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COUNTRY INDUSTRIAL DEVELOPMENT PROFILE  
OF MALAYSIA<sup>\*</sup>

prepared by the

International Centre for Industrial Studies

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### Preface

The International Centre for Industrial Studies, Regional and Country Studies Section, has undertaken, under its 1978-1979 work programme, the preparation of a series of Country Industrial Development Profiles. These profiles are desk studies, providing statistical and economic analyses of the industry sector, its growth, present status and future prospects. It is hoped that the profiles will provide analyses of use to programming technical assistance, industrial redeployment and investment cooperation activities.

This profile on Malaysia is based on documents, reports and studies available at UNIDO Headquarters. No field survey has been undertaken and some of the data on industry are not up to date.

The views and comments contained in this document do not reflect those of the Government of Malaysia nor do they officially commit the United Nations Industrial Development Organization to any particular course of action.

Explanatory Note

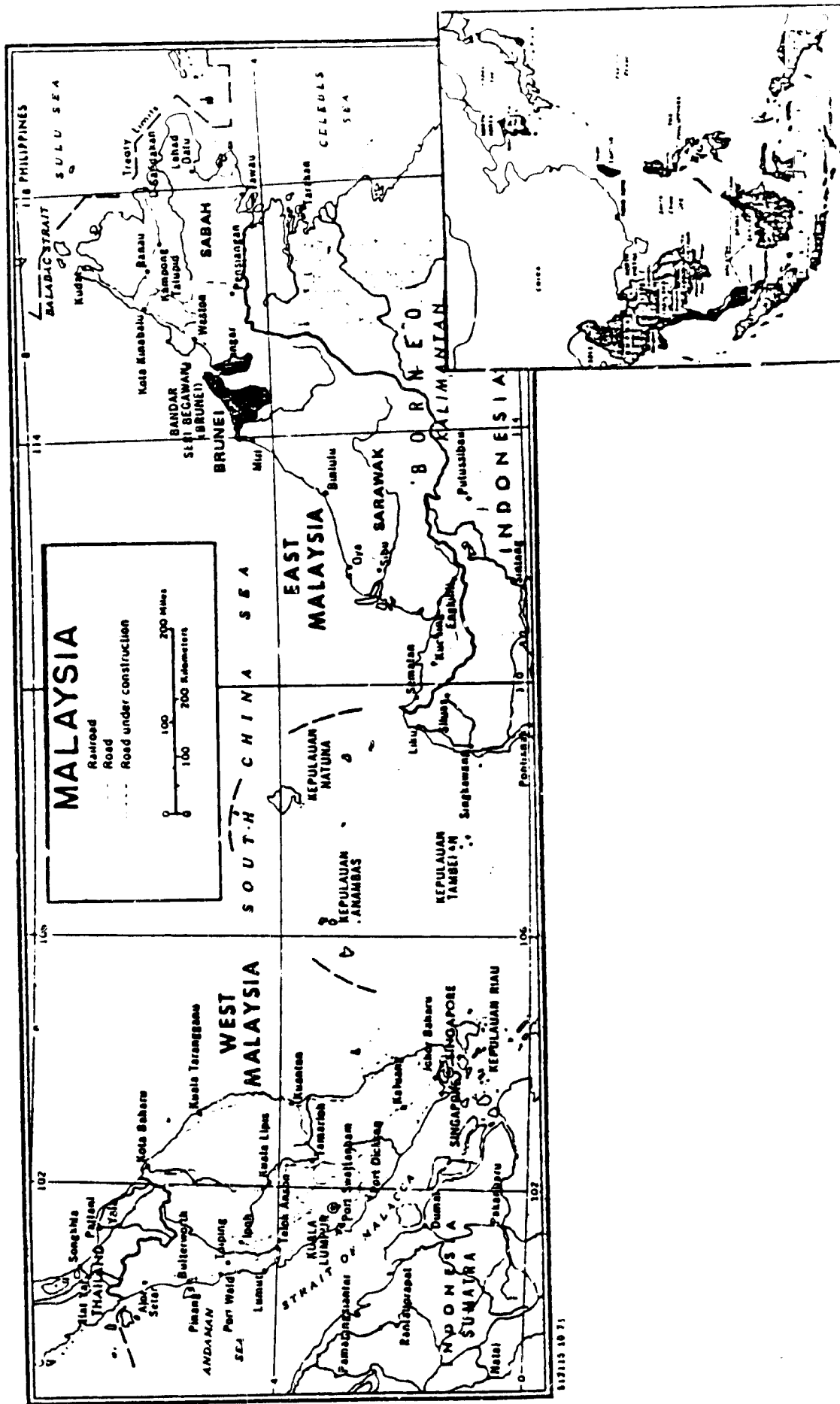
(i) Abbreviations Used

CGC	Credit Guarantee Corporation
COFTI	Committee of Officials on Foreign Trade and Investment
EPU	Economic Planning Unit (in the Prime Minister's Department)
FIDA	Federal Industrial Development Authority
FIMA	Food Industries of Malaysia <b>Sendirian Berhad</b>
FRI	Forest Research Institute
FTZ	Free Trade Zone
GPU	<b>General Planning and Socio-Economic Research Unit (in the Prime Minister's Department)</b>
IGA	Industrial Co-ordination Act of 1975
ITM	Institut Teknologi MARA
LMW	Licensed Manufacturing Warehouses
MARA	Majlis Amanah Rakyat (Council of Trust for the Indigenous People)
MARDI	Malaysian Agricultural Research and Development Institute
MDB	Manpower Development Board
MIDF	Malaysian Industrial Development Finance Berhad
MIDFIC	MIDF Industrial Consultants <b>Sendirian Berhad</b> (subsidiary of MIDF)
MIEL	Malaysian Industrial Estates, <b>Sendirian Berhad</b> (subsidiary of MIDF)
MIM	Malaysia Institute of Management
MIRDC	Metal Industries Research and Development Centre (formerly MIDCOM)
MRPRA	Malaysian Rubber Producers Research Association
MRRDB	Malaysian Rubber Research and Development Board
NDPC	National Development Planning Committee
NEC	National Economic Council (cabinet level)
NEP	New Economic Policy
NERDA	National Entrepreneurial Research and Development Association
NPC	National Productivity Center
PERNAS	Perbadanan <b>Nasional</b> (Bumiputra investment company)
PETRONAS	Petroleum <b>Nasional</b> Berhad
RRIM	Rubber Research Institute of Malaysia
SEDCs	State Economic Development Corporations
SIRIM	Standards and Industrial Research Institute of Malaysia (established in 1975 through merger of NISIR - National Institute for Scientific and Industrial Research - and SIM - Standards Institution of Malaysia)
UDA	Urban Development Authority

(ii) Currency Equivalents

Currency unit:	Ringgit (Malaysian dollar)	M \$
30 December 1978:	1 US \$ = approx.	M \$ 2.20
1975:	1 US \$ = approx.	M \$ 2.40





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Summary and Conclusions

Characterized by a favourable endowment with agricultural and mineral resources, by an open economy and a relatively large share of foreign capital, the first stage of Malaysian industrialization was centered around the exploitation of its natural resources through processing activities. Import substitution-based industrial development was promoted by means of relative moderate tariff protection during the 1960s and resulted in the building up of new and diversified production lines, particularly consumer goods. The beginning of the 1970s was marked by rising emphasis on export diversification and export expansion with the development of secondary stage processing, textiles and electronic products industries. A rather liberal set of incentives, including special export incentives under the Investment Incentives Act of 1968, and a rapid development of industrial estates, including export processing zones, in the developed areas of the country, were the main policy instruments.

The formulation of the New Economic Policy (NEP) in 1970 led to main attention being given to the industrial development as one of the means to promote national unity through a two-pronged strategy of (i) reducing poverty by raising income levels and increasing employment opportunities for all Malaysians and (ii) accelerating the process of restructuring Malaysian society so as to reduce and eventually eliminate the identification of ethnic group with economic function.

The strategy followed in this context has been to link a socio-economic policy of regional distribution with a long-term maximization of national growth, including in the field of industry the decentralization, or regional dispersal, of manufacturing activities and the promotion of local small and medium scale industries. The Industrial Co-ordination Act of 1975 (and subsequent amendments) was enacted to provide the legal framework within which the private sector is encouraged to develop manufacturing industries under the NEP.

The main instruments developed for the carrying out of this strategy, and administrated by FIDA and the SEDCs, consist of a set of financial incentives and the development of industrial estates (and export processing zones) in the less developed areas of the country. Within the general industrial incentives system (pioneer status, investment tax credit, labour utilization relief) an additional year of the tax holiday or additional 5% of investment tax credit can be granted if projects are located in designated "development areas".

Besides providing the indirect support to industry indicated above, the Government is initiating direct public sector participation in industrial ventures, through Bumiputra institutions such as PERNAS and MARA as well as the SEDCs, in both urban and rural areas with the aim that such enterprises be turned over to industrial Malay and other indigenous ownership and management as soon as possible.

The broad categories of industries on which special emphasis for future development is placed are:

- export oriented industries;
- labour intensive industries;
- agro- and other resource-based industries with special emphasis on timber, rubber, palm oil and tin-based industries and on food industries;
- industries that will lead to technological development and improvement of skill among Malaysian workers;
- industries that are able to integrate with existing industries.

A number of factors support the potential for substantial growth in manufacturing during the next decade. Firstly, the relative sizeable natural and human resources of the country provide wide scope for industrial development based on these resources. Secondly, the growth of private disposable income will create strong demands for a widening range of manufactured consumer goods. Thirdly, the progressive enlargement of the industrial base will permit the manufacture, on a viable basis, of a range of intermediate and capital goods.

Labour-intensive industries, such as textiles and electronics have accounted significantly for the momentum of growth of the manufacturing sector hitherto during the 1970s. Continued growth is envisaged as, for instance, the electronics industry broadens to produce more complex sub-assemblies and finished products. A new set of industries is also emerging in the field of petro-chemicals. In addition, the metal-working industries are foreseen to grow rapidly as industrialization advances. The UNDP/UNIDO assistance to be provided for the establishment of the Metal Industry Research and Development Centre (MIRDC) is thus well timed. The principal constraint for an envisaged rapid growth of capital goods industries will be the availability of the requisite skilled manpower at all levels.

The foreseen expansion of industrial output will bring about marked changes in the structure of the country's manufacturing sector; the manufacture of investment goods will become more important than at present, while the relative importance of many intermediate products will successively be reduced. Envisaged vertical integration will make growth in the different parts of the industrial sector mutually reinforcing. The planned expansion and modernization of the agricultural sector is envisaged to occur in a fully integrated manner with the industry sector. There are large opportunities for enlarged local industrial use of natural resources such as rubber, palm oil and timber. Malaysia is, for instance, since long the world's leading producer of natural rubber, yet less than 2% of its production is used in further processing within the country's industry.

I. The general economic background and the role of manufacturing in Malaysia's economy

1. Malaysia consists of two large areas, West Malaysia, generally referred to as Peninsular Malaysia, and East Malaysia, which are separated by the South China Sea; the shortest distance between them being approximately 620 km. Malaysia has a federate structure with 13 states:

Johore, Malacca, Negri Sembilan, Selangor, Pahang, Trengganu, Kelantan, Perak, Penang, Kedah and Perlis in Peninsular Malaysia and Sabah and Sarawak in East Malaysia.

