) Planned growth:

	1966	1969	1970	1971	1972	Average annual increase
Manufacturing GDP/capita (\$)	88	-	-	-	111	6.0%
Total GDP/capita (\$)	468	-	-	-	553	4.2%
Population (000)	1,634	-	-	-	1,875	3.6%
(million \$ U.S.)	144	-	-	-	214	10.9%
Total GDP (million \$ U.S.)	765	828	899	964	1,037	7.9%
Manufacturing % of total GDP	18.8				20.6	
Consumption (million \$ U.S.)	624	663	708	765	825	7.3%
Fixed domestic capital investment (million \$ U.S.)	155	-	-	-	221	9.3%
Exports of goods and services (million \$ U.S.)	211	229	250	278	300	9.1%
Imports of goods and services (million \$ U.S.)	242	260	280	307	328	7.8%

(ii) Other objectives:

Objectives pertaining specifically to the manufacturing sector:

- to increase the supply of manufactured goods demanded locally and in the CACM;
- to increase exports to countries other than those of the CACM;
- to intensify the exploitation of domestic raw materials;
- to streamline the internal organization of enterprises;

- to promote specialization in order that resources be efficiently used to raise the competitiveness of domestic commodities in international markets;
- to promote the geographical dispersion of industry by adopting improved location criteria;
- to improve integration agreements in order that incentives help industrial development further.

## 2. Strategy and policy:

### (1) General:

Production of exportable goods to the CACM and other regions will be furthered, particularly in the case of the manufacturing sector.

Export of industries which use domestic resources and offer immediate export possibilities, i.e. consumer and intermediate goods like canned meat and other food-stuffs, dried fruits, vegetables, coffee, papain, radio and television sets, cardboard boxes, sulphur, etc., will be promoted. By 1972, the export of bananas will be greater than the export of coffee. Export diversification will be furthered.

The CACM industrial policy must eliminate obstacles of a fiscal and monetary nature, in order to increase the competitiveness of Central American products in foreign markets.

Monetary policy will be implemented in a situation of increasing stability, promoting private investment and the growth of agricultural and industrial enterprises.

The money supply will increase according to the volume of credits to the private sector.

It is of great importance to bear in mind the limitations in policy-making due to the participation in the CACM.

A Central American policy encouraging greater efficiency of firms will be promoted.

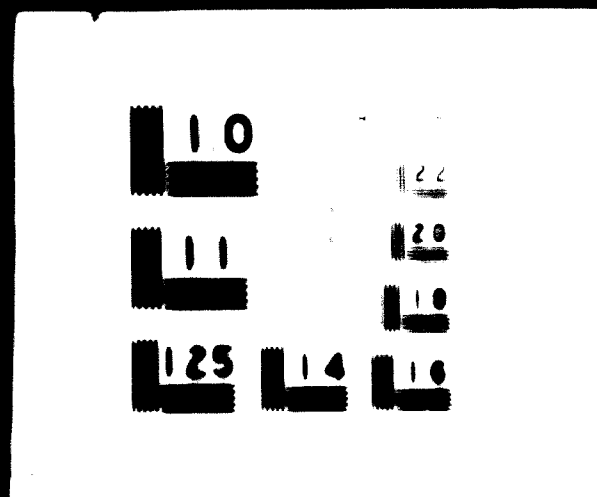


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5 OF 5

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Technical assistance will be required by both public and private sectors in project evaluation and preparation.

Import substitution, especially in the field of food-stuffs, textiles, chemicals and petroleum derivatives production, will change the composition of imports so that the relative importance of imports of consumer and intermediate goods will decrease while that of imports of capital goods will increase.

Infrastructure has to be improved.

(ii) Human Resources and Productivity:

Education:

The education programme will be expanded at all levels and new programmes will be introduced. Approximately \$192 million will be required for the expansion of existing and for the introduction of new education projects. The creation of a technological institute as well as of technical schools for agriculture and cattle-breeding is being studied.

Vocational and managerial training:

Greater attention will be paid to the technical and professional training, as well as to the improvement of the firm's internal organisation.

Productivity and capacity:

Labour productivity in industry will increase by 4.4% during the Plan period.

The productivity and capacity utilization of the manufacturing sector is largely dependent on:

- the improved efficiency of existing plants;
- the expansion of the capacity of some of the existing plants;
- the establishment of new factories.

(10) Investment and capacity utilization:

Plant domestic capital investment (Billions U.S.)	Average annual increase (1968-1972)		
	1968	1972	
Private	126	176	9.1%
Public	31	45	10.1%
Total	157	221	9.1%

Capacity utilization policy:

The utilization of the installed capacity of all plants has to be increased in order to raise the productivity of the industrial investments. The increased productivity will be partly responsible for the maintenance of a stable price level together with the increased real income for wage earners.

(11) Interconnections between growth factors:

**Industrial Employment, Inter-Industries**  
(number of persons)

	1962	1963	1968	1973	1978
Consumer goods industries	34,763	36,398	37,879	68,183	62,000
Intermediate goods industries	14,029	15,321	16,078	18,100	19,148
Capital goods industries	2,566	3,177	3,008	3,743	4,082
Total	51,358	54,896	57,965	89,996	85,230

More than 3,200 direct jobs will be created annually.

**Structure (%) of Industrial Employment**

	1962	1963	1968	1973	1978
Consumer goods industries	66.6	66.3	63.5	64.6	64.4
Intermediate goods industries	27.7	27.9	28.5	20.4	22.4
Capital goods industries	5.7	5.8	6.0	6.0	6.2
Total	100.0	100.0	100.0	100.0	100.0

b. Index prices and projections:

Projected Domestic Demand for Manufactured Products

(million \$ U.S.)

	<u>1962</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>Average annual increase</u>
Food	103.4	108.6	118.2	128.3	7.5%
Beverages	23.3	24.5	26.1	27.9	6.0%
Tobacco	8.2	8.5	8.8	9.1	4.0%
Textiles	33.8	35.2	39.2	43.0	8.5%
Shoes and clothing	21.3	22.2	25.4	29.7	11.5%
Wood	17.4	18.6	20.6	22.8	9.5%
Furniture	7.2	7.8	8.3	8.8	6.5%
Paper and paper products	21.6	24.2	27.1	29.4	11.0%
Printing and publishing	7.9	8.5	9.1	9.8	7.5%
Leather products	3.5	3.5	3.7	3.8	4.0%
Rubber products	7.4	8.2	9.5	10.4	12.0%
Chemical products	68.9	78.0	88.5	93.0	10.5%
Petroleum derivatives	13.9	14.8	16.2	17.2	7.5%
Non-metallic minerals	15.6	16.7	17.9	19.2	7.0%
Basic metals	14.9	16.2	18.1	19.3	9.0%
Metals products	18.4	19.9	22.5	24.8	10.5%
Non-electric machinery	32.0	36.6	39.7	41.7	9.0%
Electrical equipment	18.7	20.5	22.8	25.7	11.5%
Transport material	30.0	34.8	37.0	38.5	9.0%
Others	12.1	12.8	14.0	15.3	8.0%
	<u>479.5</u>	<u>520.1</u>	<u>572.7</u>	<u>617.7</u>	<u>9.0%</u>

4. Planned growth of industrial sector:

(1) Planned growth of manufacturing sector:

Value Added  
(million \$ U.S.)

	<u>1962</u>	<u>1972</u>	<u>Average annual increase</u>
Food	37.9	47.6	8.0%
Beverage	18.0	21.9	7.0%
Tobacco	4.7	5.3	4.0%
Shoes and clothing	11.2	15.1	16.0%
Wood	10.7	15.9	14.0%
Textiles	11.6	18.3	16.0%
Furniture	4.2	5.1	6.9%
Paper and paper products	2.6	4.4	20.0%
Printing and publishing	4.5	5.6	7.0%
Leather and leather products	1.3	1.7	4.0%
Rubber products	2.9	3.8	10.0%
Chemical products	14.3	23.9	17.0%
Petroleum derivatives	6.0	7.4	7.0%
Non-metallic minerals	6.3	7.7	7.0%
Basic metals	1.2	1.5	7.6%
Metal products	5.1	7.5	14.0%
Non-electric machinery	2.3	3.2	12.6%
Electrical equipment	4.1	5.6	11.6%
Transport material	4.4	6.6	15.0%
Others	4.4	5.7	9.0%
	<u>198.5</u>	<u>233.8</u>	<u>10.9%</u>

**Value of Imports**  
(million \$ U.S.)

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>Average annual increase</u>
Food	9.2	8.4	8.5	8.8	-
Beverages	1.2	1.0	1.0	1.1	-
Tobacco	0.4	0.5	0.5	0.5	7.7%
Textiles	17.2	15.6	16.5	17.5	0.7%
Shoes and clothing	3.6	3.9	4.2	5.1	12.4%
Wood	0.4	0.4	0.4	0.4	-
Furniture	0.8	0.8	0.9	0.9	4.1%
Paper and paper products	14.2	14.6	15.3	17.1	6.3%
Printing and publishing	1.5	1.7	1.8	2.0	10.0%
Leather and leather products	0.8	0.8	0.9	0.9	4.1%
Rubber products	3.6	3.7	4.7	5.4	14.5%
Chemical products	44.1	49.1	53.5	53.9	6.8%
Petroleum derivatives	2.7	3.0	3.5	3.6	10.0%
Non-metallic minerals	5.0	5.3	5.7	6.2	7.4%
Basic metals	13.7	14.9	16.7	17.8	9.1%
Metal products	11.3	12.3	12.8	14.0	7.4%
Non-electric machinery	29.0	33.2	35.9	37.6	9.1%
Electrical equipment	14.5	16.0	17.7	20.4	12.1%
Transport material	23.4	27.1	28.2	28.4	6.6%
Others	6.5	6.9	7.4	8.2	8.0%
	<u>203.1</u>	<u>219.2</u>	<u>236.1</u>	<u>249.9</u>	<u>7.2%</u>

**Estimated Value of Exports based on Foreign Demand Projections**  
(million \$ U.S.)

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>Average annual increase</u>
Food	28.5	31.7	33.5	34.6	6.7%
Drinks	0.0%	0.1	0.1	0.1	33.0%
Tobacco	0.2	0.2	0.2	0.2	-
Textiles	5.4	6.5	8.4	8.9	10.0%
Shoes and clothing	4.7	4.9	5.3	5.7	8.0%
Wood	3.5	5.3	7.2	8.2	33.0%
Furniture	1.1	1.1	1.2	1.2	6.3%
Paper and paper products	2.0	3.0	3.9	4.1	27.0%
Printing and publishing	1.4	1.4	1.5	1.7	8.0%
Leather and leather products	0.5	0.5	0.6	0.6	4.0%
Rubber products	2.0	2.5	2.5	2.6	10.0%
Chemical products	9.4	10.8	13.1	15.1	17.0%
Petroleum derivatives	-	-	-	-	-
Non-metallic minerals	0.8	0.8	0.9	0.9	7.0%
Basic metals	1.8	1.9	2.1	2.3	7.5%
Metal products	1.8	2.0	2.2	2.4	10.0%
Non-electric machinery	0.3	0.4	0.5	0.6	29.0%
Electrical equipment	2.7	3.2	3.9	4.4	17.0%
Transport material	0.0%	0.1	0.1	0.1	20.0%
Others	2.1	2.3	2.6	2.9	11.3%
	<u>68.3</u>	<u>78.7</u>	<u>89.8</u>	<u>96.6</u>	<u>12.3%</u>



(iii) Planned growth of energy supply by ICE:<sup>2/</sup>

Year	Central		Lands		Interconnect	
	MW	KW	MW	KW	MW	KW
1969	224.7	180	17.0	1,400	9.7*	2,030
1970	205.0	196	19.1	1,520	10.8*	2,270
1971	260.8	211	21.4	1,720	13.4**	2,950
1972	1,061.6	226	21.8	1,750	14.5**	3,190

<sup>2/</sup> Only Liberia and Santa Cruz.