2. Malaysia is rich in land resources. Of a total land area of about 80 million acres. 34 million are suitable for agriculture. Half of that area is currently under agriculture (or, in the case of 5.6 million acres in Sarawak, under shifting cultivation and under native customary rights). Of the 17 million acres available for new development some 4.3 million acres are planned to be developed during the period up to 1990. The country is predominantly agricultural, with about half of the labour force employed in the agricultural sector. The manufacturing sector is, however, growing rapidly and, as can be noted from Table 1, during the 1980s the manufacturing sector is expected to emerge as the dominant productive sector contributing over 26% of the GDP by 1990 while agriculture by that time will account for less than 20%. Such restructuring of the country's economy is projected as the result of an envisaged annual growth on the agricultural side of between 5 and 6% while at the same time the manufacturing sector is expected to grow between 12 and 13% per annum.

3. However, average annual growth in agricultural output during 1976-78 was only 2.6% in real terms and it must more than double in the next two years if Third Malaysia Plan (1976-80) targets are to be met. If not, the 1980 GDP may still be on target, but due to increases primarily in manufacturing which registered an average annual growth

in 1976-78 of 16%. This may look satisfactory on paper but it means more accentuated changes in the economic structure than were neither planned nor desired. Agriculture is the mainstay of the economy and is where the bulk of poverty is concentrated. Increases in manufacturing output without corresponding improvement in agriculture could distort economic development and accelerate rural-urban income disparities and migration.

Table 1: Malaysia: Sector composition of GDP  
(in constant 1970 prices)

Sector	Share of GDP (%)						Average growth rate (%)			
	1970	1975	1976	1977	1978 (est)	1990	1971- 1975 (act)	1976- 1978 (est)	1976- 1980 a/	1981- 1990 b/
Agriculture, forestry fishing	32.1	29.8	30.4	28.6	27.7	19.7	5.9	2.6	6.0	4.9
Mining, quarrying	5.7	4.0	4.7	4.8	4.6	2.6	0.0	6.4	5.7	4.7
Manufacturing	12.2	14.4	15.1	16.3	17.4	26.2	10.9	16.0	12.0	13.0
Trade	13.3	13.6	13.3	13.2	13.1	14.0	7.9	7.0	8.4	8.4
Total GDP (at factor cost)							7.4	7.5	8.5	8.1

a/ Third Malaysia Plan

b/ Outline Perspective Plan

Source: Third Malaysia Plan  
Bank Negara Malaysia Annual Report 1977  
Far Eastern Economic Review, 20 October 1978

4. The growth of the GDP in real terms in 1977 was 7.7% or slightly less than the target. Preliminary estimates indicate a growth of about 7.4% in 1978. Inflation was about 5% in both 1977 and 1978.

5. Malaysia has a relatively favourable population density (averaging about 100 persons per square mile); the total population being 12.5 million. The population is young - 45% of the people are under 15 years of age - and growing at an estimated rate of 2.6 - 2.7% a year.

6. Total employment was at a level of about 4.2 million by the end of 1977, having increased during the year by 3.4%. The unemployment rate declined, however, only marginally in 1977, to 6.7%, due to the expansion of the labour force; an increase in the labour force of 3.3% per annum 1976-80 and 2.9% per annum 1981-90 (or by approximately 150,000 persons per annum) being foreseen. As already indicated the agricultural sector provides employment for about half of the labour force. About 13% is employed in manufacturing.<sup>1/</sup> By 1990 it is projected that the share of agriculture in total employment will have been reduced to about 35%, while manufacturing will employ about half that many people, or about 17%.

Table 2: Malaysia: Employment by Sector 1970-1990

<u>S e c t o r</u>	<u>1970</u>		<u>1975</u>		<u>1990</u>	
	Est. employment (000)	Share of total (%)	Est. employment (000)	Share of total (%)	Est. employment (000)	Share of total (%)
Agriculture, forestry, fishing	1,787	53.5	1,937	49.3	2,231	35.1
Mining and quarrying	87	2.6	87	2.2	93	1.5
Manufacturing	290	8.7	398	10.1	1,066	16.8
Trade	380	11.4	496	12.6	988	15.5
Total employment	3,340	100.0	3,928	100.0	6,348	100.0
Population	10,770		12,249		18,103	
Labour force	3,607		4,225		6,587	
Unemployment	267		297		239	
Unemployment (%)	7.4		7.0		3.6	

Source: Third Malaysia Plan

7. A most distinctive characteristic of Malaysia is its ethnic, linguistic, cultural and religious pluralism, broadly based on the Malay, Chinese and Indian populations; the population by ethnic groupings (according to the 1970 population census) being as follows:

<sup>1/</sup> In its reply transmitted on 8.1.79 on the UNIDO questionnaire for the 2nd monitoring exercise on the implementation of the Lima Declaration and Plan of Action, the Government has indicated that by 1978 it is estimated that the manufacturing sector accounts for 13% of the total labour force and the agricultural sector for 44%.

Malays	46.8%
Chinese	34.1%
Indians, Pakistanis	9.0%
Dayaks, Kadazans and other indigenous people	8.7%
Others	1.4%

8. Malaysia's GNP per capita in 1978 was M\$ 2.758 (= US \$ 1,344), which is after Iran and Singapore the highest among developing countries in Asia. Also in non-monetary terms standard-of-living indications compare favourably with those of other ESCAP region developing countries as shown in the following table:

Table 1. Standard-of-living Indications  
in Selected Asian Countries

<u>1974</u>	Food calories per head per day	Newsprint consump- tion per head per year (kg)	Telephones per 1000 population	Passenger cars per 1000 population	Steel consump- tion per head per year (kg)	Energy consump- tion of coal equivalent per head (kg)
Malaysia	2591	2.7	22	36.9	69	560
Burma	2214	0.4	1	1.2	1	56
India	1971	0.3	3	1.2	14	201
Indonesia	2128	0.5	2	2.4 <sup>c/</sup>	9	158
Iran	2367	0.7	24	12.9 <sup>b/</sup>	93	1272
Pakistan	2132	0.3	3	2.7 <sup>c/</sup>	6	188
Philippines	1963	1.5	11	8.8	29	309
Republic of Korea	2715	4.8	35	5.0	124	961
Singapore	2839	12.6	125	67.0	710	2060
Sri Lanka	2018	0.7	5 <sup>c/</sup>	6.8	4	140
Thailand	2360	1.4	7	4.6 <sup>a/</sup>	22	300

<sup>a/</sup> 1971  
<sup>b/</sup> 1972  
<sup>c/</sup> 1973

Sources: FAO Production Year Book 1976, Vol. 30

UN Statistical Yearbook 1975



9. The country's relatively advanced stage can also be seen in its high per capita fixed capital formation, that is the product of the per capita GDP and the investment ratio (ratio of the fixed capital formation to the GDP), in the following table:

Table 4. Fixed Capital Formation in Selected Asian Countries

<u>1974</u>	<u>Per capita fixed capital formation (US \$)</u>
Malaysia	103
Burma	6
India	14
Indonesia	15
Iran	145
Pakistan	21
Philippines	43
Republic of Korea	81
Singapore	490
Sri Lanka	36
Thailand	42

Source: UNIDO computer print-outs

UN Monthly Bulletin of Statistics, Oct. 1977

10. There are, however, some very complex issues underneath an apparently stable climate of communal cooperation. In the pre-independence period, the economy of the States now forming Malaysia centered around the production of a few primary commodities, in particular rubber and tin, for export in return for the import of essential goods and manufactured goods. This led to a process of growth not limited to one or two commercial and industrial centres, but involving a relatively wide spread of economic activities also to peripheral areas. However, the opening up of extensive land areas for mining (tin) and plantation (rubber) activity by overseas investors was made possible only through Government-sponsored and encouraged immigration of foreign labour into the country principally from India and China. The difficult task of bringing the indigenous population into industrial activity and out of their

traditional subsistence activities was thus avoided. Accordingly, from the very beginnings of the development of the country, a dualistic economic structure prevailed in the specialization of the indigenous people in subsistence agricultural activity and the predominance of immigrant labour in all aspects of wage employment.

11. The present urban-rural disposition of the population in Peninsular Malaysia is shown in the following table:

Table 5. Peninsular Malaysia: Urban-Rural Distribution of Population 1975

<u>(%)</u>	<u>Urban</u>	<u>Rural</u>
Malays and other indigenous people (Bumiputras)	18.0	82.0
Chinese	50.7	49.3
Indian	37.7	62.3
Others	46.9	53.1
Total	32.0	68.0

Source: Third Malaysia Plan

12. A study of the 1970 census data shows that, in Peninsular Malaysia, the average Malay income per capita was one half of that of the Chinese, while the average per capita income of the Indians lay between the two. About 80% of the Malays are employed in rural areas, primarily in traditional agriculture, compared to only a little over 50% of the non-Malays. In urban areas, which account for about one-third of total employment, the non-Malay share of jobs exceeds 75%. In most of the major economic sectors Malays tend to be poorly represented in managerial, professional, supervisory and clerical occupations.

13. Imbalances in the ownership of assets (see Tables 6 and 7) are a further source of ethnic group disparities. Malay agricultural land-holdings outside traditional agriculture have until recently been negligible. This situation is now being changed by the land development schemes. In

the corporate sector the Malay share of the country's share capital of limited companies was about 7.8% in 1975 (against the Plan target of 9%).

Table 6. Peninsular Malaysia: Ownership of Share Capital in Limited Companies, 1970-75

	1970 (actual)		1975 (estimated)		Average annual growth rate (%) 1971-75
	M\$ mill.	%	M\$ mill.	%	
Malays and Malay interests	125.6	2.4	768.1	7.8	43.6
Malays <sup>a/</sup>	84.4	1.6	227.1	2.3	21.9
Malay interests <sup>b/</sup>	41.2	0.8	541.0	5.5	67.4
Other Malaysians	1,826.5	34.3	3,687.3	37.3	15.1
Chinese	1,450.5	27.2	2,755.9	27.9	13.7
Indians	55.9	1.1	119.2	1.2	16.3
All others <sup>c/</sup>	320.1	6.0	812.2	8.2	20.5
Foreign <sup>d/</sup>	3,377.1	63.3	5,434.7	54.9	10.0
Total private sector <sup>e/</sup>	5,329.2	100.0	9,890.1	100.0	13.2

<sup>a/</sup> Includes institutions channelling private Malay funds.

<sup>b/</sup> Shares considered to be held in trust by public agencies such as MARA, PERNAS, UDA, SEDCs, Bank Bumiputra and Bank Pembangunan.

<sup>c/</sup> Includes nominee companies and third-company minority holdings.

<sup>d/</sup> Non-residents. Shares held by individuals and net assets, in 1970 prices, of branches of companies incorporated abroad.

<sup>e/</sup> Includes the trust agencies listed in footnote b.

Source: Third Malaysia Plan

Table 7. Peninsular Malaysia: Ownership and Participation in Key Sectors, 1972-73

(Percentage share in each sector) Sector	Malay <sup>1/</sup>	Chinese	Indian	Others <sup>2/</sup>	Foreign
Modern agriculture (planted acreage, 1973)					
Rubber and oil palm	21.0	26.3	2.6	7.9	42.2
Coconut and tea	0	19.9	10.8	0.4	68.9
Industry (value of fixed assets, 1972)					
Mining	0.7	35.2	0.1	9.5	54.5
Manufacturing	6.9	32.5	0.8	14.0	45.8
Construction	2.4	85.6	1.4	3.8	6.8

<sup>1/</sup> Government ownership is added to the Malay category as most of it is held in trust by public enterprises and agencies. In rubber and oil palm, Government ownership, excluding FELDA, is 0.9%, in manufacturing 5%.