<sup>3/</sup> Interconnection with the Central System; includes energy supply for generating plants in the following places: Bagaces, Canas, Tilarán, Liberia, Cooperativa Santa Cruz, Nicoya and Nandayure.

(iii) Planned growth of mining:

(iv) Priority of sectors:

Priority will be given to those industrial branches which offer immediate export possibilities and use domestic resources; priority will also be given to those establishments which can easily increase their installed capacity.

The following projects have been selected to be realized in the near future:

- Production of "salsa china" and extracts;
- Beer;
- Yarns and ropes;
- Fabrics;
- Clothing;
- Shoes;

<sup>4/</sup> Instituto Costarricense de Electricidad; this is an autonomous governmental company which is in charge of the development of the national electricity plans by co-ordinating the own activities with the activities of the other electricity supplying companies.

- Toilet paper;
- Laminated paper;
- Alhyd, polyester and iron;
- Pharmaceuticals;
- Steel tubes and electric copper and steel conductors.

Approximately \$9.4 million will be required for these projects.

(v) Infrastructural problems connected with industry:

5. Planned industrial projects:

Inventory of projects:

Projects to be realized include:

Food:

- canned fish and sea food;
- pasteurised and homogenised milk and its derivatives;
- condensed and evaporated milk;
- fish-meal;
- sauces and other cooking items;
- juices, concentrates, dehydration and processing of fruits and vegetables;
- glucose and maize oil;
- pastes;
- self-raising flour;
- salt refining.

Beverages and tobacco:

- beer and liquors;
- cigarettes mainly for export.

Textiles:

- plain cotton cloth;
- synthetic fibres;
- cotton fibres;
- other cloths.

Shoes and clothing:

- for men, women and children, and particularly for export.

**Wood and furniture:**

- furniture;
- wood shooks;
- other products.

**Paper and paper products:**

- paper for duplicates;
- air mail and similar paper;
- cigarette paper;
- transparent and absorbent paper;
- cardboard boxes;
- onion paper.

**Rubber products:**

**Chemical products:**

- sulphur and sulphuric acid;
- urea;
- formaldehyde;
- insecticides and pesticides;
- fertilisers;
- pharmaceuticals, etc.

**Petroleum derivatives:**

- gasoline;
- propane;
- asphalt;
- diesel.

**Non-metallic mineral products:**

- expansion of cement derivatives such as:  
  ambestos  
  fibrocement  
  prestressed products;
- new plants will be established to produce:  
  refractory tiles  
  paving tiles  
  unglazed pipes.

**Basis metals:**

The aluminium production is dependent on the Legislative Assembly's approval of a project to exploit aluminium bauxite deposits. They will only become operational in 1974.

**INDUSTRY:**

Projects will be realized for the production of:

- iron tubes
- corrugated and galvanized iron sheets
- electric motors and transformers
- electrodes.

**Planned Production and Employment of Principal Products**  
**1972**

	Number of plants	Value of production (million U.S.\$)	Employment
Food	4	6.0	157
Beverages	2	5.3	270
Tobacco	1	0.2	4
Textiles	9	7.4	451
Shoes and clothing	2	1.1	127
Wood and wood products	4	3.0	676
Paper and paper products	4	11.3	250
Leather and leather products	1	0.3	60
Chemicals	7	21.4	471
Non-metallic minerals	5	5.0	247
Basic metals	2	5.0	640
Metal products	6	5.0	213
Electrical equipment	4	7.5	97
Others	7	1.2	130
	<b>60</b>	<b>81.5</b>	<b>4,191</b>

**Investment:**

The gross fixed capital investment for the industrial sector from 1969-1972 will amount to approximately 8172 million. The annual gross investment will be approximately 203 million.

**Planned Investment in Industrial Projects 1972-1977**

	<b>Number of Projects</b>	<b>Total Investment 1972-1977 (Billion U.S.)</b>
Food	4	3.0
Beverages	2	2.0
Tobacco	1	0.3
Textiles	9	9.8
Shoes and clothing	2	0.3
Wood and wood products	4	5.7
Paper and paper products	4	7.6
Leather and leather products	1	0.3
Chemicals	7	20.7
Non-metallic minerals	5	4.8
Basic metals	2	27.7
Metal products	6	2.4
Electrical equipment	4	2.4
Others	7	0.8
	<b>60</b>	<b>89.8</b>

The total investment in these industrial projects amounts to \$10 billion for the fixed capital and to approximately \$26 billion for the working capital. 36.3% will be invested in metal working industries, 39.1% in manufacturing of intermediate products (paper, chemicals, non-metallic minerals) and 24.6% in traditional industries (food, beverages, tobacco, textiles, wood, leather, shoes and clothing, etc.).

### Criteria for project evaluation and location:

General aspects to be observed for project evaluation:

- the effects on national and other economic sectors;
- possibility of import-substitution and diversification of exports aiming at the stabilisation of the balance of payments and of foreign exchange revenues;
- influence of the industrial project on the economy as a whole;
- financial, economic and technical points of view of an industrial project;
- quantitative project aspects supplied by stabilisation;
- based on investigations of national resources, like water, minerals, etc., usually conducted by the Government, economic and technical viability studies are prepared.

One of the main objectives of urban as well as regional planning is the adequate location of industries. The idea is to effect or better the geographic decentralisation of industry. There exist two special regional plans, one for the northern and one for the Atlantic region.

Efforts were also made for the creation of industrial estates showing various advantages:

- cheap land and buildings to be installed by the entrepreneurs;
- vicinity of complementary industries saves time and costs of supplying each other;
- provision of long-term credits and a low rate of interest for the purchase of land and buildings.

The Government elaborated a plan for an industrial estate which should be situated in Alajuela, but this project was not yet realized. On private initiative, a project of an industrial estate has been executed in Heredia.

**State of Financial Resources:**

- International Development Bank;
- International Development Agency;
- Central American Bank for Economic Integration.

These institutions will supply approximately 80% of the funds (800 million) required for new projects through the 1969-1972 period.

The remaining 20% will be financed by domestic resources:

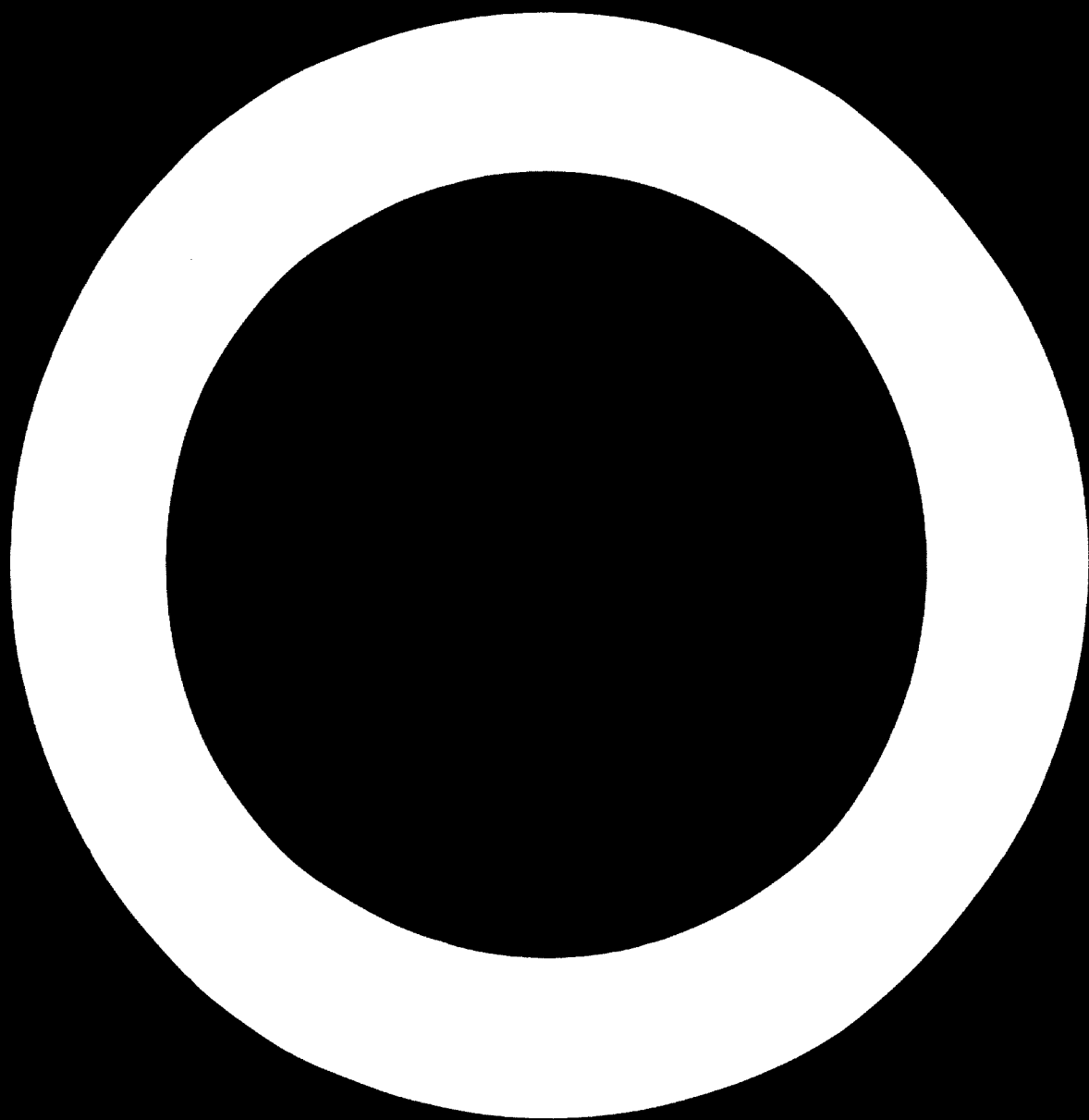
- The National Banking System and Banco Interamericano de Integración Económica (BIE) on a regional basis;
- Comisión Interamericana de Fomento, S.A. (COFISA).

The investments in industry will require:

- Domestic capital: 511 million;
- Foreign capital: 290 million.

**6. Operational and institutional changes required for the industrial sector:**

**7. Other areas pertaining to the industrial sector:**





**SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN OF  
THE HUNGARIAN PEOPLE'S REPUBLIC: 1971 - 1975**

**I. General background information**

**II. Summary of the industrial development plan**

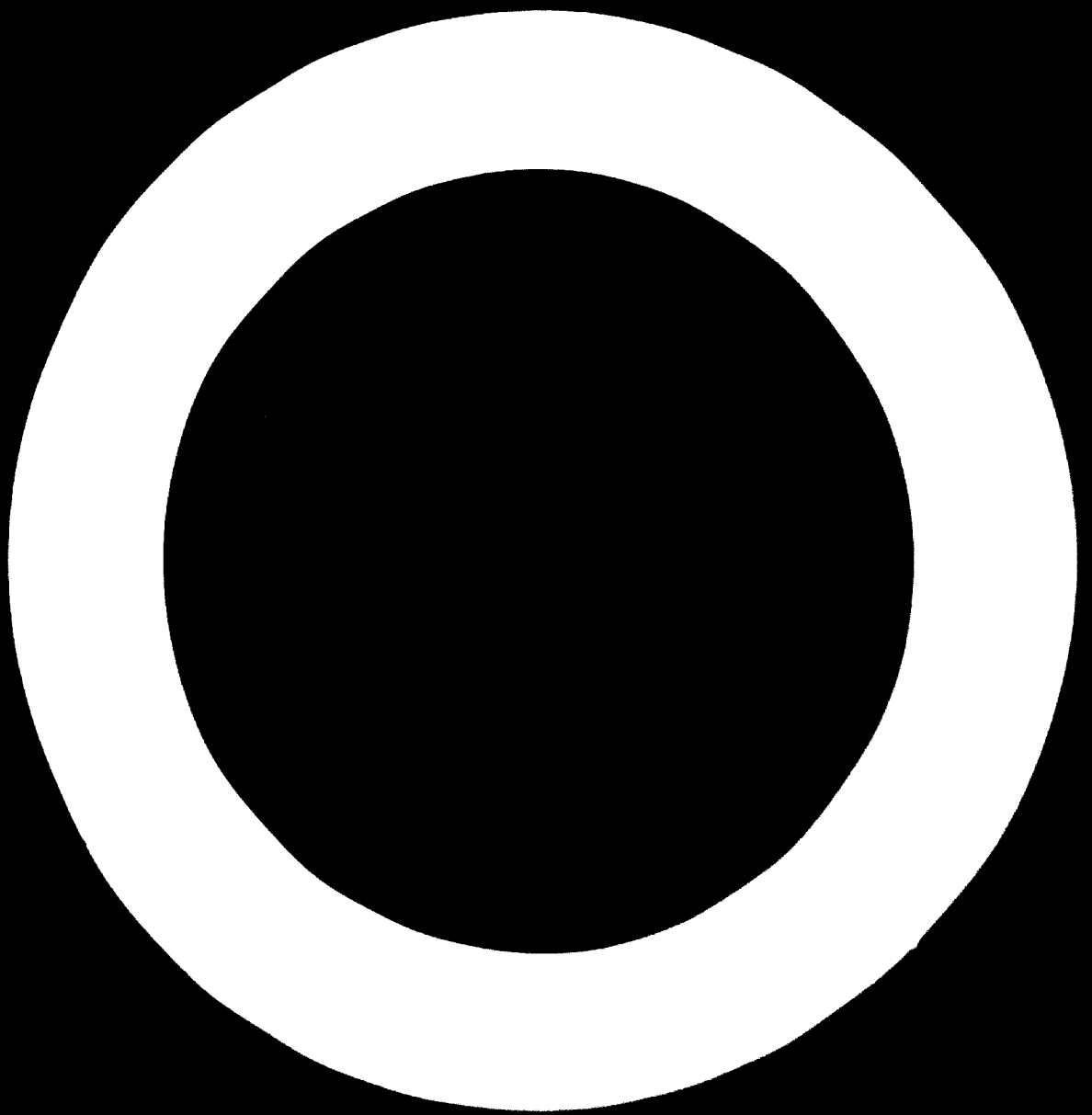
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\* / See also page 433.





1. GENERAL BACKGROUND INFORMATION

1. Basic statistics of the Hungarian People's Republic:

<u>Area:</u>	93,000 km <sup>2</sup>
<u>Other data:</u>	Calorie consumption in 1968: 3,100-3,200 per capita/per day
	Meat consumption in 1968: 54 kg per capita/per year
	Per capita income in 1970: \$800 (at factor cost)
<u>Tourist exchange rate:</u>	One US dollar = 30 Forints

2. Population:

The total population in 1970 was 10,314,000.

Employment:

There is full employment in the country, i.e. approximately 51% or 5,280,000 of the total population are active workers; 41% of the active population are female. After 1970, the activity rate will grow only to a small extent due to the slow growth of the number of women who can be drawn from their household into a socially organized framework; thus, the expansion of employment cannot exceed, with respect to male manpower, the rate determined by the natural increase.

96,2% of active earners work in the state and co-operative sectors where the means of production are in state and co-operative ownership. In the private sector, only about 3,8% of the earners are active. The state sector contributes 76% of the national income, while the private sector only 2%.

Sectoral Distribution of Workers in 1969

Industry	33.0%
Construction	6.5%
Agriculture	28.0%
Forestry and water management	32.5%

Education and training:

The capacity of education and vocational training is rather developed and has good traditions. The extent of primary education and skilled worker training may be characterized by stating that in the school year 1969-1970 1,178,000 children attended the primary school (with 8 forms), meaning 98.7% of those in the corresponding age for whom schooling is compulsory. In the same year, the number of apprentices was 224,000, i.e. 4.4% of the labour force employed. The extent of the secondary and higher education may be characterized by stating that 31% of those in secondary school age <sup>\*/</sup> (or 337,000 students) attended day schools and in higher education 4.2% of the population aged 18-25 participated (79,000 undergraduates).

Educational capacities have been expanded substantially in the last 20 years. In the next decade, development continues according to the strategic aims of the plan in the direction of raising standards and improving the quality.

3. and 4. GDP and macro-economic indicators:

The economic development of the country, particularly the growth of industry, may be said to be fast. From 1950 to 1969, the index number of the global industrial production was 484, while that of industrial employment in the same period was 210. In the 20 years

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<sup>\*/</sup> Secondary school age in Hungary covers the age groups 14-18. On completion of the secondary school, the students have to pass a so-called "maturity examination". Then they may claim admission to universities and other institutions of higher education.

from 1950 to 1970, the volume of the country's national income<sup>\*</sup> rose threefold in a way that the contribution of industry increased more than fourfold (the index number being 440) and that of construction more than threefold (index number 370), while agriculture could raise its contribution only by 16%.

From the domestic utilization of national income in 1970, 76% served the consumption and 24% the accumulation (gross investment); this ratio will continue, with slight modifications amounting to but a few points, also in the next decade. In recent years, about 18-20% of the national income has been used to increase fixed assets. According to the calculations of the plan for 1971-1975, this ratio will grow at most to 22%, assuming that the part of accumulation to be used for increasing stocks can be somewhat reduced. In the last two decades, the main aim of the investment policy was to develop the branches of material production. In the last 10 years, these branches used about 70-73% of total investment allocations. The reason for this trend of economic policy was that the conditions for the economic expansion of the country had to be most urgently created in the branches of heavy industry. In the next decade the plans follow partly a new strategy, supporting a stronger development of infrastructure and of the tertiary sector.

In the last ten years, the personally disposable real income increased in the group of manual and white-collar workers by 5.5% on annual average and with the peasantry by 7.2%. The real wages of manual and white-collar workers increased more slowly: the average annual increase per earner was not quite 3% in ten years. The gap between the real income and real wages can be explained with the very backward social relations at the start. In the next decade,

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\*/ In the methodology of socialist countries, the calculation of the national income sets out from the value of products derived from the material production and deducts from this the current material consumption and the depreciation of fixed assets. The data are calculated both at the current prices of individual years and at unchanged prices as well. (in UN terminology: Material Product System).

the strategy of the plan aims at reducing the gap by increasing the growth rate of real wages by 0.5-1.0 points.

In 20 years, from 1950 to 1970, the consumer price index calculated for manual and white-collar workers rose to 205 in respect to foodstuffs, to 142 for clothing, to 132 for other industrial articles, to 127 for heat and lighting expenses, to 132 for services, indicating a total of 171. By European standards, the inflationary process was extremely moderate. It shows, however, some similarities in the structure.

At present, about 78-80% of the population's income originate from gainful employment and 22% from social benefits. In the case of manual and white-collar workers, the social benefits are higher than in the case of the peasantry where they amount to only 18 to 19% of the total income. The social insurance covers 97% of the total population.

According to household budget surveys in 1968, in manual and white-collar worker families 43.8% of the total expenditure was spent on food, beverages and tobacco, 14.4% on clothing, 11.9% on rent, maintenance of flats, fuel, light and housing construction, 9% on household equipment, 2.4% on hygiene, 6.2% on transport and communications, 6.3% on education and entertainment and 6% for other purposes.

Hungary has an open economy. The value of exports attains 40% of the national income. 61% of the total imports consist of sources of energy, materials, intermediary products and components. The open character of the economy increases and this trend is deliberately supported by the economic policy. About 65 to 70% of the foreign trade is transacted on the markets of the socialist (mainly CMEA) countries where the balances of both trade and international payments are in equilibrium. About 30 to 35% of the trade is carried out with non-socialist countries. In 1969,



Hungary exported commodities to the developed western countries at a value of \$524 million and imported from there goods totalling \$426 million. The balance of trade with these countries fluctuates; in the average of the last three years it has been positive. The trade with the developing countries is of a substantially smaller volume, e.g. in 1968, the combined sum of exports and imports was \$220 million. Of the exports to socialist countries in 1969, about 60% were machinery, transport equipment, other investment goods and industrial consumer goods. In exports to non-socialist countries these goods amounted to 23%, the major part consisting of materials, intermediary products, as well as agricultural and food products.

5. Industrial products and technology - main manufacturing industries:

At present, industry contributes 41% of the national income (NMP) and 38% of GDP. 33% of the total labour force are working in industry. About 80% of all exports are of industrial origin.

The growth in the global industrial production was accompanied by considerable changes in the pattern of production.

**Changes in the Pattern of Production**

<u>Group of Industry</u>	<u>Production<sup>*</sup></u>		<u>Employment</u>		<u>Productive Fund</u>
	<u>1950</u>	<u>1959</u>	<u>1950</u>	<u>1959</u>	<u>1959</u>
Mining	26.5%	13.6%	11.1%	8.5%	12.0%
Electric energy	5.1%	5.8%	2.8%	2.0%	14.1%
Metallurgy	11.2%	8.8%	7.0%	5.0%	12.5%
Total of metalworking industries	17.1%	22.5%	21.2%	11.0%	12.0%
Machine building	4.0%	7.2%	6.2%	5.2%	5.7%
Production of vehicles	6.6%	7.1%	11.2%	7.2%	6.0%
Production of electrical machinery	1.2%	2.2%	2.3%	1.3%	2.0%
Telecommunication and various- technical industry	1.2%	6.6%	2.3%	4.7%	2.0%
Precision engineering	0.6%	2.2%	1.0%	2.2%	1.0%
Production of metal mass products	2.4%	3.2%	4.0%	4.0%	2.3%
Building material industry	5.8%	4.5%	6.2%	4.7%	5.0%
Chemical industry	4.2%	9.1%	4.6%	6.2%	12.1%
<b>Total heavy industry</b>	<b>69.7%</b>	<b>70.3%</b>	<b>62.3%</b>	<b>48.2%</b>	<b>75.7%</b>
Heavy industry excluding mining	(43.2%)	(46.7%)	(51.2%)	(40.7%)	(62.7%)
Total of light industry	20.2%	20.2%	22.2%	11.2%	11.1%
Food processing	1.2%	2.0%	2.2%	1.2%	1.2%
Paper industry	0.2%	0.2%	1.0%	0.2%	1.2%
Printing	1.1%	1.1%	2.2%	1.2%	0.8%
Textile industry	12.5%	6.2%	14.2%	8.6%	6.6%
Leather, fur and shoe industry	2.6%	2.2%	2.8%	1.2%	1.1%
Textile garment industry	1.5%	2.2%	2.0%	4.1%	0.6%
Other industries	0.2%	3.0%	0.2%	1.7%	1.1%
Handicraft and homecraft	-	2.0%	-	5.2%	0.1%
<b>Heavy and light industries combined</b>	<b>90.4%</b>	<b>91.2%</b>	<b>87.5%</b>	<b>60.0%</b>	<b>86.8%</b>
Food industry	9.6%	8.8%	12.5%	10.0%	11.2%
<b>Grand total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

\*/ Data calculated with the aid of product series and other methods.

\*\*/ Calculated by stock on December 31, 1960, inclusive of the machine repair shops in agriculture.

The gross steel production now amounts to 3.2 million tons. There are 9 blast and 25 open-hearth furnaces. Ore and coke-over coke are mostly imported. The per capita crude steel consumption is, at present, approximately 300 kg, expected to rise to 360 kg in the next five to six years. The difference between supply and demand is bridged over by foreign trade. The major part of such imports still consist of "quality" steel. For some years, the trend of development points towards expanding the choice of more valuable qualities (alloyed steel, fine plates, sections, etc.). The extensive expansion of blast furnace capacities has been pushed to the background, the main purpose of intensification is to reduce specific coke consumption and raise the productivity of the furnaces. This trend will prevail also in the period of the fourth five-year plan from 1971-1975.