<sup>2/</sup> Includes other Malaysians as well as establishments where no particular group owns more than 50% of the assets.

Source: Third Malaysia Plan

14. Less known and discussed is the equally important and significant overall inequality of income. In 1970, in Peninsular Malaysia, the bottom 40% of the people received only 12% of the income, while the top 5% received 28% of the income. While the income differences between races are significant and have important political and economic implications, the inequality within the major races is also substantial.

15. Since May 1969 - when very serious racial disturbances occurred - there has been an increasing sense of urgency to improve the economic opportunities for the Malay part of the population, specifically aiming at a redressing of racial imbalances. The Government incorporated within the framework of the Second Malaysia Plan 1971-75 a New Economic Policy (NEP) which was spelled out in much more detail two years later in the Mid-Term Review of the Plan. The objectives of the NEP are quantified in an Outline Perspective Plan for the period 1971-90 (which gives the framework for the five-year Development Plans).

16. The overriding objective of the NEP is to promote national unity through the two-pronged strategy of

- (i) reducing and eventually eradicating poverty by raising income levels and increasing employment opportunities for all Malaysians irrespective of race and
- (ii) accelerating the process of restructuring Malaysian society so as to reduce and eventually eliminate the identification of race with economic function.

17. More specifically, the policy proposes to reduce in a 20 year period (1971-1990) the sharp income differences between Malays and Non-Malays by reducing the disparities in the ownership and control of wealth in the modern sector and by reducing the concentration of Non-Malay presence in the relatively high income urban sector. The strategy adopted by the planners is to place the restructuring objectives within a context of economic expansion, coupled with the formation of various financial institutions to buy share capital and hold it in trust for the Malays and other indigenous people who are urged to save and so purchase the shares. There are also intensified efforts in technical and managerial training for Malays to increase their job competitiveness. The Government fully realizes that national unity has several facets and, as the Second Malaysian Plan stresses, "there must be no delusion that national unity can be achieved by purely economic means". Nevertheless, the formulation and implementation of a programme that will contribute to the achievement of the basic goals of the NEP is Malaysia's most important economic challenge.

18. In the long run, the responsibility for providing increased employment and incomes for the Malays and other indigenous people will weigh less heavily on the agricultural sector as poverty is progressively eradicated and full employment is approached. The industrial sector will become an increasingly important employment source. As indicated in Table 1 above, Malaysia's relative dependence on primary products will be reduced, while the share of industrial output will increase through the structural changes that are usually associated with economic growth. If Malaysia is able to sustain an average growth rate of around 8 percent per year over the next ten years, the per capita GNP (in 1975 dollars) is likely to exceed US \$ 1.500 by 1985. The size of the Malaysian economy would then be approaching that of present day Austria. Substantial opportunities for industrial expansion are thus likely to exist if the momentum of growth can

be maintained.

19. The Malaysia economy can be characterized as an "export economy"; in 1977 merchandise exports (M \$ 14.9 billion) made up more than half of the GDP (M \$ 28 billion). Further, these exports are highly concentrated to a few major items: rubber M \$ 3.4 billion, sawn logs and timber M \$ 2.4 billion, petroleum M \$ 2.0 billion, palm oil and palm kernel oil M \$ 1.9 billion and tin M \$ 1.7 billion giving a total of about M \$ 11.5 billion for these five main export items. Looking at it from another side, it should be pointed out that Malaysia is dependent on imports for close to half of total goods and services consumed.

Table 8. Malaysia: Balance of Payments, 1975-77

M \$ million	1975	1976	1977
Merchandise exports f.o.b.	9,042	13,288	14,900
Merchandise import f.o.b.	8,113	9,478	11,287
Merchandise surplus	+ 929	+3,810	+3,613
Services deficit	-1,225	-1,989	-2,275
Private transfers (net)	- 160	- 170	- 175
Government transfers (net)	+ 35	+ 35	+ 35
Balance on current account	- 421	+1,686	+1,198
Long-term capital (net)	+1,404	+ 987	+1,184
Private financial capital (net)	- 83	- 175	-1,280
Errors and omissions (net)	- 729	- 444	- 347
Overall surplus	+ 171	+2,054	+ 755

Source: Bank Negara Malaysia Annual Report 1977

20. With an export sector accounting for about half of GDP (and with about half the labour force engaged in export or export-oriented agricultural activities), a main economic concern for Malaysia has been the uncertain prospects for its major exports, especially rubber and tin, supply and demand for which are notoriously inelastic (and therefore variations in industrial demand for these products produce violent price fluctuations). The experience in the case of Malaysia shows, however, that the impact of export instability appears to have been largely absorbed by the fluctuations in the external balance and hence in the external reserves

without much internal disturbance. This notwithstanding, stable export earnings would certainly be highly desirable since it would eliminate uncertainty, enable more accurate development planning and reduce the need to hold large foreign exchange reserves. <sup>1/</sup>

21. One way in which Malaysia is seeking to reduce its vulnerability to fluctuations in commodity prices is through the active support and promotion of export price stabilization schemes (based on buffer stocks financed by consumers as well as producers) and of export earnings or Stabex schemes, as of the type financed by the ECC under the Lomé Convention, and which both Japan and the US as well as ECC are being asked to consider for ASEAN.

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<sup>1/</sup> Illustrative of the vulnerability of Malaysia's export earnings from commodities is that in 1976 the balance-of-payments was M \$ 1,735 million in surplus on current account, having been M \$ 409 million in deficit the previous year. The rise in volume of exports in 1976 was 18.3%, not very much greater than the 13.7% rise in the volume of imports. Yet with the benefit of a 23% rise in export prices, Malaysia's exports in value terms in 1976 increased by no less than 45.5%. Import prices rose only by 2.5%.

II. Structure of the manufacturing sector

(a) Manufacturing sector by branches of industry

22. According to latest available industry statistics about 40% of the value added of the manufacturing industry in Peninsular Malaysia consists of consumer products, about 49% of intermediates and 11% of capital goods (see Table 9). A detailed breakdown of manufacturing in ISIC categories, showing number of establishments, number of persons engaged, value added, and gross fixed capital formation is given in Table 10a in respect of Peninsular Malaysia as of 1973 and in Table 10b in respect of East Malaysia as of 1974.

Table 9: Peninsular Malaysia: Composition of Manufacturing industry, 1970 and 1975 (% share)

	<u>1970</u>	<u>1975</u>
<u>Consumer goods</u>	35.6	39.8
Processed food	3.8	3.1
Oils and Fats	6.6	12.6
Other food	16.9	14.6
Beverages and tobacco	5.3	5.3
Textiles and clothing	2.5	3.8
Leather and footwear	0.5	0.4
<u>Intermediate products</u>	56.5	49.3
Sawmills and furniture	5.4	5.7
Paper and printing	2.3	2.4
Industrial chemical and fertilizer	1.5	1.6
Chemical products	2.8	4.0
Petroleum refining and products	2.6	2.0
Rubber processing	20.1	15.2
Rubber products	1.8	1.8
Cement	1.1	1.2
Non-metallic products	1.2	1.2
Ferrous products	4.0	4.3
Non-ferrous products	13.7	9.9
<u>Investment products</u>	7.9	10.9
Industrial machinery	1.5	1.9
Electrical machinery	1.3	2.4
Transport equipment	4.0	4.7
Other manufacturing products	1.1	1.9

Source: Third Malaysia Plan



Table 10 a: Peninsular Malaysia: Structure of the manufacturing sector 1973 a/

<u>ISIC</u>	<u>Industry</u>	<u>Number of establishments</u>	<u>Number of persons engaged</u>	<u>Value added (in factor values) M\$ million</u>	<u>Gross fixed capital formation M\$ million</u>
311/2	Food products	3053	43,470	365	80.42
313	Beverages	73	3,170	61	2.06
314	Tobacco	168	9,050	130	9.83
321	Textiles	241	22,950	105	71.92
322	Wearing apparel	218	10,810	31	11.09
323	Leather products	53	870	3	0.39
324	Footwear	169	1,980	6	0.55
331	Wood products	1004	41,820	304	74.30
332	Furniture and fixtures	863	6,590	19	3.43
341	Paper and paper products	152	4,000	18	4.81
342	Printing, publishing	475	14,780	114	19.66
351	Industrial chemicals	54	2,880	61	13.82
352	Other chemical products	283	7,330	98	11.87
353	Petroleum refineries	4	490	49	17.10
354	Petroleum, coal products	6	120	2	0.18
355	Rubber products	561	25,070	222	47.89
356	Plastic products, n.e.c.	299	9,240	44	13.94
361	Pottery, china, etc.	49	1,140	6	1.15
362	Glass and products	34	1,540	12	15.23
369	Non-metal products, n.e.c.	332	11,180	104	42.18
371	Iron and steel	189	6,620	76	13.99
372	Non-ferrous metals	9	700	10	1.27
381	Metal products	1489	20,000	114	19.66
382	Machinery n.e.c.	857	14,660	87	28.81
383	Electrical machinery	109	25,400	188	58.92
384	Transport equipment	173	8,810	62	9.14
385	Professional goods	26	1,710	10	5.55
390	Other industries	121	1,910	7	0.93
3	Manufacturing total	11,064	298,290	2,308	580.09

Source: UN, Yearbook of Industrial Statistics 1976

a/ 1973 Census taken by the Malaysian Department of Statistics

Table 10b. East Malaysia: Structure of the Manufacturing Sector 1971

ISIC	Industry	Number of establishments	Number of employees	Value added in factor values M\$ million	Value added per employee
311/2	Food products	125	2,354	12.88	5,472
313	Beverages )	32	795	7.18	9,031
321	Textiles )	7	77	0.48	6,234
322	Wearing apparel )	60	405	2.74	6,765
324	Footwear	60	405	2.74	6,765
331	Wood products	133	10,462	76.64	7,326
332	Furniture and fixtures	53	926	3.85	4,158
342	Printing, publishing	43	1,792	9.68	5,402
351	Industrial chemicals )				
352	Other chemical products )				
353	Petroleum refineries )	43	1,175	30.07	25,591
355	Rubber products (incl. tanneries from group 323) )				
361	Pottery, China, etc. )	55	787	3.24	4,117
369	Non-metal products, n.e.s. )				
381	Metal products	46	806	4.89	6,067
382	Machinery n.e.s.	26	311	1.36	4,373
384	Transport equipment	31	1,079	7.83	7,257
390	Other industries	26	355	1.75	4,930
3	Manufacturing total	680	22,136	162.59	7,345

Source: UN Yearbook of Industrial Statistics 1976

Note: Figures refer to establishments with 50 or more persons.  
 Figures for manufacturing total relate to industries reported.

23. An analysis has been made recently by K.A.M. Ariff<sup>1/</sup>, of the structural changes in Malaysia's manufacturing sector in the last decades with import substitution giving way gradually to domestic market expansion, and export expansion playing an increasingly important role as the industries gain competitive strength when emerging out of their infancy stage. It was found, not suprisingly, that the relative importance of import substitution, export expansion and domestic demand expansion varies between industries. Fields in which import substitution played a key role include food, textiles, petroleum products, transport equipment, leather products, electrical machinery and basic metals. Domestic demand expansion made substantial impact in the following fields: furniture and fixtures, non-electrical machinery, printing and publishing, chemicals, wood products, rubber products and metal products. There are, however, evidence to show that import substitution is petering out as major source of growth, for instance in the case of beverages, textiles, wearing apparel, rubber products, chemicals, petroleum products, electrical machinery and transport equipment, while domestic demand expansion on the other hand seems likely to continue to exercise an increasingly powerful influence over the growth.