The performance level of the chemical industry, in spite of its being the fastest growing industry, is not yet satisfactory and due to a lack of capacity cannot satisfy the needs for products which could be efficiently produced in Hungary from the technological point of view. A traditional and highly developed export branch is that of pharmaceuticals. The large-scale development of crude oil processing has been only an achievement of the last decade, as is the case of the greater part of fertilizers (the annual production is, at present, about 500,000 tons). The domestic production does not yet cover all needs and presumably for the next six to seven years, the country will still import fertilizers. The utilization per hectare of the cultivated area is 112 kg. A considerable part of the rubber processing and the plastic industry are almost completely new branches (the plastic production amounts to 41,000 tons, imports to 51,000 tons). The per capita plastic utilization is now 13,6 kg. A new trend in the chemical industry is the importance given to products based on petrochemicals (ethylene capacities based on

petrol, then the creation with international co-operation of production capacities for synthetic fibres and other ethylene-based products). An important objective of the development of the chemical industry is to secure up to date synthetic fibres for the traditionally highly developed and exporting garment industry. At present, still 70% of all fibres used are natural ones and synthetic ones make up only 8 to 10%.

The domestic production (5,100 tons) is smaller than the imports (about 9,000 tons). The programme of developing the synthetic fibre production aims at substantially reducing the imports.

Hungary is poor in some kind of wood (e.g. pine). Two third of the sawn wood requirements are imported. As regards deciduous trees, the stock of the country is satisfactory (1.5 million hectares), because the plantations in the last two decades made up for the war losses and even increased the stock. In consideration of the properties of the kinds available, the trend is towards establishing the production of modern chipboard and fibreboard products, as well as building capacities for the production of cellulose to be derived from deciduous trees.

The domestic paper production is also smaller than the amount required. The production (250,000 tons) yields 25 kg per capita, the consumption is 40 kg. In view of the raw material problems a considerable part of the supply must be met through imports even in the future.

The large-scale construction activity suddenly raised the demand for cement and now the domestic production of 2.7 million tons is complemented by 1 to 1.5 million tons imported. Productive capacities are relatively small also in respect to common glass sheet and thus the 9.1 million square metres produced must be complemented by about 5 million square metres of imported sheets. The fourth five-year plan provides for considerable development in both industries and aims at almost completely meeting the domestic demand by 1976-1977.

The policy aimed at developing the industrial structure based on the long-term strategy of the economic policy and continues to rely on such a strategy (at present, calculations are being prepared up to 1970).

It must be observed that, according to the general opinion of econo-planners, the structure of the industry can be characterized with the aid of the proportions among major branches only from a definite aspect. The branch aspect does not exhaust all considerations of the industrial policy relating to the structure, since it is not sufficiently correct in its conclusions. The structure of the Hungarian industry corresponds in the whole to that of countries on a similar level of development, if this is measured by the groups of industry indicated in the table on page 46. Its development follows the pattern of the more developed countries.

#### 6. Investments:

In regards investments, the majority of the requirements are met by domestic resources. The growth rate of investments is relatively high, growing quicker than the national income.

#### Distribution of Investments by Branches of Economy in 1956-1969

Industry	37.6%
Construction	2.1%
Agriculture, Forestry and water management	15.5%
Transport and communications	12.9%
Trade	3.6%
Public utilities	29.3%
Total	100.0%

Pattern of investments

	<u>1950</u>	<u>1965</u>	<u>1969</u>
Construction	64.6%	51.1%	56.8%
Machinery and technological equipment	27.4%	38.4%	33.9%
Other items	8.0%	10.5%	9.3%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The overwhelming part of materials, intermediary products and fixtures, are supplied for the construction by the domestic industry (about one third by the building materials industry, about 35% by other industries and the rest by the auxiliary plants of the construction trade, co-operatives, small-scale artisans and the population.

Of the machinery and technological equipment invested, about 60% is of a domestic and 40% of an imported origin. The metalworking industries are among the most important branches of the country employing 30% of the industrial labour force. About one fifth of the country's imports are destined, either directly or indirectly, for the metalworking branches. In some categories of the electrical machinery, telecommunication and vacuumtechnical products, vehicles and machinery for food processing, the domestic production satisfies the demand raised by investments. As regards other products (machinery for construction, building materials industry, agriculture and the light and chemical industries), imports must be resorted to. The pattern of production of the metalworking industries is in a process of transformation, because both domestic and foreign demand are growing for automation elements, control equipment and electronic instruments in a dynamic way.

7. Industry - related resources and sectors:

Sources of energy:

In the development of the major industrial branches industrial policies had to rely up to now on the particular materials available in the country. The energy branches present a special picture. The share of the domestic utilization in the basic sources of energy declines and imports are growing. In 1960, 81% of the total use was covered by the domestic production, in 1970 only 76%. Accordingly, the share of imports increased with the exception of natural gas where the production grew from 300 million cubic metres in 1960 to 3,200 million in nine years. The coal mining was characterized in the same period by a stagnation at a level of 26.5 million tons annually. Since the crude oil extraction hardly increased (from 1.2 million tons to 1.8 million tons), imports more than doubled in these nine years from 1.5 million tons to 3.9 million tons. The supply of oil is secured from the Soviet Union.

As regards the pattern of consumption of the basic energy sources, coal represents 49% of the total, crude oil 30% and natural gas 13%.

The per capita electric energy consumption is now 1,700 kwh, the volume of production 14.5 billion kwh (20 years ago it was only 3 billion kwh). Electric energy is produced in thermal power plants with a specific input of 3,000 calories per kwh. The reduction of the heat requirements is a planned condition of technological progress. In the electric energy imports amount to 18% through the CNEA-grid. Further development continues with the construction of hydrocarbon-based and atomic power plants.

Minerals and mining:

The country is poor as regards minerals for industrial use, as well as in raw materials. Only its bauxite deposits are worth mentioning, with an annual 1.9 million tons, Hungary occupies the 6th-8th place on the world list.

Annual Production  
(000 tons)

Bauxite	1,900
Alumina	440
Aluminium blocks	65
Semi-finished goods	67

Further capacities are being developed with the exception of aluminium furnaces. To reduce electric energy requirements, a Hungarian-Soviet co-operation agreement was concluded for the processing of alumina; this enables the country to save annually about 1 billion kwh of high-cost electric energy and the savings in the investment costs of power plant and aluminium furnaces reduce also the general capital intensity of the economic development.

The main direction of development in this industry is to process the aluminium blocks to the greatest possible extent into semi-finished and finished goods. At present, the per capita aluminium used in Hungary is almost 10 kg and is expected to grow by about 50% by 1975.

Main imports:

The role of imports is considerable in supply. Imports of (non-edible) raw materials amount to 17% of the total imports (exclusive of fuels), as is illustrated in the following table:



Materials from which imports amount to

<u>100%</u>	<u>more than two thirds</u>	<u>half to two thirds</u>
<u>of the total domestic utilization</u>		
Zinc	Iron ore	Coke-ven coke
Tin	Lead	PVC powder
Pyrite	Sulphur	Paper pulp
Ammonia soda	Soft sawn wood	Raw cow-hides
Natural rubber	Pit-props	Cleaned wool
Crude phosphate	Caustic soda	Tinned plates
Newspprint	Coke for foundries	etc.
Cotton	Polyethylene	
etc.	Polystyrene	
	Crude oil	
	Pig-iron for foundries	
	etc.	

Main exports: (see Regional co-operation, including policies regarding foreign trade)

Agriculture and livestock:

The domestic raw material resources of the Hungarian industry can be said to be good only in respect to some industries based on agricultural raw materials. The relations between materials of agricultural origin and the processing industries are not equally strong. The textile, leather and wood processing industries can rely on domestic materials only to the extent of about 50%. Only 3% of the total agricultural output is processed by the light industry. The traditional food industry, however, has established such close relations with agriculture that an integrated "food economy" bloc is emerging, in its total output, the agriculture and food industries are participating to about equal extent. The role of this bloc in the national economy can be illustrated with a table compiled with the aid of input-output analyses (based on 1967 and 1968 data at current prices):

<u>Percentual share from</u>	<u>Agriculture</u>	<u>Food industry</u>	<u>Industry excluding food</u>	<u>Other branches</u>
Global social products	16	14	50	20
National income (NPS)	19	9	49	23
Material consumption	13	16	51	20
Productive fixed assets	18	5	42	35
Operating assets	20	7	30	43
Non-productive consumption by the population and public bodies	17	27	30	26
Total exports	6	18	70	6
Total productive imports	8	8	74	10
Total of gainfully employed	29	4	30	37

It should be observed that 92% of the consumption of food and beverages are covered by domestic production (citrus fruits and coffee are fully imported, partly also tobacco).

In the food industry the major branches are related to animal husbandry. The branches processing meat, poultry, eggs and milk contribute to about 40% of the output value of food industry. The animal husbandry is of great importance for the Hungarian economy not only from the point of view of processing but also because there are substantial direct exports of live animals.

The Share of Major Articles in Food Exports

	<u>1938</u>	<u>1960</u>	<u>1966</u>	<u>1968</u>
Animals and animal products	43%	47%	47%	47%
Fruit and vegetables (fresh and canned)	5%	17%	29%	28%
Cereals	29%	1%	-	1%
Other plant products (sugar, etc.)	23%	35%	24%	24%
Total	100%	100%	100%	100%

Thus, the development of livestock has always belonged to the most important questions of the Hungarian economy:

	<u>In the average of the years 1934-1938</u>	<u>1950-1954</u>	<u>1961-1965</u>	<u>At the end of 1962</u>
	(000)			
Cattle	1,788	2,000	1,934	1,976
of which cows	914	883	804	744
Pigs	3,516	5,100	6,592	5,700
Sheep	1,400	1,354	2,397	2,251
Poultry (grown-up stock)	17,617	18,971	25,690	34,253
Horses	819	692	342	236

From the size of livestock and its role in the economy derives another great task for the agriculture: to produce fodder. Yields are still lagging behind the West European averages but, apart from cattle raising and the production of rough fodder, they are increasing as a result of development in the agricultural technology. The yields in the rough fodder production have essentially remained on the pre-war level and this is the reason for the stagnation of the cattle livestock too.

1. Overall economic development strategy and policy:

2. Regional co-operation (including policies regarding foreign trade):

In 1969, the per capita foreign trade turnover was \$390. The narrow basis of the domestic raw material supply, the small domestic market and partly the technological development problems characteristic for the moderately developed countries justify the widespread and dynamically expanding international economic relations. This requirement also affects, of course, industrial policies, since decisions must be taken on the products which should be developed domestically and also on the development policies best suited to meet export requirements in respect to quality, efficiency, etc. These decisions, however, are affected not only by industrial economics but also by other considerations: expected attainment of economic results in other branches, international political problems, etc. Hungary also has considerable foreign exchange receipts from agriculture, but the tourism is negligible and several revenues in the balance of payments, apart from commodity trade, are almost completely lacking (transport, profits on capital, etc.). Thus, the resources available for imports depend fundamentally on the export performance of industry and agriculture. Since imports are important, the national economic plans consider orientations which promote the continuous expansion of the export markets. The discrimination applied for long years by the United States and the European non-socialist countries could be counterbalanced only by a close socialist co-operation. This is the reason for the essential change in the last decades in the pattern of foreign trade.

Distribution of Imports and Exports by Countries

Country	Imports <sup>a</sup>			Exports <sup>a</sup>		
	1938	1950	1960	1938	1950	1960
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
of which:						
Austria	11.5%	5.7%	3.7%	15.3%	7.1%	2.7%
Belgium and Luxembourg	1.1%	3.6%	0.3%	0.3%	1.4%	0.7%
Bulgaria	0.8%	2.0%	1.6%	1.0%	1.9%	1.5%
Czechoslovakia	6.7%	10.3%	7.3%	4.1%	10.6%	9.5%
German Democratic Republic		2.6%	10.0%		7.4%	10.5%
Federal Republic of Germany		2.9%	4.4%		7.4%	5.5%
Romania	0.4%	7.0%	2.0%	4.0%	7.7%	2.0%
Soviet Union	0.1%	24.5%	37.0%	0.1%	28.9%	34.8%
United Kingdom	6.3%	3.5%	3.4%	5.1%	0.1%	2.0%
France	1.5%	1.5%	2.4%	1.9%	1.1%	1.4%
Greece	1.2%	-	0.4%	0.3%	-	0.4%
Netherlands	3.7%	2.7%	1.4%	1.6%	2.1%	1.2%
Yugoslavia	4.5%	-	2.4%	3.0%	-	2.1%
Poland	1.4%	2.7%	6.1%	1.0%	1.2%	5.6%
Italy	6.3%	2.9%	3.9%	8.5%	3.4%	4.7%
Switzerland	2.5%	3.9%	1.8%	3.2%	3.7%	2.9%
Sweden	0.7%	0.5%	0.8%	1.0%	0.3%	0.2%
India	0.9%	-	1.0%	0.8%	0.1%	1.1%
United States	5.3%	1.9%	0.1%	2.4%	0.7%	0.4%

<sup>a/</sup> Only the countries more important from the viewpoint of trade figure in the table. In 1960, Hungary imported from 77 and exported to 138 countries.

The changes in the orientation of Hungary's trade regarding partner countries had the advantage of solving a dilemma of developing the manufacturing industries, namely how can the substantial imports of raw materials, energy and intermediary products be counterbalanced by exporting processed goods according to the endowments of the country? Conforming to this trend, such commodity pattern of exports has come about where 60% of the exports to CMEA markets consist of investment goods and industrial consumer goods. (In the exports to non-socialist countries, these goods amount to only 23 to 25% of the total).

In the last ten years also, trade in industrial consumer goods has substantially grown.

Production and Exports of Some Consumer Goods

	<u>1969 in comparison to 1960</u>	
	<u>Production volume</u>	<u>Exports at current foreign exchange prices</u>
Pharmaceutical products	5.0-fold	5.0-fold
Consumer articles of the metalworking industries	2.0-fold	2.0-fold
Furniture	2.0-fold	5.0-fold
Garments	1.5-fold	2.5-fold
Household chemicals and cosmetics	1.4-fold	13.0-fold

Pattern of Trade in Industrial Consumer Goods in 1969  
Imports

(million \$ U.S.)

	<u>Socialist countries</u>	<u>Developed capitalist countries</u>	<u>Developing countries</u>	<u>Total</u>	<u>Distribution in %</u>
Total of industrial consumer goods	<u>118.5</u>	<u>26.6</u>	<u>1.8</u>	<u>146.9</u>	<u>100.0</u>
of which:					
Clothing articles	16.0	7.2	0.6	23.8	16.2
Vehicles	33.8	5.3	-	39.1	26.6
Radio, television and household equipment	13.9	1.0	-	14.9	10.1
Furniture	11.8	-	-	11.8	8.1

Pattern of Trade in Industrial Consumer Goods in 1961

Exports

(million \$ U.S.)

	<u>Socialist countries</u>	<u>Developed capitalist countries</u>	<u>Developing countries</u>	<u>Total</u>	<u>Distribution 1961</u>
<b>Total of industrial consumer goods</b>	<u>351.0</u>	<u>89.9</u>	<u>29.3</u>	<u>470.2</u>	<u>100.0</u>
of which:					
Clothing articles	160.3	49.2	19.7	229.2	48.7
Vehicles	15.7	1.6	0.4	17.7	3.7
Radio, television and household equipment	20.0	2.3	1.2	23.5	5.0
Furniture	11.9	4.1	0.1	16.1	3.4
Finished medicaments	75.4	0.1	0.9	76.4	16.3

It is the medium-term national economic plan that serves as a basis for regulating foreign trade, but the long-term orientation of foreign trade policies is influenced by social planning and international political prognosis.

It is an important principle of the reform of economic control and management that the administrative restrictions must be gradually eliminated. The right of licensing exports and imports, however, is retained by the Ministry of Foreign Trade. (Its main forms are: limit permits and individual permits, the latter mainly for commodities which are not "materials"). About 90% of the turnover is transacted by specialised foreign trading companies.

The system of customs duties is a regulator of foreign trade having an international effect. These duties may be refunded or exemptions from them granted for reasons of either price or foreign trade policy. In the case of such exemptions or refunding the domestic price of the imported product cannot rise above the foreign price in forint terms with the aid of the "uniform foreign exchange

"multiples". The Hungarian Economic Treaty and its official explanation were implemented by a Government decree. The tariff is based on the 1934's Roman list as modified by about 40 countries. The tariff items are, without exception, of variable rates, i.e. the duty to be paid is established as a percentage of the frontier parity value (c.i.f. and f.o.b. Hungarian frontier) of the commodity imported. The rates were established in consideration of savings to be achieved in foreign exchange, protection of production, taking into account domestic prices and the prevailing price form.

Three rates belong to each item in the tariff, i.e. the tariff has three columns. The third contains the maximum, the autonomous rates; these are applied to goods from countries which have not yet granted tariff reductions to Hungary (e.g. SA, Portugal, the Republic of South Africa, etc.).

The second column contains the rates to be applied to countries which grant Hungary the most favoured nation clause; (this amounts usually to half the rate in the third column). This means that the tariff reduction granted to any country is extended to every country which, either by agreement or by its own determination, does the same in respect to Hungary; such countries are the European countries with the exception of Portugal, further Canada, Australia and several developing countries.

The first column is the so-called preferential one. According to the provisions of GATT, two-sided preferences (preferential rates) may be granted to the developing countries. This means that rates even lower than the one contained in the second column may be applied and, by an international agreement, this does not violate the principle of the most favoured nation clause.

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\* This means that in the case of the dollar a coefficient of 60 and, in the case of the rouble, one of 40 is applied.



17. Systems for planning and plan implementation:

In Hungary, comprehensive annual plans, comprehensive five-year plans and recently a long-term (10-year) plan are worked out. In this framework, for certain fields of branches also longer programmes are drawn up (energy, residential construction, some problems of transportation policy, etc.). The body directing national economic planning is the National Planning Office. The controlling agencies of state administration participate in the planning with a detailed elaboration of special problems corresponding to their field of competence. The National Planning Office is responsible for the comprehensive control of the work going on and for its co-ordination on the macro-economic level. After a decision by the parliament, the medium-term plans (and the Government programmes belonging to it) are enacted as an orientation for the economic policy. The annual plans are approved by the Government. The long-term plans are just being drawn up.

As regards their substance, the economic plans are guidelines for action, for the competent ministers. But the plan also has an obligatory ("addressed") part, meaning the programmes which the plan intends to be realized by using central resources (major investment programmes), as well as the international contracts, prepared in co-operation with the economic units interested but concluded finally on the Government level. Of course, the provisions relating to the implementation of the state budget are also compulsory. The compulsory prescriptions instruct ministers or individual enterprises directly to behave in a definite way or to carry out certain development.

The objectives defined in the national economic plan do not appear, however, to the enterprises in general in a form of instruction, but their implementation is based by the state on indirect means of economic control: interest relations, economic incentives, state subsidies, financial and labour regulations.

These influence the enterprises to observe planned behaviour not in a direct manner but by affecting their environment. However, under certain circumstances, the enterprises determine the contents of their plans autonomously (apart from the exceptional instructions mentioned).

The practical tools of indirect control in Hungary are the following:

- using the state resources for investment to implement economic policy. These investment decisions, taken centrally, amount to about 50-52% of the total investments. (This includes the financing of major industrial programmes, residential construction, transportation policy projects, public utilities, social, health and educational investments.) The other investment resources belong to the scope of decisions of enterprises;
- influencing by central price policies. There are prescriptions for the forms of prices and for checking the prices. A few fundamental products have officially fixed prices which also influence enterprises;
- regulation of an enterprise's income. This includes the system of taxation, the rules relating to the formation of enterprise funds, subsidies, preferences, etc.;
- regulation of foreign trade, including the foreign exchange coefficients to be applied in enterprise accounting, the refunds in foreign trade, customs policies, export-import licensing, etc.;
- credit policies, regulating the volume of credits outstanding, the terms of credit grant and the preferred and not preferred fields;
- the state budget which, by regulating revenues and expenditures, provides a framework for the financial resources of the state and their use;
- wage and income policies, measures affecting labour management; establishing the framework for secondary and higher education; the direction and extent of central measures of the wage policy are formulated in common with the trade unions;

- the various price and legal prescriptions affecting the trade in products. The building up of Government reserves, the determination of temporary restrictions on trade.

The background of the enterprise's activity is constituted by the own financial funds of the enterprises, consisting of 40% of amortisation allowances and the part of profits remaining in the enterprises after taxation. These are usually complemented by bank credits and perhaps also by state allocations. Enterprises have to finance their development concepts and the raising of wages from these own funds.

11. State intervention through the financial system

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of In the national level, there may be also complementary Government measures to raise wages at the expense of state funds.

II. SUMMARY OF THE INDUSTRIAL DEVELOPMENT PLAN 1971-1975

1. General goals and objectives:

(i) Planned growth:

	1970	1975
National income per capita (\$ U.S.)	400	1,000-1,100
Industry share per capita (\$ U.S.) (excluding food industry)		500

The fundamental source of growth in the national income (or GNP) will continue to be industry. Converted to GNP, the level of the industrial production may attain 870-900 per capita in five to six years <sup>2/</sup>.

The index number of the industrial growth in terms of GNP will be about 140 in 1975 as against 1970.

Of the industrial products available <sup>20/</sup> in 1975, 80% will be of domestic origin and 20% will be imported. Of the total utilisations:

- 40% will cover the productive consumption;
- 10% the consumption by the population;
- 6% public consumption;
- 7% investments;
- 2% to increase stocks; and
- 14% will be exported.

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<sup>1/</sup> The GNP estimate for 1970 made jointly with the statistical expert, A. Gumpel.

<sup>2/</sup> In terms of the global production value, at constant prices.

Major Indicators of the Fourth Five-year Plan

	Index number 1971 base year 1970	Annual compound rate of growth
Origin of national income (NWP) at 1968 prices of which:	132	5.6
Industry	134	6.8
Construction	142	7.2
Agriculture	116	3.1
Utilisation of national income	130	5.4
Consumption of which:	130	5.4
Consumption by population	130	5.4
Other non-productive consumption	134	6.0
Accumulation of which:	131	5.6
Increase of fixed assets	133	5.9
Change in stocks	121	3.9
Global social product of industry at 1968 prices of which:	132	5.7
Mining	107	1.3
Electric energy	145	7.7
Metallurgy	128	4.4
Machinery industries	133	5.9
Building material industries	125	2.2
Chemical industry	153	9.9
Light industries	134	6.0
Food industry	122	4.1
Construction at 1968 prices	142	7.4
Agricultural production at 1968 prices of which:	119	3.4
Plant cultivation	116	3.0
Animal husbandry	122	4.1
Agricultural production (five-year averages of 1966-1970, 1971-1975) of which:	115	2.9
Plant cultivation	114	2.7
Animal husbandry	117	3.2
Real per capita income	127	4.9
Real wages per worker	119	3.4
Material consumption by the population at 1968 prices of which:	129	5.3
Foodstuffs	116	3.0
Clothing	136	6.3
Industrial articles	147	7.9
Productive services	133	5.8

Major Indicators of the Fourth Five-Year Plan (continued)

	Index number 1975 <u>base year 1970</u>	Annual compound rate of <u>growth</u>
Retail trade at 1968 prices of which	140	7.0
Foodstuffs	135	6.2
Catering	130	5.4
Clothing	137	6.5
Industrial articles	151	8.6
Investment of the socialist sector at 1968 prices	132	5.7
Employment of which	104	0.7
Industry	108	1.5
Construction	115	2.8
Agriculture	90	-2.2
Production per man/year of which	126	4.7
Industry	122	4.1
Construction	125	4.6
Agriculture	134	6.0
National income per person employed of which	128	5.1
Industry	122	4.9
Construction	124	4.4
Agriculture	130	5.4
<u>Foreign Trade</u>		
Rouble accounts: exports	143	7.4
Rouble accounts: imports	150	8.5
Dollar accounts: exports	135	6.2
Dollar accounts: imports	129	5.2

(11) Other objectives:

2. Strategy and policy:

(1) General:

The structural objectives of industrial policy intend essentially to continue the direction followed in the last 4 to 10 years and reckon with deviations only of smaller importance. The reason is that according to evaluations made, the development trends of recent years have proved to be correct.