(b) Export production

24. Although exports of manufactures have on the whole played a rather limited role (about 1/5 of the country's industrial production is exported), substantial ratios of exports relative to output were at an early stage achieved in the case of certain manufactured items (such as wearing apparel and non-electrical machinery) as illustrated in Table 11, showing ratios from the years 1963, 1970 and 1972.

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<sup>1/</sup> "Performance and Perspectives of the Malaysian Economy", Chapter 3: "Industrialization", by K.A.M. Ariff, Institute of Developing Economies, Tokyo, March 1976.

Table 11: Peninsular Malaysia: Export performance of manufactures in selected industrial sectors

(%)	<u>Export-Output Ratio</u>		
	<u>1963</u>	<u>1970</u>	<u>1972</u>
Food	31.0	26.4	25.6
Textiles	28.1	17.0	25.2
Wearing Apparel	13.8	64.0	88.8
Wood Products	1.2	19.4	24.8
Furniture and Fixtures	18.3	16.8	18.2
Paper and Paper Products	11.3	19.9	24.5
Leather Products	8.9	3.0	18.2
Rubber Products	17.1	19.8	23.4
Metal Products	4.2	9.7	11.9
Non-Electrical Machinery	3.4	26.2	45.9
Electrical Machinery	23.4	20.1	16.4
Transport Equipment	2.8	14.9	28.9
All manufacturing	14.1	20.6	21.9

Source: "Performance and Perspectives of the Malaysian Economy",  
March 1976, Institute of Developing Economies, Tokyo.

25. During the Second Plan period the value of manufactured exports increased by, on the average, 29% which was substantially higher than the Plan target of 15%. A detailed breakdown, identifying the main products, for the years 1971 - 1974 is given in Table 12 relating to Peninsular Malaysia only.

Table 12: Peninsular Malaysia: Export of major manufactured goods 1971 - 1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<b>FOOD PRODUCTS</b>	197.7	189.2	199.7	222.5
Preserved Fruits and Preparation	46.7	49.0	46.2	55.6
Milk and Cream	19.4	24.9	33.8	32.1
Sugar and Honey	7.6	18.4	35.0	37.9
Cereal and Flour Preparations	5.6	13.3	18.4	22.3
Animal Feeding Stuffs	7.4	12.7	27.3	23.8
Fish canned and preparations	4.7	7.3	11.3	13.4
Preserved Vegetables	5.9	6.8	9.4	9.7
<b>BEVERAGES AND TOBACCO</b>	49.9	50.7	61.3	73.4
Tobacco Manufactures	36.5	34.9	42.7	47.7
Alcoholic Beverages	12.6	15.3	17.5	24.2
<b>PETROLEUM PRODUCTS</b>	30.6	28.2	37.8	44.9
<b>CHEMICAL &amp; CHEMICAL PRODUCTS</b>	58.4	77.0	99.6	121.4
Perfume, Toilet Preparations	18.3	20.5	25.7	28.1
Medicinal & Pharmaceutical Products	11.8	16.9	17.8	21.5
Chemical Elements & Compounds	6.7	11.6	14.8	19.7
Dyeing, Tanning & Coloring Materials	7.3	7.0	8.3	9.8
Fertilizers, Manufactured	6.3	7.5	8.9	9.1
<b>RUBBER PRODUCTS</b>	26.6	32.0	36.2	51.5
Rubber Manufactures	9.9	20.3	23.0	32.4
Rubber Fabricated Materials	16.7	11.7	13.2	19.1
<b>WOOD OR CORK MANUFACTURES</b>	82.7	123.1	212.2	174.0
Wood Simply-Shaped	79.1	119.9	208.6	150.3
<b>PAPER PRODUCTS</b>	6.5	10.1	12.4	12.7
Paper, Paperboard Articles	5.4	8.9	10.0	10.1
<b>TEXTILE PRODUCTS EXCEPTS CLOTHING</b>	24.3	41.3	62.1	82.1
Cotton Fabrics of Standard Type	14.1	24.4	40.3	44.4
Made-up Articles of Textiles	2.8	5.5	5.9	9.6
Textile Fabrics of Standard Type	1.2	5.8	6.7	6.5
<b>NON-METALLIC MINERAL PRODUCTS</b>	22.4	20.8	22.7	29.9
Lime, Cement Fabricated Building Materials	17.1	11.4	13.8	14.1
Glassware	1.1	2.6	2.4	2.9
<b>IRON AND STEEL</b>	20.7	36.8	39.8	53.1
Iron and Steel Bars, Rods Including				
Sheet Piling	10.0	21.5	17.7	19.3
Universal, Plates, Iron or Steel Sheets	6.3	7.6	10.6	18.7
Tubes, Pipes, Fittings of Iron and Steel	2.5	5.4	7.6	11.9
<b>METAL PRODUCTS</b>	15.5	21.6	31.5	32.4
Finished Structural Parts and Construction	4.7	5.2	6.9	9.7
Household Equipment	2.3	3.3	3.8	4.2
Metal Containers for Storage and Transport	1.9	2.7	3.8	4.5
Wire Products (excluding Electric, Fencing Grill)	1.0	4.7	7.7	8.6
<b>MACHINERY AND TRANSPORT EQUIPMENT</b>	61.7	66.9	125.6	391.9
Machinery, Non-Electrical	21.4	22.2	51.8	136.5
Electrical Machinery	21.8	23.7	38.0	203.1
Transport Equipment	18.3	21.0	35.8	52.3
<b>FURNITURE</b>	4.2	6.0	8.0	9.6
<b>CLOTHING</b>	27.5	46.2	66.3	85.9
<b>FOOTWEAR</b>	14.2	24.5	22.1	29.7
<b>PROFESSIONAL, SCIENTIFIC AND CONTROLLING INSTRUMENT</b>	0.7	1.2	104.0	223.8
<b>MISCELLANEOUS</b>	20.4	33.0	45.1	60.1

Source: Department of Statistics, Kuala Lumpur

(c) Employment in manufacturing

26. The manufacturing sector generated a total of 108,300 new jobs during the Second Malaysia Plan period, 1971-1975, through an average annual growth rate of 6.0%. This represented a shortfall of 0.4% when compared to the Plan target of 7.0%. The bulk of the employment created was in the textiles, wood, chemicals, electronics and transport equipment industries. During 1976, the manufacturing was the most important generator of new employment opportunities largely because of a strong recovery in the labour-intensive and export-oriented industries, such as electronics, plywood and particle board mills. An estimated 47,000 new jobs were created by manufacturing activities during the year resulting in a total employment in this sector of 445,200 at the end of 1976.

27. Bearing in mind the fundamental objectives of substantially reducing the present rate of about 7% of unemployment and taking into account an annual growth rate of the labour force of more than 3%, the industrialization programme has been designed to be labour-absorbing. It was recently stated by the Minister of Labour and Manpower that a basic aim of the Government would be to reduce the country's rate of unemployment to 3% or 4% by 1990. To promote the creation of employment the Government is encouraging foreign investment in joint partnership with local investors, and encouraging the development of small-scale labour intensive industries including agro-based and export oriented industries. A number of fiscal incentives including tariff protection and tax incentives have also been provided to labour intensive industries and export oriented industries. Besides the use of tariffs and quotas, labour utilization relief is being introduced to provide tax incentives for labour intensive industries (see further Chapter VI below).

28. Despite deliberate attempts to encourage labour-intensive industries, technological constraints seem to impose serious limits to the scope for any major switch from capital intensive to labour intensive production processes. Only a few industries could possibly absorb more labour inputs given the level of capital inputs, without having to suffer deterioration in quality or increases in production costs. Although Malaysia has abundant labour supply, the major proportion of the labour force lack formal education. While there is over supply of unskilled labour, there is also an acute shortage of skilled personnel. [In the public sector, for example, according to the Ariff study

of 1976, the vacancy rate for engineers and architects is more than 23%; and for middle-level technicians it is 25%].

29. The skills bottleneck could thus frustrate attempts to develop outward looking industries. As consequence of such constraints the Malaysian export-oriented industries hitherto developed, have been largely concentrated on unskilled labour-intensive manufacturing activities, with the main foreign markets being United Kingdom, United States and Japan (which jointly take about 50% of Malaysia's manufactured exports). As a long-term measure the skill composition of the labour force will be expected to be changed through education and training; the Malaysian budget expenditure on education constitutes as much as 20% of the total government expenditure and 4.7% of the GDP.

(d) Capacity utilization

30. A recent study by David Lim <sup>1/</sup> on capacity utilization in Malaysian industry shows that the capital stock in Malaysian manufacturing is utilized to a level which is somewhat less than satisfactory, although it is higher than that in corresponding industries in, for instance, Pakistan, Republic of Korea and other developing countries for which capacity utilization studies have been made. The relative differences between various industries in Malaysia is illustrated in the following table:

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<sup>1/</sup> David Lim, "Actual, Desired and Full Levels of Capital Utilization", The Journal of Development Studies, October 1977. (Note should also be made of the recent surveys conducted by the Bank Negara Malaysia referred to in paragraph 63 below).

Table 13a: Malaysia: Capacity utilization at different industrial sectors, 1972

<u>ISIC</u>	<u>Industry sector 1972</u>	<u>Actual level as % of full capacity */</u>	<u>Actual level as % of desired level of capital utilization in terms of time **/</u>
311	Food	74	70
321	Textiles	86	79
322	Wearing apparel	100	45
331	Wood Products	85	58
341	Paper & Paper Products	83	61
342	Printing	90	46
351	Industrial Chemicals	87	94
355	Rubber Products	85	81
361	Pottery, china	100	27
362	Glass & Glass Products	97	100
369	Non-Metallic Mineral Products	96	93
371	Iron & Steel Products	91	91
381	Fabricated Metal Products	74	68
382	Machinery	79	28
383	Electrical Machinery	71	54
384	Transport Equipment	81	26
3	Total Manufacturing	89	73

\*/ 'Full capacity' = maximum capacity, according to the entrepreneurs' assessment, to produce under 'normal' circumstances.

\*\*/ For instance, desired number of hours of operation per day may be 16 hours, while the actual operation schedule (=normal circumstances) may be only 8 hours.

Source: David Lim, "Actual Desired and Full Levels of Capital Utilizations" The Journal of Development Studies, October 1977.

31. Out of 350 establishments sampled by David Lim, some 60% reported a lower level of capital utilization than desired. The reasons given by the entrepreneurs for their inability to operate their plants at the desired level were essentially these:

- (i) a lack of demand because of foreign competition and/or because of a surfeit of producers within Malaysia;



- (ii) the unavailability of imported inputs which are essential to the production process for technological reasons at the appropriate time because of logistics problems;
- (iii) a shortage of domestic inputs because of supply bottlenecks;
- (iv) difficulty of obtaining supervisory staff either because of shortage of such personnel per se or because of the unwillingness of supervisors to work **the night or dawn shifts**;
- (v) unexpected government intervention such as the more determined enforcement of the regulation that the labour force should reflect the racial composition of the population at the national level.