The following structural changes are relatively clear in the plans:

- the transformation of the balance of energy of the country in favour of hydrocarbons;
- the development on an efficient scale of chemical processing capacities based on the domestic refining of crude oil and on the extraction of natural gas;
- quick development of bauxite and alumina production and of aluminium block processing capacities;
- a growing participation of industry on the consumer goods market since the level of the per capita national income and the accompanying purchasing power indicate that in 5 to 6 years the outlines of a "consumer" society are to emerge in Hungary. Accordingly, the structure of the market will somewhat change and the weight of some industries in the consumption by the population will grow (construction, metalworking industries, furniture industry, some branches of the textile industry, as well as the chemical industry).

Owing to the "open" character of the economy, the plan reckons with an expansion of industrial exports. Since the participation of industrial articles in Hungarian exports is already high, a considerable increase in their share is not justified. The index number for the growth of industrial exports is 44%.

The plan does not reckon with any serious change in the pattern of exports by aggregate branches, nor does it provide for considerable changes in relation between exports to countries with accounts kept in roubles and in dollars; it aims at a stabilization of the ratio of 65-70: 25-30.

Since the planning of foreign trade is the least exact, owing to several factors of uncertainty, it must not be excluded that some countries will play a part different from the one envisaged in the plan. Depending on possibilities, it would be favourable for Hungary to increase her participation in the markets of developing countries with deliveries of machinery against imports of raw materials, semi-finished goods and partly consumer goods. The telecommunication, precision engineering, vehicle production and machine tool production capacities of the country are particularly suited for such a role, but the country is also well prepared to design and deliver certain kinds of complete plant equipment.

Owing to the small size of the country's economy, an ever growing part of the industrial production must take place through an increase of foreign trade; further, domestic production cannot be carried on in the whole range of industrial products required; in fact, as long as the country does not develop into an advanced industrial stage, its imports of industrial products will remain greater than its exports. Owing to this situation, the foreign trade aspect of the Hungarian industrial development policy is equally characterized by import-substitution and by export promotion. The conception must not be based on the principle of either-or. Alternatives relate to the size and to working out concrete development objectives in either import-substitution or export promotion. Besides, the orientation of foreign trade by countries is also important. If we wanted to stress the trends of development, then, in comparison to the present situation, the import-substitution character is



stronger in the development of the chemical, the building material and to a smaller extent, in the paper and pulp industries, while the export orientation is stronger in the development of the metalworking, textile, leather and garment industries. Since, however, it is a common feature of every Hungarian industry that they are incapable to develop their spectrum of products in a self-sufficient manner, almost every branch is characterised by conversion through foreign trade, i.e. export-import turnover. If the characteristic features of foreign trade in respect to industrial products and those of the major branches are approached with the aid of an input-output analysis, the proportions of the individual groups of products in trade will be indicated by the following figures: -<sup>2/</sup>

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<sup>2/</sup> According to the Hungarian classification of industries, excluding the food industry, e.g. pulp and paper figure in the light industry, aluminium industry and oil processing in the chemical industry. For lack of data the analysis could not be performed according to the SITC classification.

Share in Foreign Trade, Calculated on the Basis of the  
Input-output Analysis

Imports

	<u>Trade accounted in</u>			
	<u>1970</u>		<u>1975</u>	
	<u>roubles</u>	<u>dollars</u>	<u>roubles</u>	<u>dollars</u>
Total imports	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
of which:				
Industrial	93.0%	74.4%	94.0%	76.0%
Total industrial imports	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
of which:				
Mining products	12.7%	1.2%	12.5%	1.4%
Electric energy	2.8%	-	2.8%	-
Metallurgical products	12.6%	15.6%	13.7%	11.4%
Engineering products	43.0%	26.8%	43.0%	30.2%
Building materials	2.6%	4.8%	2.4%	1.5%
Chemical products	13.5%	20.4%	14.2%	33.5%
Light industrial products	12.8%	20.2%	11.4%	21.2%

Share in Foreign Trade, Calculated on the Basis of the  
Input-output Analysis

Exports

	<u>Trade accounted in</u>			
	<u>1970</u>		<u>1975</u>	
	<u>roubles</u>	<u>dollars</u>	<u>roubles</u>	<u>dollars</u>
Total exports	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
of which:				
Industrial	80.3%	62.0%	82.5%	63.0%
Total industrial exports	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
of which:				
Mining products	2.2%	0.6%	1.7%	0.3%
Electric energy	-	-	-	-
Metallurgical products	5.6%	30.3%	6.3%	22.4%
Engineering products	61.0%	25.4%	60.0%	30.0%
Building materials	1.0%	1.9%	0.8%	1.7%
Chemical products	11.7%	14.4%	12.1%	19.5%
Light industrial products	18.5%	27.4%	19.1%	26.1%

Incentives used by economic policy and other tools:

The regulating tools of the state affect the enterprises in Hungary favourably. Though autonomous, the enterprises are in contact with the central planning agencies: they use the national economic plan for their information, know of the Government's development ideas, they have participated in the conclusion of international agreements, etc. Should some enterprises still behave in a way contrary to the objectives of the industrial policy, e.g. not respect their contracts, raise prices in an unjustified manner, carry on irresponsible financial policies, etc., the Government may interfere with enterprise management and, if necessary, relieve the executives of their duties.

Apart from the grave cases mentioned, the enterprise's behaviour can be influenced, of course, also in an indirect manner by taxation policy, various forms of subsidies and other promoting or restrictive measures.

According to Hungarian experience, the discussions between the state and the enterprises are not important or rather, from the point of view of economic policy, these are not of major concern.

Major difficulties are not caused by caring for the protection of legal and other interests of the population. This is solved in part organisationally, e.g. various quality control institutes, Bureau of Standards, etc. and special control agencies, e.g. the People's Central Control Committee and in part through proper legal measures. The latter constitutes a rather strict and traditional system.

The planning and use of resources concentrated in the hands of the state, related to preferences serving partly direct Government decisions, constitute such elements of economic policy that are more difficult to survey and can be used with great efficiency.

As regards the system of preferences, decisions are taken, relying on the preparatory work of the planning agencies, by the Government or its Economic Committee. These decisions appear in the form of directives with several years' validity. The Government deals with individual cases only if they are of major importance, e.g. if they seriously affect the development of certain big enterprises or influence the population with their bearing on prices or wages. In other matters, decisions are taken by financial bodies (Ministry of Finance, the banks) or by operative expert committees consisting of representatives of the ministries: the latter exercise their activity within the framework of the directives issued.

The types of decisions requiring Government action when applying preferences to the development activity:

- investment subsidies; they may relate to concrete individual cases and to guidelines, e.g. regional development;
- credit preferences; these are designed to attain a definite system of objectives in the framework of which the decisions are taken already by an operative process and are not referred to the Government;
- wage preferences;
- tax reductions and exemptions.

Another set of enterprise preferences is aimed at counterbalancing the benefits affecting the population (mainly of the price type) and the consequences of which are borne by the Government (the budget which is drawn up accordingly). The retail price of meat is lower than total productive inputs so that the meat industry needs to be subsidised. The situation is similar in the production of bricks and tiles. Certain services are also subsidised, e.g. urban transport, in order that prices need not be raised.

Preferences and other immediate individual decisions stimulating the economy or the raising of living standards require an expansive monetary policy. In this respect, however,

an anti-inflationary behaviour is prevailing. The monetary policy and other economic policy controls not only the inflation due to internal causes but also restrict external effects (the inflation pouring in through exports and imports). It should be obvious, however, that the extent of the latter will in future be influenced by the inflation rate in the developed European countries and in the world as a whole. In the fourth five-year plan period, the economic policy is predominantly anti-inflationary.

(ii) Manpower and productivity:

The planned growth of industry (excluding food) will be accompanied by an employment growth rate of about 7.5% per year between 1971 and 1975 so that the industrial employment will rise to about 1,700,000 by 1975 (in comparison to 1,520,000 in 1970). This rather small rise is a novel feature in the history of the five-year plans. It has a double reason: first, the demographical situation and the over-employment in industry slow down the migration of the population into industry; secondly, the level of technological standards attained and the qualifications acquired have created the conditions for a quicker growth in the productivity.

(iii) Investment and capacity utilization:

Between 1971 and 1975, about 500 billion forints will be invested in the national economy (at current prices, excluding private investments by the population). In dollar terms, this amounts to about \$17 billion <sup>2/</sup>. About 42%, i.e. \$7 billion, will be invested in industry. Of the 500 billion forints, 52% will be structures and 36% machinery. About 44-46% of investments in machinery will originate from imports (53% from the rouble area and 47% from the dollar area).

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<sup>2/</sup> at an exchange rate of 30 forints = \$1.--

Calculated at comparative prices, the total investment over the five years will be about 10-15% higher than in the preceding five years. Within this figure, industrial investment is to grow by about 10-15%. The relative slowing down may be explained by the fact that the plan deliberately increases the growth rate of some infrastructural investments (particularly residential construction, public utilities, the building of roads, water and sewage plants, etc.). This is, at the same time, the most important structural change in the planning of investments as compared with previous plans.

In industrial investment activity growing at a slower rate than total investments and slower than industrial production (or GNP) assumes that the incremental capital/output ratio will be more favourable than in the preceding 5-10 years. The planners relied in this assumption because of the expected effect of the following two factors:

- the pattern of investment will shift towards the less capital-intensive branches;
- there will be greater possibilities for applying more intensive methods of development.

Investments in the Socialist Sector

Branch	1961-65	
	Three Decades 1961-65	Fourth Decade 1961-65
Industry	40.0%	39.0%
Construction	2.0%	2.0%
Agriculture and Forestry	15.0%	13.0%
Water management	4.0%	4.0%
Transport and communication	13.0%	12.0%
Totals	74.0%	70.0%
Productive branches	74.0%	70.0%
Non-productive branches	20.0%	19.0%
Reserve	-	1.0%
Total	100.0%	100.0%

The role of the state in the allocation of investment  
investment decisions

This is one of the most important questions of the economic and industrial policy. The possibility of a direct decision by the state extends to about 50-60% of all investments (including now the investments by the population). Primarily, the state asserts this possibility in three ways:

- by taking so-called "individual investment" decisions; these are major investment projects prepared by careful centrally initiated investigations; they are submitted for decision by the competent ministers, in agreement with the National Planning Office; their aggregate volume amounts to about 20-21% of the total investments; The decision is taken in the first instance by the Economic Committee and then, after approval by the Government, they are fitted into the national economic plan with their major parameters (within the resources used in this way the industry represents about 16-17%);
- by taking decisions on the so-called "investments grouped according to targets"; these are lump sums amounting in their aggregate to about 21-22% of the total investments; the decision procedure is as with the first group; they relate, however, not to individual projects but to certain complex tasks as the housing programme, the railway block and the railway network, certain water management tasks, education, health service, etc.; the decision determines budgetary allocations to be used for these purposes;
- A smaller part of the total investment funds (about 8%) is given to the ministries for their disposal by denoting the direction of their utilisation. These financial limits are fixed in the plan under the title of "other state investment". These sums are used, as a rule, for subsidising investments which are important from some point of view but in a field where own resources are scarce. To this group belongs also the special investment support granted by the National Board for Technological Development in the interest of technological progress; in real value, it amounts to about \$20 million over five years. The investment funds serving the regional development may be classified in this group; these funds are handled by the country councils in a decentralised manner to support the

enterprises participating in the industrialization of the country side according to a plan drawn up for this purpose.

In an indirect manner, the state also influences investment decisions taken by the enterprises, i.e. through the credits to be granted by the state banks (the National Bank, the Investment Bank, the Foreign Trade Bank). The behaviour of these banks is regulated by "directives of credit policy" worked out and approved as a supplement to the annual plans. (In addition, there exist, of course, also many other kinds of effects unrelated to the investment activity.)

The problems of allocating resources are, of course, wider in scope than the sphere of investments. This is due to the fact that the state takes upon itself much wider tasks than in non-socialist countries in the fields of social policy, education, subsidising the population's consumption, etc. Therefore, the role of the budget is also greater in the allocation of resources so that large revenues must be centralized. This is secured by the state mainly by taxing away income from the enterprises (as regards the economically active population, an income tax is applied only in the high income brackets but even the sum of these is negligible). There are taxes (levies, charges) on the factors of production (fixed assets, the wage bill) and also interest has to be paid on the state resources lent out as credit.

The present system of taxing production factors and profits is frequently criticised from the practical side but also some questions of principle are still under discussion to reduce their inherent contradictions to a minimum. One of the contradictions is that the social cost of labour (above wages) is greater than what is collected by the budget. In other words, as reflected by the taxes on wages, labour for enterprises still seems to be "cheaper" than its real cost. In principle, the method of taxing assets engaged by the



enterprise may be challenged according to which the basis for settling out the "change in assets acquired" is the net value of fixed assets. The rules regulating the use of remaining profits by the enterprise after taxes seem to be too rigid. By all probability, these are questions to be solved still during the period of the fourth five-year plan.

iv) International relations between growth factors:

3. 1970 trends and projections:

4. Planned growth of industry, e. g. 1971-75:

(1) Planned growth of manufacturing industry:

An outstanding programme of industrial development is planned for the chemical industries. The per capita plastic consumption in Hungary hardly attains two thirds of the value in the EEC countries and the use of synthetic fibres is lagging behind in respect to the quality composition. Also, the fertiliser consumption is on a level characteristic for moderately developed countries. As regards the major quantitative and qualitative parameters, Hungary is characterized by a lag of 7-20 years behind the developed industrial countries.

According to the estimates of the expert committee dealing with the markets of the chemical industry, between 1971-1975 the demand for chemical products may be expected to rise at least by 50-55% (including exports) and the per capita domestic consumption of chemical products should also grow by at least 50%. The development plan of the chemical industry has been drawn up in a way that in these five years about 65-70% of the total investment in the chemical industry will be concentrated in four branches:

- petrochemicals where olefin capacities will be expanded, thus the products will be processed to polymers and organic basic materials; the capacities of certain aromatic derivatives will also be increased;

Portuguese production, together with the  
no good production of sulphur and  
nitrogen.

- preparative, chemical and other, among the  
current and low amount of phosphate fertilizers,  
plant protective agents, insecticides and  
herbicides, as well as detergents,  
advancement of the production of synthetic  
fibres, where the treatment of fibres and high  
tensile preparation are the most important  
ones, and other fibres.

From the programmes listed, the first and the fourth are to  
be implemented only within the framework of a broader international

WPA co-operation since the contradiction between the small  
size of the country's domestic market and the optimum scale of  
capacities must be eliminated in any other way.

Mineral and the manufacturing industries are already  
the traditional industries of the country. Metallurgy is  
still characterized today by backward technology and some  
bottlenecks. The average size of blast furnaces is 100 cubic  
metres, the process is not yet employed in the steel production,  
the open-hearth furnaces are of a capacity of only 30-120 tons,  
etc. At the same time, it is a realistic contradiction that  
the demand of the home market is smaller than could be supplied  
with optimum scale capacities. To solve the problems, a long-  
term (15-year) plan has been worked out. Its main conclusion  
was the rejection of a tactic solution and the necessity of  
close co-operation with the WPA's interest. As regards the  
content and methods of intervention, several variants are waiting  
to be discussed at meetings at the international level.  
According to the experts, the decisions to be taken will determine  
the development programmes for about 20-30 years. Hungary  
intends to carry out serious development in rolling mills  
regarding the equipment suited to process secondary and tertiary  
products. In addition, quality requirements are put into the  
foreground in the processing stages and to this end, modernizations

will be carried out. The intention is not expected to take full effect in the fourth five-year plan period. Only about 1% of the steel to be produced will originate from imports. The demand for steel may be estimated to rise to 10 million tons by 1977 and for rolled steel to 6.5 million tons. The domestic and foreign demand for rolled goods justify the fact that the share of the sheet production should reach almost 50% within the total of rolled goods. The demand grows rapidly for tubes, reinforcement steel, other profiles and in particular in the plan for various kinds of fine steel. In the next five years the global rate of industrial production will grow at an average annual rate of 4%.

The development programme of the MACHINE-BUILDING INDUSTRY sets out quite a rather different situation. There are traditional export industries in Hungary and according to the plan, it would be advantageous if this character could be reinforced. At present, about 10% of the value produced is exported; this is expected to rise to about 20%. At the same time, the present 12% share of imported machinery in the total investment in the country is also bound to grow and reach at least 15% in five years. In spite of existing, relatively heavy, expenditures, the engineering has been unable to not fully use these possibilities, and activities do not attain even half of that in the developed West European countries, technological progress is slower than desirable mainly owing to concentrated efforts to rely on domestic research and the participation in the markets of advanced industrial countries is significantly smaller than would be warranted by the scale of production. The share of engineering products is also small on the consumer market: hardly 1% of its output is sold to the population.

It follows from the above that the development policy of the Hungarian metalworking industries does not intend to apply extensive methods but wants to improve the performance mainly of existing capacities. The tools to be used are technological progress and modernization of the structure. As a result of planned investments, the per capita stock of the mechanical

equipment will grow by about 30% and the scrapping rate of the machinery and the equipment will reach about an annual 5%. Approximately 30-35% of investments in this branch will serve the development of a more favourable pattern of products. The production of vehicles, precision engineering and the telecommunication industry will grow quicker than the industry group in general. In the plan period the Government aims at supporting the development conditions of the technological progress and the development of the product pattern with proper licence policies, international contracts and a wider scope of autonomy granted to enterprises.

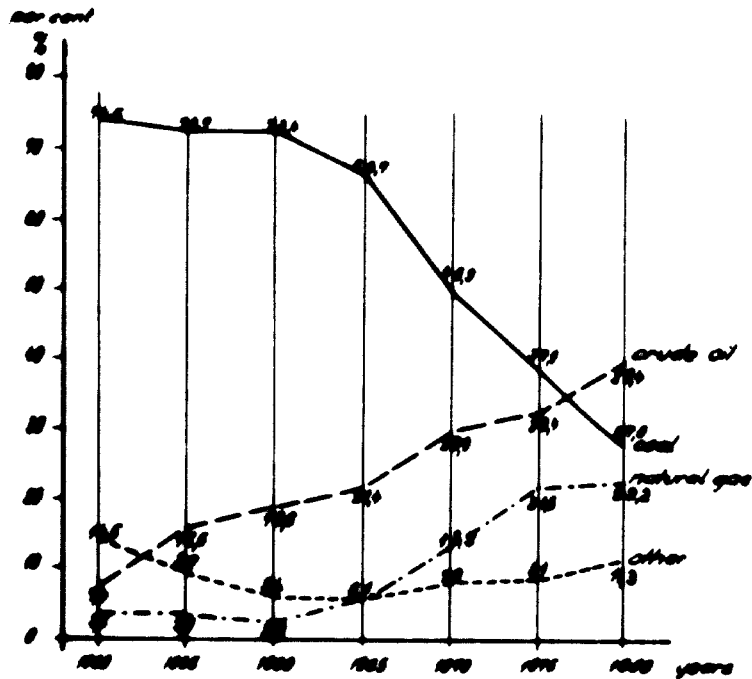
The textile, textile garment, the leather garment and the furriers industries satisfy the overwhelming part of the total demand by the population and are also among the significant export branches (the role of imports from these goods is negligible and serves mainly the expansion of the range of choice). Exports are significant to both socialist and non-socialist countries. Their role will not diminish in the next five years; in fact, exports will grow dynamically for some groups of products, e.g. ready-made garments. The performance of these industries will improve between 1971-1975 by about 35-40%, about at the same rate as the global industrial production. In most of these branches, skills and tastes are traditionally developed but the technological progress has only occurred in recent years. In addition, the various basic materials (fibres, plastics, wood products, textile fabrics) are not sufficiently up to date. Therefore, in the majority of branches, the development requires reconstruction, the creation of new capacities and, in respect to knitwear, also the building of major new capacities. As regards the equipment in the majority of branches, this must be imported from western countries; the development policy, therefore, aims at increasing export returns.

The food processing industry is a traditional export branch in Hungary and, in addition, it almost fully satisfies the demand for food of the population. (Exceptions are the products that cannot be produced in the country: citrus fruits, coffee, cocoa, soybeans, etc.) The conditions are particularly favourable for the development of meat processing, wine production, milling, vegetable and fruit canning. With the exception of the milling industry, these branches are also being developed to increase exports. Between 1971-1975, the total food processing industry will increase its production by about 25%. In consideration of the elasticity of export possibilities, the growth may be even greater if an increased demand is felt for processed food.

(11) Planned growth of energy:

The transformation of the balance of energy is an important condition to increase the economic efficiency. The programme worked out for this purpose covers the period up to 1980 and the structural changes intended may be illustrated in the following graph:

*Changes in the pattern of sources of energy in Hungary.*



(iii) Planned growth of mining:

Beyond the sources of energy, mining of minerals will be developed in Hungary only to increase the bauxite extraction. In respect to other minerals the natural deposits are so scarce that the country has no major development possibilities.

(iv) PRIORITY of mining:

(v) Infrastructural problems connected with industry:

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ANNEX: PLANNING TECHNIQUES

Application of mathematical modelling methods in the Hungarian macro-economic planning:

Up to date mathematical models in planning have been applied in Hungary for about 15 years. In harmony with the development level of the country, considerable structural changes have been put on the order of the day so that attention has turned mainly to the application of input-output models and programming belonging to the family of linear economic models.

In the first half of the sixties the input-output model (analysis) stood in the forefront: the drawing up of input-output tables containing planned figures has become an organic part of planning and now occupies a central place in the plan co-ordination. In the second half of the next decade emphasis shifted to the application of programming models, mainly as a result of the work of Mr. János Kornai. In this process, a particularly important step was the practical realisation of the so-called two-level planning (two-level national economic programming) coupled with the third five-year plan of the country for 1966-1970. (See Bibliography on page 42) J. Kornai: "The programming model of the national economy....." and G. Németh: "The experience of two-level planning in Hungary..... In the course of research a model was worked out to programme the economy on two levels, meaning the sector level and that of the national economy. The purpose of research was expressly a methodological experiment. However, it greatly contributed to the fact that a wide circle of experts (planners, economists, engineers, etc.) have become acquainted in the course of this exercise with the methods of programming.

At present, the application of programming in actual planning work has come to the fore. The practical application is characterized by the following general features:

- a combined application of aggregate and disaggregated programming models in planning;



- mathematical programming is used in a way that it becomes a part of planning; it is built into the planning procedure;
- the mathematical models suited for medium-term planning are gradually complemented with methods also suited for long-term planning.

1. The aggregate and the detailed disaggregated programming model:

The aggregate (23 sector) linear programming model of the Hungarian national economic plan is based on an input-output table of similar size. The variables of the model are the following:

- production with existing capacities;
- production with reconstructed capacities;
- production with newly established capacities;
- imports accounted in roubles;
- imports accounted in dollars;
- exports accounted in roubles;
- exports accounted in dollars.

The types of constraints applied in the model are:

- product balances;
- (financial) investment limits;
- limits on machinery to be imported, separately for rouble and dollar;
- limits on medium-term dollar credits;
- manpower limits;
- natural limits;
- capacity constraints;
- export constraints;
- import constraints;
- balances of foreign exchange in roubles and dollars.