32. These difficulties were experienced in the various sectors as follows:

Table 13b: Malaysia: Causes for Capital Under-Utilization  
in Malaysian Industry

ISIC	Industry Sector	% distribution of most important cause for underutilization						Unexpected Gov't intervention
		Shortage of demand	Unavailability of imported inputs	Unavailability of domestic inputs	Shortage of supervision personnel	Shortage of skilled & semi-skilled labour		
311	Food	53	5	39	0	0	0	3
321	Textiles	33	33	0	11	0	0	23
322	Wearing apparel	0	0	0	50	0	0	50
331	Wood products	17	0	48	14	4	0	17
341	Paper and paper products	100	0	0	0	0	0	0
342	Printing	78	11	0	0	0	0	11
351	Industrial chemicals	50	0	0	50	0	0	0
355	Rubber products	40	13	13	17	0	0	17
361	Pottery, china, etc.	0	0	0	0	0	0	100
362	Glass and glass products	100	0	0	0	0	0	0
369	Non-metallic mineral products	25	13	13	12	0	0	37
371	Iron and steel products	14	29	14	29	14	0	0
382	Machinery	67	0	0	17	0	0	16
383	Electrical machinery	55	0	0	36	0	0	9
384	Transport equipment	89	11	0	0	0	0	0
3	Total manufacturing	50	8	16	12	2	12	12

Source: David Lim, "Actual, Desired and Full Levels of Capital Utilization", The Journal of Development Studies, October 1977.

33. Conclusions of a similar nature were arrived at in a recent report by FIDA on Malaysia's furniture industry <sup>1/</sup>, an industry which is characterized by low capital and small-scale operations, and which caters mainly for the domestic market. Out of the estimated 800 furniture makers and manufacturers which make up the industry the overwhelming majority are small family concerns with a turnover of less than M\$ 1 million per year. There are only 5 export-oriented furniture manufacturers which have annual outputs ranging between M \$ 2 million to M \$ 12 million per year of which more than 80% is exported. The general growth of the industry has been uneven, a fact which, according to the FIDA report can be attributed to a number of problems facing the industry:

- Lack of capital. This has prevented the expansion or improvement of existing plants thus restricting production capacities.
- Inadequate technical knowledge. Most of the factories still follow traditional, inefficient techniques of carpentry operations and are unable to adopt modern technical know-how. The machines used are either old-fashioned or under-utilized.
- Shortage of varieties of finishing and upholstery material such as lacquer, finishing fabrics, polyurethane foam, fittings etc. at reasonable prices.
- A dearth of designing talent and innovation. This has resulted in the production of furniture which is hardly of the best quality.
- Difficulty in getting raw material supplies. Only 10 out of the 50 commercial species of timber found in Malaysian forests can be used for making furniture.
- Shortage of skilled manpower at the supervisory and technical level.

(e) Productivity

34. The productivity in the Malaysian manufacturing industry is relatively high in comparison with other Asian countries as illustrated in Table 14 below. The comparison of relative productivity in various countries of the region is arrived at by dividing manufacturing production (measured as manufacturing's contribution to GDP) expressed in respective local currency by the number of workers that contributed to that production. This per capita production figure is then divided by the average monthly wage in manufacturing also expressed in the local currency. The result is ratio figures which are roughly comparable, i.e. they give an indication of how countries rank in the crucial area of productivity in combination with differing wage rates.

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<sup>1/</sup> Asia Research Bulletin, 31 May 1977

Table 14: Relative productivity of workers in selected Asian countries, 1976

<u>Country</u>	<u>Currency</u>	<u>Manufacturing's contribution to GDP (million of local currency)</u>	<u>Total number of workers in manufacturing</u>	<u>Monthly wages in manufacturing (local currency)</u>	<u>Relative productivity</u>
Singapore	S \$	3,606	234,000	328	46,98
Sri Lanka	R	3,900	191,000	488	41,84
Philippines	P	31,258	1,680,000	450	41,35
Malaysia	M \$	3,666	479,000	248	30,86
Australia	A \$	17,121	1,400,000	462	26,47
Japan	Yen	57,600,000	13,450,000	183,557	23,33
Hong Kong	HK \$	11,000	773,700	654	21,74
Thailand	Baht	60,518	2,019,000	1,400	21,41
Rep. of Korea	Won	2,887,120	2,678,000	51,685	20,85
Pakistan	R	20,700	2,800,000	450	16,43
India	R	106,290	19,300,000	470	11,72

Sources: ILO Labour Statistics  
UN Monthly Bulletin of Statistics

(f) Public sector industrial enterprises

35. At the time of independence in 1957 less than a dozen economic enterprises - mainly in the service sector - were operating under public ownership in Malaysia. Since then the Government has, with the aim at accelerating economic and social development, been engaged in setting up and operating a great number of further enterprises in various forms. By 1975 Malaysia had 82 public enterprises with 65 wholly-owned subsidiaries and 185 joint-ventures. <sup>1/</sup> 10 of the public enterprises were solely dealing with manufacturing. In addition, there were 17 general and regional development corporations which were undertaking various manufacturing activities through their many subsidiaries and joint-ventures.

<sup>1/</sup> The Federal Government owned 45 of the public enterprises with 37 wholly-owned subsidiaries and 93 joint ventures with equity participation ranging from 20% to 80%. In addition there were 37 public enterprises owned by the 13 State Governments with 28 wholly-owned subsidiaries and 92 joint ventures. (Source: Raja Mohd. Affandi bin Raja Halim, Coordination of Public Enterprises: Country Study for Malaysia. Paper prepared for the Asian Centre for Development Administration, Kuala Lumpur, published 1976 in Public Enterprises in Asia: Studies on Coordination and Control, ed. by Abu Sharaf H.K. Sadique).

Table 15: Malaysia: Government finance for public enterprises for (mainly) industrial development purposes in Malaysian Plans (1956 - 1980)

<u>M\$ million (estimated expenditure)</u>	<u>General dev. plan 1956-60</u>	<u>2nd Malayan plan 1961-65</u>	<u>1st Malaysia plan 1966-1970</u>	<u>2nd Malaysia plan 1971 -75</u>	<u>3rd Malaysia plan 1976-80 (allocation)</u>
MIDF	-	24.1	16	100	-
MARA (before 1966: RIDA)	6.8	10.5	123.9	205.3	315
PERNAS	-	-	10	150	200
Contribution to Sumiputra Inves- tment Fund	-	-	-	-	200
PETRONAS	-	-	-	10	-
SEDCs	-	-	2.6	2275	423.8
Industrial Estates	-	-	23.6	25.4	-
Other investment in economic enter- prises (including Bank Pembangunan)	-	-	7.3	235.5	182.6
Feasibility studies	-	-	-	35.9	36.0

Source: Third Malaysia Plan  
Second Malaysia Plan  
Public Enterprise in Asia: Studies on Coordination and Control. Asian Centre for Development Administration, Kuala Lumpur, 1976.

36. The policy (established in the Second Malaysia Plan) vis-à-vis public sector participation in industry means that the Government will initiate industrial ventures and enterprises through institutions such as PERNAS, MARA, and the SEDCs in both urban and rural areas with the aim that such enterprises be turned over to industrial Malay and other indigenous ownership and management as soon as possible. <sup>1/</sup> Direct investment by the Government in industrial activities is intended to

<sup>1/</sup> The aim is that incomes and savings among the Malays and other indigenous people increase and as the enterprises set up by these agencies show sustained profitability, it will be possible for the share capital so accumulated to be sold to individuals among the Malays and other indigenous people.

provide training as well as to ensure that viable economic projects are made available to prospective entrepreneurs from this community.

In addition to contributing to a restructuring of the pattern of ownership in industry the public sector participation is aimed at promoting economic development in the less developed areas of the country and thus help to redress regional economic imbalances. As mentioned earlier a Ministry of Public Enterprises has been established with co-ordinating responsibilities.

37. As noted elsewhere, public sector agencies such as Bank Pambangunan, MARA, Bank Pertanian, MIDF and the Credit Guarantee Corporation (for the commercial bank lending) are playing an active role in providing credit for the establishment and expansion of industries. The Government is also during the Third Plan Period continuing to participate directly in the management and operation as well as through equity participation in manufacturing ventures. The SEDCs, either on their own or in joint-venture with the private sector, have plans for the establishment of 31 new manufacturing projects. PERNAS will also be involved in several major manufacturing projects during the Third Plan.

38. The Third Plan also notes that a major feasibility study is being undertaken for the establishment of a second integrated steel mill in Peninsular Malaysia. The first one, Malayawata, is a joint venture company listed at the stock market with direct Government participation (35%) together with, inter alia, Japanese interests. With its fixed assets of over M\$ 100 million and 1,500 employees it is the largest of the manufacturing enterprises with direct public sector involvement in operation.

39. A survey on the performance of the public sector enterprises in Malaysia published in 1977 by Business Times (Malaysia) indicated that many of the public sector enterprises were operating at a loss (Malayawata being one of the exceptions), and identified several factors which could be considered as causes for the poor performance of the sector. One of the factors was the delays the enterprises were facing in implementing their projects, another factor was cost overruns which often posed severe cash flow problems, resulting in possible disruptions of the investment

plans and increased dependence on high-cost short-term funds. In the main, the performance had resulted from under-utilization, managerial inefficiency and the lack of technical know-how. Many of the enterprises suffering losses had utilized only about 20% or less of their capacity. This under-utilization, it was concluded, was caused either by the small size of the domestic market or the inability of the public enterprise to compete with domestic private enterprises and in export markets. Sometimes the under-utilization had been caused by inadequate or irregular supply of critical raw materials. For instance, an agricultural machinery assembling plant (75% public ownership) in operation since 1970 and basing its production on ~~imported~~ components, had not been able to obtain these components regularly or at competitive prices, partly due to default of the foreign partner.

III. Planning and plan implementation machinery

40. The planning machinery at the federal level comprises the Economic Planning Unit (EPU) and the General Planning and Socio-Economic Research Unit (GPU) in the Prime Minister's Department and planning cells in key agencies such as the Treasury and Bank Negara Malaysia. The Department of Statistics provides the statistical information. The EPU is responsible to the National Development Planning Committee (NDPC) an inter-agency committee comprising civil services heads of all major economic development Ministries. The NDPC in turn reports to the National Economic Council (NCE) - a committee of the Federal Cabinet under the chairmanship of the Prime Minister.

41. Recently a consultative committee - the Private Sector Consultative Committee of the NDPC - comprising the NDPC and members of the private sector has been set up with the objective to provide for continuing inter-action between representatives of the public and private sectors on matters pertaining to the formulation and implementation of policies and programmes for national economic and social development particularly those concerning the private sector.

42. At the State level, the State Planning Units are located within the State Secretariats and work to the State Action Committees under the chairmanship of the respective Chief Ministers. The activities of the Planning Units in the State Governments are in a number of cases supplemented by specially created Federal and/or State regional development authorities established for regional development areas. In addition, during the Third Malaysia Plan period, the Government will establish regional offices of EPU to assist the State Planning Units in the identification and preparation of programmes and projects, in particular those requiring external financing.

43. The Third Malaysia Plan was prepared by the central agencies of the Federal Government, the EPU, the Implementation and Coordination Unit, the



GPU and the Department of Statistics all in the Prime Minister's Department, the Treasury and Bank Negara Malaysia. All Federal Ministries and Departments, State Governments and Statutory Authorities participated in the invitation of plan proposals in respect of their areas of concern and in the deliberations on these proposals, working through specially constituted Inter-Agency Planning Groups under the direction of the NDPC and the NEC. The private sector was also involved in the planning process through its participation in the Private Sector Committee of the NDPC.

44. Plan coordination and implementation is the direct responsibility of executive Ministries, Departments and Agencies at the Federal and State levels. To ensure coordination and implementation at the national and inter-departmental levels an Implementation and Coordination Unit has been established in the Prime Minister's Department.

45. The implementation of the Second Malaysia Plan was accompanied by the creation of a multitude of agencies. In commerce and industry the number of agencies is large with functions extending to the direct operation and management of public enterprises. As these agencies have essential roles to play in national development high priority has been given to their funding in the allocations for development and operating expenditures as well as their requirements for experienced personnel. Specific attention towards improving implementation capacity, operational procedures and inter-Ministry coordination is being paid during the Third Plan. The emergence of a number of public sector enterprises (see para. 35 above) - as instruments for implementing Government's policies for eradicating poverty and restructuring society - is recognized in the Third Plan as calling for special efforts to meet their specialized personnel requirements and to develop their organization, management and supervision capabilities. The development of corporate management skills within public enterprises is of paramount importance. A Ministry of Public Enterprises has been established to ensure efficient coordination.

46. It should finally be noted that with the 1979 budget a new format was adopted which has significant implications for Malaysian economic planning. The new format is the result of an integrated approach to all aspects of economic performance and constitutes in effect an annual economic plan. The budget speech and the accompanying economic report dealt not only with the traditional issues of fiscal management, but touched on broad policy perspectives and issues.

IV. The institutional infrastructure for industry

47. While even during the Third Malaysia Plan 1976-1980 the private sector is to continue to be of major importance for the development of the manufacturing sector, the public sector through its various agencies will also be actively involved. FIDA (Federal Industrial Development Authority) which was established 1967 under the Ministry of Commerce and Industry, provides the machinery for the promotion and coordination of industrial development in the country. It shares with the Economic Planning Unit (EPU) of the Prime Minister's Office, the principal responsibility for planning the nation's overall approach to industrial development within the context of NEP.

FIDA's main tasks are those of attracting investment from both foreign and local sources, particularly in labour-intensive, resource-based, export-oriented and high technology industries. At the same time, FIDA is assisting investors in speeding up the implementation of their projects. It is also working closely with the State Governments to ensure proper coordination of industrial development and the development of industrial estates. FIDA has established regional centres in several States - Sabah, Sarawak, Pahang, Kedah and Kelantan.

48. During the Third Plan period FIDA will continue to emphasize greater participation of the Malays and other indigenous people in new industries and will continue to carry out industrial surveys to identify new investment opportunities, and to conduct feasibility studies as well as pursue the policy of dispersal of industries (UNIDO/UNDP assistance was provided 1973-1977 to FIDA in project identification and preparation of pre-feasibility and feasibility studies. UNIDO also assisted in the preparation in 1971/72 of regional industrial potentiality surveys in the States of Sarawak, Trengganu and Kelantan).

49. As part of its efforts in attracting foreign investment, FIDA has established promotion offices overseas - in New York, San Francisco, Düsseldorf, London and Tokyo. During the last few years several high level investment promotion missions have visited Europe, North America, Australia, India, Japan and Hong Kong. Malaysia has also taken active part in various investment conferences (including several such sponsored by UNIDO).<sup>1/</sup> One specific example is the EEC/ASEAN Investment Conference held in Brussels in April 1977. A second similar conference is to be held in Jakarta in February 1979. To spearhead the Government's efforts in

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<sup>1/</sup> 40 potential industrial investment projects are registered with the Investment Co-operative Programme Office of UNIDO (as of list issued October 1978).

the coordinated promotion of foreign trade and investment the Committee of Officials on Foreign Trade and Investment (COFTI) was established in 1972. The Committee formulated policies on trade, investment and tourism and also considers and develops programmes for the intensification of export development, investment and tourism promotion measures.

50. The main sources of medium and long-term industrial credit are the Malaysian Industrial Development Finance Berhad (MIDF) and its affiliates, the Borneo Development Corporation (active in Sabah and Sarawak), the Sabah Credit Corporation, the commercial banks through term-loan facilities, and borrowing companies. In addition, equity and loan finance for bumiputra enterprises is provided through several agencies (see para. 115-6 below). MIDF was established in 1960 under the Companies Act with the support of the Government to provide long-term finance for manufacturing industries in the country. Its present shareholders include the Bank Negara Malaysia (Central Bank of Malaysia), the IFC of the World Bank, and a number of commercial banks and other financing institutions. Apart from its own loan operations, MIDF is also providing financial assistance to large-scale industries by participating with the commercial banks in extending loans on consortium basis. In the securities market MIDF provides underwriting and share issuing facilities. A wholly-owned subsidiary, the MIDF Industrial Consultants Sendirian Berhad (MIDFIC) provides consultancy services to small and medium scale industries. MIDFIC was established in 1971 with ILO assistance. Another subsidiary is the Malaysian Industrial Estate Sendirian Berhad (MIEL) (see para. 107 below).

51. In the promotion of industrial development, priority is being given in the Third Plan, to raw-material based industries including food, rubber, wood and palm oil products. In the endeavour to extend the end-uses of these raw materials, the research activities of agencies such as MARDI (Malaysian Agricultural Research and Development Institute), SIRIM (Standards and Industrial Research Institute of Malaysia), FRI (Forest Research Institute) and RRIM (Rubber Research Institute of Malaysia) are given special attention. For instance, within RRIM a Rubber Technology Centre has been established to spearhead a wider range of end-uses of natural rubber in the manufacture of rubber products. Such research into end-uses of rubber and rubber wood is carried

out in cooperation with the Malaysian Rubber Producers Research Association (MRPRA) and under the general guidance of the Malaysian Rubber Research and Development Board (MRRDB). The establishment of a palm oil research institute has recently been announced. Besides doing research aiming at improved replanting methods, it will investigate new uses of palm oil. It is expected to be financed (like RRIM) through a research cess of 1 cent per pound palm oil produced. The main task of FRI (Forest Research Institute) is to further develop the use of Malaysian timber as well as fibre by-products of plantation crops for pulping.

52. SIRIM was formed in 1975 and comprises a Science and Industrial Research Division (formerly known as NISIR - National Institute for Scientific and Industrial Research - to which UNIDO/UNDP large-scale assistance was extended 1970-1974) and a Standards Division (formerly known as SIM - Standards Institution of Malaysia). While the Research Division, as indicated in previous paragraph, during the Third Plan period will intensify its research activities aimed at the domestic application of a wide range of proven industrial technology for the manufacture of resource-based products, the main objectives of the Standards Division are to develop and promote national standards as well as to promote the use of such standards through the Certification Marking Scheme.

53. Responsibility for pollution control is with the Ministry of Science, Technology and Environment. The Government is currently preparing anti-pollution regulations within the framework of the 1974 Environmental Quality Act. Three sets of regulations have been prepared for coming in force in 1978: Industrial Effluent Regulations, Rubber Effluent Regulations and Clean Air Regulations. The Government is also working on a long-term plan - tentatively called the Environmental Impact Assessment Plan - to coordinate all national pollution control activities. It hopes to implement it under the Fourth Malaysia Plan 1981-1985.

54. In the development of skills required for the industrialization process the Industrial Training Institutes, MARA's Vocational Institutes, the National Youth Pioneer Corps, the National Productivity Centre (NPC) as well as universities, colleges and the vocational schools of the Ministry of Education play an important role. The private sector is complementing the efforts of Government in the training of skilled manpower. Integration of the various training efforts will be promoted through the establishment in late 1978 of the Manpower Development Board (MDB) with representation from the Government, employers and workers. The Board will act as a coordinating body for all national training programmes and policies. It will operate out of the Prime Minister's Office and will have representatives from various government departments and ministries (including the ministries of education; youth, culture, and sports; labour and manpower; and defense), the Malaysian Consultative Employer's Organization, and the Malaysian Trade Union Congress. At present, five ministries or government organizations are responsible for planning training programmes. Due to lack of coordination between the various bodies, training programmes have on many occasions either been duplicated or overlooked. Since all government departments involved in manpower training will now be represented on the MDB, this confusion may be minimized. One of the first projects the MDB will undertake is a feasibility study to determine whether or not a tax should be levied on companies operating in Malaysia that do not train personnel. The MDB will not place particular emphasis on training bumiputras. Its programme will be designed to fill the overall needs of industry. A major problem the government faces in trying to set up training programmes is a shortage of qualified instructors. This is due mainly to the better salaries offered by the private sector than by government educational institutions.

55. A Metal Industries Research and Development Centre (MIRDC) is being established with UNIDO/UNDP large-scale assistance. The main objective of MIRDC is to ensure that the foundry and metal working industries are able to supply the local market with quality products such as castings, dies and moulds, tools, jigs and fixtures, thereby raising technological and operational efficiency of existing and new establishments (see further para. 142 below).

56. In the Third Plan period special attention will also be given to encouragement of an assistance to the development of small-scale industry. The Advisory Council on Consultancy and Advisory Services for Small-scale Industries and Businesses will be strengthened to become the Co-ordinating Council for the Development of Small-scale Industries. The Council will be responsible for co-ordinating and harmonizing programmes and policies of existing institutions over the whole range of services to small-scale industries. In servicing the Council, FIDA as the secretariat will act as contact point between the private sector and government and will be responsible for the formulation of measures for the effective development of small-scale industries and the identification of appropriate projects, including the feasibility of sub-contracting arrangements between small-scale and larger industries.

57. Malaysia has since 1952 when the first industrial estate, Petaling Jaya outside Kuala Lumpur, was constructed, built up progressively a string of industrial estates throughout the country. The industrial estates programme has been highly successful as an effective tool to attract industries and promote employment and, perhaps with a somewhat more limited effect, as a device to equalize regional development. The success of the programme cannot be attributed to any single factor. The liberal system of incentives, the provision of prepared plots ready to receive factories (or with advance constructed factory buildings by MIEL <sup>1/</sup>), the implementation of the development policy by a series of autonomous corporations subject only to over-all control of a technical nature of FIDA, and the economy in the design of the estates have all played an important part. <sup>2/</sup>

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<sup>1/</sup> MIEL (Malaysian Industrial Estates Ltd.) a wholly owned subsidiary of MIDF (Malaysian Industrial Development Finance Bhd) constructs both custom-built and standard advance factories on industrial estates. In the 14 years it has been operating it has built 400 factories.

<sup>2/</sup> For a more detailed analysis reference is made to A. Neilson, "Evaluation Report on Industrial Estates - Malaysia", prepared for the UNIDO Export Group Meeting on Evaluation of the Effectiveness of Industrial Estates in Developing Countries, Vienna, 13 - 16 December 1976 (document no. ID/WG.231/8).