The alternative objective functions of the model each express an important aim of the economic policy. Owing to the degree of aggregation mentioned and to the structure of the model, it serves mainly for an analysis of major structural changes in the first stage of drawing up the medium-term national economic plan when the main task is to formulate the main directions and concepts of the plan.

The possibilities inherent in this type of model were already proved in the experimental programme calculations coupled with the drawing up of the third five-year plan for 1966-1970. The first major success of model calculations is related to the first stage of drawing up the fourth five-year plan for 1971 to 1975 when several alternative plan variants were worked out which, from some point of view of the economic policy, deviated from the guidelines followed in the course of planning (see Bibliography on page 423 Za. Hjalak: "A programme-variánsok szerepe a IV....."); these clarified for policy makers the possible consequences of their decisions.

Aggregate programming, however, conceals several equilibrium problems which are to be found in the details of economic processes. Therefore, in addition to aggregate programming calculations analyses carried out with a larger model are also necessary. These calculations fit into the second stage of drawing up the medium-term plan when the plan is finally worked out and co-ordinated.

Methodologically, this requirement is met by a disaggregated programming model built upon the experiences with the 1966-1970 two-level programming model tested which calculates the production, investment, foreign trade and financial interrelations of 200 products, 63 industrial branches and 13 co-ordination branches. (See Bibliography on page 423 Morva and Béger: "Principal Features of the Mathematical Model.....").

This is a full-scope model both as regards its dimensions and functionally, covering every branch of the economy and every essential part in the economic process: production, distribution and consumption.

The model also solves the methodological problem of coupling the value calculations with those performed in physical units of measurement. The physical interrelations expressed in the product balances are linked to the value accounts. The value relations among the branches are expressed in the model by fitting in an input-output bloc comprising 13 co-ordination sectors.

It is a further important feature of the model that it adapts itself to the requirements of the prevailing system of economic control and management (the Hungarian reform of the mechanism). The model does not expressly serve for analyses of the elements of the system of control and management. Yet, due to its accounting for the major financial and regulating interrelations, it does not simply determine the optimum allocation of resources representing the structural conditions of the economy (investment resources, manpower, natural constraints); rather, it comprises also certain elements of the "economic behaviour"-type models, since the large-scale model examines the optimum allocation of resources and the conditions of implementation in a combined manner.

As regards the concrete structure of the model, it contains, in conformity with the general features listed, several new types of variables and conditions in comparison to the aggregate model. Such are the financing variables which represent e.g. the means necessary for investment and current production, further the variables for income regulation, representing the incomes of the population, the various components of enterprise profits and the different enterprise and state funds in the model. The model comprises 1,400 variables and 1,700 constraints.

Practical calculations with the disaggregated model were carried out in the second phase of working out the fourth five-year plan for 1971-1975, in order to co-ordinate the plan in detail and to refine concepts after these had been formulated. In the course of the calculations, the following objective functions were used:

- maximisation of additional consumption by the population;
- maximisation of the balance of trade surplus;
- maximisation of the profits in a branch;
- maximisation of the budgetary surplus.

Instead of theoretical discussions on how to reconcile the aggregate ends with the disaggregated ones, the problem was solved by using both models with different prices assigned to each. A collection and critical content of the calculation results was aimed at. This pragmatic treatment of the problem proved to be useful.

The results arrived at with the aid of the series of calculations performed with the two models may be summed up in brief general terms as follows:

- The reserves for economic growth to be disclosed by changes in the pattern of production and foreign trade are still considerable in the on now.
- The exploitation of resources, as well as the principles and requirements of the new economic regulating system do not contradict each other.
- As regards the methodological experiences with the models, the most important is that the models create the technical conditions for the calculation and evaluation of plan variants and that they stimulate planners to continue in the economic analysis.

## 2. Models as a tool of national economic planning

Introducing an iterative process the traditional planning and the mathematical programming procedures reviewed has been aimed at improving planning work in a way that programming should be organically fitted into the planning process. This is achieved if:

- the major methodological (quantification) principles of traditional planning and mathematical programming agree with each other;
- the information sources of traditional planning and mathematical programming are the same;
- the planners participate in the interpretation and utilization of calculative results;
- the two processes take place simultaneously of the major business activities.

By the present stage it is characteristic that the first and third criteria can be relatively easily met, while those under the second and fourth only partly. This causes certain difficulties in organization of work, e.g.:

- As regards the second condition, the data collected by the external experts, as well as by those of the Planning Office should reflect the planners' ideas formulated in the given phase of the plan co-ordination. The bringing about of necessary harmony raises problems in connection with data originating from external experts (those working in the functional and branch organs and in the enterprises) with respect to exactness and interpretation.
- As regards the fourth condition, simultaneous traditional planning and mathematical programming raises difficulties since the circumstances of applying the models (arranging the data into a model, the securing of computer facilities) are always such that a small lag emerges between the phases of the two kinds of work. This lag makes it difficult to evaluate together the results of the traditionally compiled plan and of the mathematical programme; this reduces the possible effect of the mathematical programme on decisions to be taken in the next phase of planning.

According to practical experience, the simultaneous application of programming is also made difficult by the fact that the data compiled in an intermediary phase of planning in the traditional manner are mostly not consistent: owing to the emerging contradictions, the practical calculations cannot be carried out immediately. Making the data collected consistent takes time and this must necessarily precede the solution of the proper optimization problem. Experience up to now suggests that the stage where the consistency of the data is ensured is unavoidable. As an example we could mention the calculations performed with the disaggregated programming model with its blocks for branches: 5-25 series of calculations and corrections were needed to obtain economically sensible results that could be evaluated.

The time needed for programming is to a considerable degree dependent on the computer and technical conditions; thus, to improve the efficiency of modelling, it is indispensable to improve these conditions. The circumstance that in 1971 a high-performance electronic center will be installed in the National Planning Office will hopefully result in reducing the time requirements of modelling to such an extent that the latter can be brought into harmony with the corresponding stages of planning.

4. Directions for improving the methods applied:

With the growing role of long-term planning, the research dealing with mathematical models (methods) gains in importance which is relevant for the long-term planning exercise now going on for the period 1971-1975. (See Bibliography on page 423 W. Arminstovici: "Practical Application of Dynamic Input-Output.....").

One group of these models (methods) helps planners by disclosing the interrelations and factors of economic growth (one and two-sector growth models, production functions, factor analyses, etc.). Another group are the multi-sector linear economic models aimed at working out concrete long-term plan variants, at analysing and at selecting them. Among them we may find a dynamic, multi-stage variant of the aggregate programming model which is worth of having attention not only from the methodological viewpoint but also from that of the practical application. (See Bibliography on page 423 Zs. Ujlaki: "Five-Year Optimisation Planning Models for Hungary ....").

Since by disclosing new interrelations these models (methods) direct attention to the dynamic approach in the evaluation and planning of the long-term process of economic growth, they induce similar trends in medium-term modelling too where up to now the dominating practice was to draw up a programme for the last year of the plan period.

Another new emerging trend of inquiry in the planning methodology is the interdisciplinary approach to model building which partly eliminates the conceptual and methodological deficiencies of the national economic plan and planning. It thus provides a possibility for a better solution of the intricately interrelated planning problems. This interdisciplinary approach, on the other hand, puts the mathematical models method applied into a the rational and framework of national economic planning. The related research is under way.

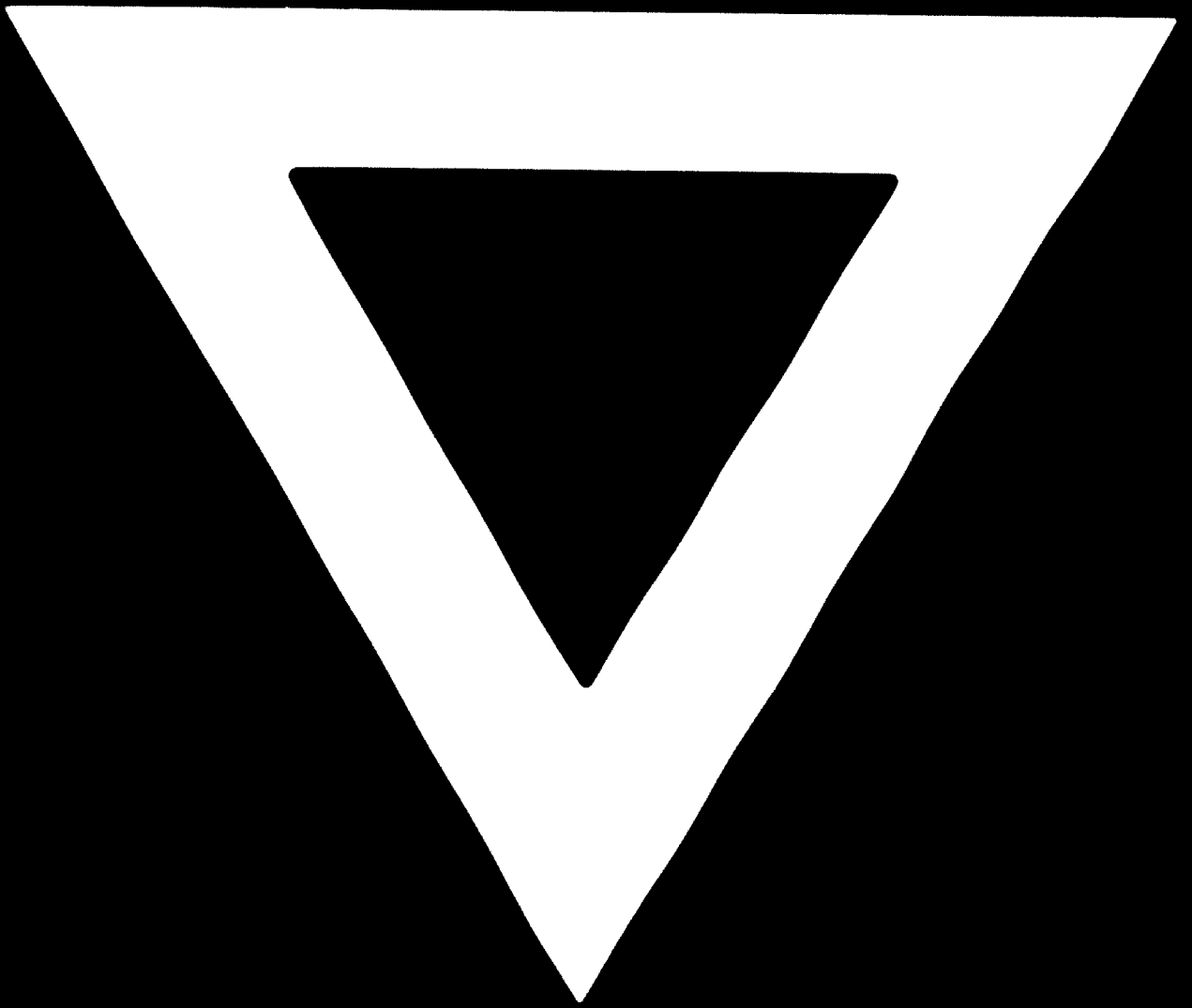
Analysis of the Models and the Planning Planning

<u>Model</u>	<u>The model applied</u>	<u>Character of application</u>	<u>Purpose of operation</u>	<u>Use of completion in comparison to the approval of the plan</u>
Second Five-year plan 1961-1965	Input-output table	experimental	co-ordination, analysis	prior, ulterior
Third Five-year plan 1966-1970	1. Input-output table	integrated	co-ordination	prior
	2. Aggregate programming model	experimental	co-ordination variation calculations	prior ulterior
	3. Two-level programming model		calculations analysis	ulterior ulterior
Fourth Five-year plan 1971-1975	1. Input-output table	integrated	co-ordination	prior
	2. Aggregate programming model	integrated	co-ordination variation calculations analysis	prior prior prior









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