58. As of the end of 1976 the Government operated 59 industrial estates, including free-trade zones <sup>1/</sup>. The total area of factory plots was 9,240 acres of which 6,765 had been leased. It has been roughly estimated that industries in the industrial estates in Peninsular Malaysia provide employment for about 175,000 workers or 88% of the labour force in manufacturing. Of the 59 Government industrial estates 41 are situated on the western side of the Peninsula, 8 on the eastern side and 10 in East Malaysia. The acreage in each State is as follows:

Selangor	2,029	Kedah	445
Penang	1,603	Sabah	348
Johor	1,307	Negri Sembilan	290
Perak	1,095	Trengganu	50
Sarawak	843	Kelantan	20
Pahang	576	Perlis	-
Malacca	554		

59. The acreage distribution reflects the relative levels of economic development of the various states. The industrial estates have by and large been established in the areas close to already relatively well developed economic infrastructure. In the Third Plan it is foreseen, however, that 25% of the new acreage of 9,500 to be developed during this Plan period, will be developed in the less industrially advanced states of Kelantan, Trengganu, Kedah, Sabah and Sarawak.

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<sup>1/</sup> In addition there are at least five industrial estates constructed on a private enterprise basis, including some constructed by MIEL.

V. Recent performance of the manufacturing sector and planned industrial development targets

(a) Recent performance of production and exports

60. The manufacturing sector was the fastest growing sector during the First as well as the Second Malaysia Plan periods. The share of the manufacturing sector in GDP rose from 12.2 per cent in 1970 to 14.4 percent in 1975. In real terms value added by the sector rose at an average annual rate of 10.9 percent compared with the Plan target of 11.7 percent. The shortfall was largely attributable to stagnation during the 1975 recession, the average annual growth during 1972-1974 being in excess of 16 percent.

61. The expansion of the manufacturing sector during the Second Plan period was the result of efforts by export-oriented industries (accounting for 61.2 percent of the growth in value added of the manufacturing sector) as well as other growth industries, including palm oil processing, wood processing, textiles, clothing and footwear, rubber products and plastics and electrical machinery, particularly electronics.

62. The production performance of the manufacturing sector during 1976 and 1977 continued to be quite satisfying, and its share in the total GDP rose to 15.1 percent in 1976 and 15.8 percent in 1977. Measured by the index of manufacturing production for Peninsular Malaysia (1968 = 100), manufacturing output rose by nearly 19 percent in 1976 compared with stagnation experienced in the previous year. The growth continued in 1977, and 1978 the increase being about 12 percent each year over the level of previous year. Strongest gains were achieved in 1976 by the export-oriented industries, especially textiles, wood products, paper and paper products and petroleum products, while in 1977 and 1978 the most substantial increase were noted in metal products, cement, transport equipment and electronics and electrical machinery and appliances. The major growth areas in 1979 are expected to be food processing, metal products, electronics and petroleum products.

63. Information gathered from opinion surveys conducted by the Central Bank in July and in December 1977 <sup>1/</sup> indicated that the overall performance of the manufacturing sector in 1977 was not, however, as buoyant as

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<sup>1/</sup> Ref. Bank Negara Malaysia Annual Report 1977.



Table 16: Malaysia: Exports of manufactures  
1976 and 1977

	<u>1977 prel.</u>		<u>1976</u>	<u>1977 prel.</u>
	<u>M \$ million</u>	<u>%</u>	<u>Change in percent</u>	
Food	256.2	10.3	18.7	- 0.2
Canned pineapple	64.0	2.6	22.3	4.0
Animal feeding stuff	47.4	1.9	-19.6	58.0
Other	144.8	5.8	28.4	- 12.3
Beverages and tobacco	13.2	0.5	16.0	13.7
Textiles and footwear	323.7	13.0	44.9	6.7
Cotton fabrics	64.7	2.6	57.5	- 11.9
Clothing	151.5	6.1	43.5	7.7
Footwear	38.4	1.5	5.8	4.6
Other	69.1	2.8	75.3	31.3
Wood products	311.0	12.5	59.3	- 4.3
Veneer	30.1	1.2	35.1	30.3
Plywood	162.1	5.5	94.7	- 14.1
Chipwood	24.7	1.0	-23.0	- 9.9
Wooden mouldings	57.0	2.3	74.5	9.6
Other	37.1	1.5	37.0	10.0
Rubber	50.3	2.0	8.6	10.0
Chemical	65.5	2.7	-10.2	13.1
Petroleum	107.6	4.3	42.4	- 27.9
Non-Metallic mineral	27.5	1.1	30.2	- 1.8
Iron and steel	16.0	0.7	-	32.2
Manufactures of metal	39.5	1.6	19.3	20.4
Machinery	823.6	33.1	28.5	46.7
Transport equipment	4.6	0.2	-76.3	2.2
Other	447.6	18.0	15.0	- 8.0
<b>Total net exports</b>	<b>2,486.3</b>	<b>100.0</b>	<b>27.0</b>	<b>9.3</b>
<b>Re-exports</b>	<b>323.7</b>		<b>28.3</b>	<b>13.5</b>
<b>Total gross exports</b>	<b>2,810.0</b>		<b>27.2</b>	<b>9.8</b>

Source: Department of Statistics, Kuala Lumpur

expected. Although output and sales generally increased, there appeared to have been no significant change in the level of capacity utilization. At the end of 1977, 52 per cent of the firms surveyed were operating at 51 - 80 per cent capacity and 43 per cent operating at 81 - 100 per cent capacity. There was, however, a modest increase in the number of firms operating at and above the break-even point. A significant percentage of the firms reported an increase in the cost of production in 1977, mainly as a result of rising costs of materials, although higher labour costs were also a contributory factor. Since a smaller number of those firms which experienced rising costs of production reported an increase in their selling prices, there was a reported decline in the overall rate of profitability. A significant majority of the firms surveyed expected, however, a positive improvement in the business situation in 1978.

64. Performance of the different industries within the manufacturing sector in 1977 was mixed. Activities of the metal products, transport equipment, electrical machinery, appliances and supplies industries rose strongly and accounted for the bulk of manufacturing growth, which was moderated by a decline in textile production.

65. The performance of the textile industry in 1977 was adversely affected by keen overseas competition, which led to dumping practices by certain exporters, and increasing protectionism in some of the major consuming countries. As a result, output of textiles fell by 3.2 per cent in 1977, compared with an increase of 41.4 per cent in 1976. To ensure its long-term viability, the textile industry approached the Government for assistance during the year through the Malaysian Textiles Manufacturers Association.

66. Apart from textiles, output in other industries generally rose during 1977 although in most cases there had been a slowdown in the rate of growth. Largely as a result of a slackening in overseas building and construction activity, the wood and wood products industry recorded an output growth of only 6.7 per cent, compared with an increase of 39.4 per cent in 1976, with the principal wood items such as plywood, veneer, chipwood and wooden mouldings experiencing a fall in their production. Output of plywood, a major item in the industry, fell by 1.5 per cent in 1977, compared with an increase of 42.5 per cent in 1976.

67. Output growth in the food manufacturing industry, comprising mainly food and dairy products, canned pineapple, pineapple juice and prepared animal feeds, slowed down markedly to 2 per cent in 1977, compared with an increase of 14.9 per cent in 1976. The slowdown reflected the interaction of increases in the output of pineapple juice and prepared animal feeds, which were largely offset by a decline in the production of most other items, particularly dairy products.

68. Output in the chemical and chemical products industry rose by 5.1 per cent in 1977, compared with 14 per cent in 1976. The continuing expansion of production was due mainly to the increase in the output of paints, varnishes and laquers. Output of chemical fertilizers rose by less than one per cent during the year, compared with an increase of 12.6 per cent in 1976.

69. The output performance of industries producing construction materials showed a mixed picture. For the metal products industry as a whole, output rose by 31.8 per cent in 1977, compared with an increase of 11.8 per cent in 1976. Within this industry, production of bars and rods for reinforced concrete fell by 8.5 per cent while production of structural shapes and complete steel structures increased by 6 per cent in 1977. Output of the basic metals industry also increased but by much higher rate than in 1976, rising by 14.4 per cent in 1977, compared with 6.5 per cent in the previous year. The increase was due mainly to an increase in the output of iron and steel basic shapes. Output in the non-metallic minerals industry, comprising mainly cement and cement products, increased by 4 per cent in 1977, compared with an increase of 17.5 per cent in 1976.

70. Output growth in the transport equipment industry, comprising mainly the assembly of passenger cars and commercial vehicles, rose by 19.1 per cent in 1977 after virtually stagnating in 1976. Despite increases in the price of passenger cars, their demand continued to be buoyant. Reflecting the increase in the output of motor vehicles, production of rubber products, comprising mainly tyres and tubes, increased by 10.9 per cent in 1977 compared with 13 per cent in 1976.

71. During 1977 output of electrical machinery appliances and supplies rose by 41.3 per cent, while that of processed agricultural products in

factories outside of estates expanded by 17.3 per cent. Production of other major manufactured goods, such as beverages, tobacco products, and the output of pioneer companies as a whole, which covered a wide range of products, were also higher than in 1976 although the rate of growth slowed down during the year.

(b) Planned development and structural changes

72. During the Third Malaysia Plan period, 1976-1980 and beyond, the manufacturing sector is expected to continue to be the fastest growing sector in the economy. With value added growing by about 12.7 percent per annum during 1976-1990 (compared with 10.9% during 1971-1975), the manufacturing sector will contribute 31.5% to the total increase of GDP during the period and become, by 1990 the largest sector in the economy.

73. A number of factors support the potential for such substantial growth in manufacturing. Firstly, the relatively sizeable natural and human resources of the country provide wide scope for industrial development based on the labour and raw material resources of the economy. Secondly, the growth of private disposable income will create strong demands for a widening range of manufactured consumer goods. Thirdly, the progressive enlargement of the industrial base will permit the manufacture, on a viable basis, of a range of intermediate and capital goods.

74. The labour-intensive textiles and electronic industries accounted significantly for the momentum of growth of the manufacturing sector during the Second Malaysia Plan period 1971-1975. Continued growth is envisaged as, for instance, the electronics industry broadens to produce more complex sub-assemblies and finished products. A new set of industries is also emerging in the field of petro-chemicals.

75. In addition, the metal working industries will grow rapidly in importance as industrialization advances. The strong growth of capital goods industries in the recent past combined with the increasing growth in domestic demand has led the planners to suggest an annual growth of 15% for that sector up to 1990. The principal constraint will be the availability of the requisite skilled manpower at all levels. Present capabilities in casting, forging, and machining are fairly limited (see para. 137 below). The fuller exploitation of the potential for economic manufacture of capital goods will thus clearly require special efforts in education and vocational training in the field of industrial engineering.

76. The targetted expansion of industrial output, as illustrated in Table 17, will bring about striking changes in the structure of Malaysia's manufacturing sector. As shown in Table 18, the manufacture of investment goods will become more important than it is now, while the relative importance of many intermediate products will successively be reduced. In the process the industrial base will be gradually broadened. Even more important, the vertical integration that will be effected will make growth in the different parts of the industrial sector mutually reinforcing.

Table 17: Peninsular Malaysia: Growth of manufacturing industry 1/ 1970 - 1990

(Value added growth per annum in percentages)

	<u>1971-75</u>	<u>1976-80</u>	<u>1981-90</u>	<u>1976-90</u>	<u>1971-90</u>
Consumer products	11.8	12.9	9.9	10.9	11.1
Food	11.5	12.5	8.8	10.0	10.4
Textiles and clothing	14.5	12.3	15.0	15.4	15.2
Intermediate products	9.0	10.8	10.6	10.7	10.3
Wood and paper products	9.2	10.2	8.5	9.1	9.1
Chemical and rubber products	9.1	10.9	10.6	10.7	10.3
Basic metals and non-metallic products	8.9	11.2	11.9	11.7	11.0
Investment products	15.2	14.7	14.7	14.7	14.8
Machinery and equipment	14.2	15.0	15.0	15.0	14.8
Other manufacturing products	19.3	13.9	13.3	13.5	14.9
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
T o t a l	11.0	12.3	10.9	11.4	11.3

1/ Excludes the potential growth of the petro-chemical and petro-chemical products industries now under study as part of the preparation of the oil and natural gas masterplan study.

Table 18: Peninsular Malaysia: Composition of  
manufacturing industry, 1975-1990  
(% share)

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1990</u>
Consumer products	35.6	39.8	42.6	38.6
Processed food	3.8	3.1	2.8	2.7
Oils and fats	6.6	12.6	15.4	9.7
Other food	16.9	14.6	13.6	12.8
Beverages and tobacco	5.3	5.3	5.1	4.6
Textiles and clothing	2.5	3.8	5.3	8.4
Leather and footwear	0.5	0.4	0.4	0.4
Intermediate products	56.5	49.3	43.9	40.9
Sawmills and furniture	5.4	5.7	5.4	4.3
Paper and printing	2.3	2.4	2.6	3.0
Industrial chemical and fertiliser	1.5	1.6	1.9	2.8
Chemical products	2.8	4.0	4.3	5.0
Petroleum refininf and products <sup>1/</sup>	2.6	2.0	2.0	2.1
Rubber processing	20.1	15.2	11.7	6.7
Rubber products	1.8	1.8	1.8	1.7
Cement	1.1	1.2	1.1	1.0
Non-metallic products	1.2	1.2	1.2	1.3
Ferrous products	4.0	4.3	4.7	6.7
Non-ferrous products	13.7	9.9	7.2	6.3
Investment products	7.9	10.9	13.5	20.5
Industrial machinery	1.5	1.9	2.2	4.0
Electrical machinery	1.3	2.4	3.7	5.3
Transport equipment	4.0	4.7	5.4	8.2
Other manufacturing products	1.1	1.9	2.2	3.0
T o t a l	100.0	100.0	100.0	100.0

<sup>1/</sup> Excludes the potential contribution of the petro-chemical and petrochemical products industries.

Source: Third Malaysia Plan

(c) Sources of growth

77. The impact which projected changes up to 1990 in the composition of aggregate demand and import substitution will have on the growth of the various production sectors in the economy is illustrated in Tables 19 and 20.

Table 19: Peninsular Malaysia: Sources of growth  
by sector 1/ 1970 - 1990 (%)

	<u>Import substitu- tion</u>	<u>Private consumption</u>	<u>Private inves- tment</u>	<u>Public expen- diture</u>	<u>Exports</u>
Agriculture	14.5	41.6	7.8	3.5	41.8
Mining	50.6	29.8	19.9	33.0	9.9
Manufacturing	22.3	20.2	5.0	6.9	37.4
Food .	11.6	25.3	0.4	0.8	49.2
Textiles and clothing	34.7	24.1	0.5	1.2	30.0
Wood and paper products	14.1	22.7	8.2	17.0	34.7
Chemical and rubber products	17.9	20.4	2.3	4.1	53.7
Basic metals and non-metallic products	25.0	10.9	11.4	22.3	11.0
Machinery and equipment	42.0	11.3	14.1	9.3	21.6
Other manufacturing products	31.4	31.6	3.1	5.6	25.9

1/ Excludes technological change and stocks.

Source: Third Malaysia Plan

78. As can be seen from Table 20 the role of exports in the attainment of the overall growth of the Outline Perspective Plan for the period 1970-1990 is critical in regard to the manufacturing sector, as exports are to account for 37.4% of the growth of value added in that sector. The targetted sources of growth in the various branches of manufacturing are also shown in Table 20.

Table 20: Peninsular Malaysia: Sources of growth in the manufacturing sector, 1970-1990  
(%)

	<u>Import substitution</u>	<u>Private consumption</u>	<u>Private investment</u>	<u>Public expenditure</u>	<u>Exports</u>
Processed food	14.3	29.8	0.4	1.2	32.7
Oils and fats	5.1	7.5	0.2	0.3	85.6
Other food	15.8	38.4	0.7	1.6	14.9
Beverages and tobacco	21.1	49.6	0.6	0.5	21.0
Textile and clothing	36.3	20.9	0.5	1.2	31.0
Leather and footwear	11.1	70.7	0	0.4	16.8
Sawmills and furniture	3.5	12.0	11.7	23.0	45.5
Paper and printing	28.0	36.8	3.6	9.0	20.5
Industrial chemicals and fertilizers	42.0	14.5	4.0	3.1	32.0
Chemical products	22.0	36.0	2.8	7.5	28.0
Petroleum refining	27.3	48.7	4.0	9.7	8.0
Rubber processing	3.0	2.8	0.3	0.4	93.8
Rubber products	13.5	44.6	4.4	7.0	30.7
Cement	4.3	8.6	22.5	54.7	0.8
Non-metallic products	22.3	20.4	13.4	32.3	12.3
Ferrous products	36.9	11.2	11.1	18.2	15.2
Non-ferrous products	7.6	4.1	2.3	2.6	5.4
Industrial machinery	48.7	3.0	16.4	10.4	20.0
Electrical machinery	29.5	13.0	9.2	6.6	40.9
Transport equipment	40.8	23.3	14.2	9.5	9.3
Other manufacturing products	31.4	31.6	5.1	5.6	25.9
T o t a l	22.3	20.2	5.0	6.9	37.4

1/ Excludes technological change and stocks

Source: Third Malaysia Plan

79. The impact of agricultural modernization and industrial development in building a more integrated economic structure within the country will be significant during the 1976-1990 period. Table 21 indicates the changes which can be expected in Peninsular Malaysia in the demand for intermediate and final use of total supplies (domestic production and imports).

80. In the case of all 13 sectors into which the economy has been divided, the share of domestically produced goods and services for intermediate use by other industries will increase the growing interdependence of industries in the economy. The role being played by



agriculture , forestry, fishing and mining in the supply of raw materials will steadily increase and, in addition, the textiles, wood and paper products, chemical and rubber products and non-metallic and basic metal industries are expected to contribute substantially towards meeting the needs of other industries for intermediate goods in the production process.

81. Accordingly, the share of imports in total supplies is envisaged to fall in almost all industries. On the basis of recent trends, import substitution should enable imports as a ratio of total supplies to decline markedly in a number of important industries: food products, textiles and machinery and equipment. Overall, the share of imports in total supplies is estimated to fall from 16.6% in 1970 and 13.8% in 1975 to 12.1% by 1990. Thus, opportunities for import substitution can continue to be actively pursued, not the least in respect of a number of intermediate materials and capital goods which are currently imported.

Table 21: Peninsular Malaysia: Share of total supply going to final and intermediate demands, 1970-1990 (%)

Sector	Intermediate demand						Final demand						Total supply														
	1970			1980			1990			1970			1980			1990			1970			1980			1990		
	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total			
Agriculture	58.5	62.8	66.3	65.3	35.2	30.4	28.6	28.8	6.3	6.8	5.1	5.9	41.5	37.2	33.7	34.7	92.0	96.1	96.6	96.7	6.0	3.9	3.4	3.3			
Mining	86.7	98.9	98.5	96.4	1.2	-2.0	-1.0	2.3	12.1	3.3	2.5	1.3	133.1	1.3	1.5	3.6	82.2	81.1	78.0	69.0	17.8	18.9	22.0	11.0			
Food	25.3	24.5	25.5	29.6	58.5	45.8	37.3	36.2	16.2	29.7	37.2	34.2	74.7	75.5	74.5	70.4	81.3	86.6	89.7	92.7	18.7	13.4	10.3	7.3			
Textiles and clothing	26.5	33.4	38.3	43.8	63.4	49.1	39.3	27.6	10.1	17.5	22.4	28.6	73.5	66.6	61.7	56.2	50.1	61.4	69.9	81.4	49.9	38.6	30.1	18.6			
Wood and paper products	52.6	55.6	56.9	61.9	14.4	9.1	10.2	13.2	33.0	35.3	32.9	24.9	47.4	44.4	43.1	38.1	80.8	84.7	85.5	86.2	19.2	15.3	14.5	13.8			
Chemical and rubber products	25.2	30.4	34.8	41.7	16.3	13.8	15.3	19.3	58.5	55.8	49.9	39.0	74.8	69.6	65.2	58.3	82.7	84.4	83.0	84.2	17.3	15.6	17.0	15.8			
Basic metals and non-metallic products	35.4	54.0	63.4	76.7	9.6	3.3	5.3	7.6	55.0	42.7	31.3	15.7	64.6	46.0	46.6	23.3	77.2	79.8	79.2	84.0	22.8	20.2	20.8	16.0			
Machinery and equipment	35.7	35.9	35.0	37.1	58.2	52.1	44.8	38.7	6.1	12.0	20.2	24.2	64.3	64.1	65.0	62.9	34.4	40.5	44.2	58.5	65.6	59.2	55.8	41.5			
Other manufacturing products	25.1	33.9	33.9	35.2	68.3	60.1	55.2	42.5	6.6	8.5	10.9	22.3	74.9	68.6	66.1	64.8	48.7	70.6	79.6	91.3	51.3	29.4	20.4	8.7			
Utilities and transport	49.3	55.6	55.6	56.4	43.7	36.2	36.2	35.8	7.0	8.2	8.2	7.8	50.7	44.4	44.4	43.6	91.7	94.7	95.9	97.0	8.3	5.3	4.1	3.0			
Construction	34.4	33.4	33.4	33.5	65.4	69.4	66.4	66.3	0.2	0.2	0.2	0.2	65.6	69.6	66.6	66.5	98.7	98.7	98.7	98.7	1.3	1.3	1.3	1.3			
Trade	30.6	33.0	34.5	38.2	59.4	55.3	53.9	50.9	10.0	11.7	11.6	10.9	69.4	67.0	65.5	61.8	99.6	99.6	99.6	99.6	0.4	0.4	0.4	0.4			
Services	17.0	15.7	16.7	17.1	82.4	83.6	82.7	82.4	0.6	0.7	0.6	0.5	83.0	84.3	83.3	82.9	95.7	96.3	96.5	96.7	4.3	3.7	3.5	3.3			
<b>Total</b>	<b>43.1</b>	<b>47.0</b>	<b>47.8</b>	<b>50.5</b>	<b>38.1</b>	<b>34.2</b>	<b>33.0</b>	<b>32.4</b>	<b>18.8</b>	<b>18.8</b>	<b>18.8</b>	<b>17.1</b>	<b>56.9</b>	<b>53.0</b>	<b>52.2</b>	<b>49.5</b>	<b>83.4</b>	<b>86.2</b>	<b>86.2</b>	<b>87.9</b>	<b>16.6</b>	<b>13.8</b>	<b>13.8</b>	<b>12.1</b>			

Source: Third Malaysia Plan

VI. Main features of Malaysia's industrial development strategy  
- policy measures and programming of implementation

(i) Investment incentives and promotional measures

82. The country's early industrialization strategies based on import substitution were reflected in the Pioneer Industries Ordinance of 1958. In the initial stage the focus was primarily upon consumer goods, largely because the domestic market was then oriented towards such goods and the cost disadvantage between domestically produced and imported goods was presumably less for consumer goods than for intermediate and investment goods. It was the First Malaysia Plan, 1965-1970, which laid stress on the need to extend industrialization in the backward direction especially towards intermediate goods.

83. A radical departure from the inward-looking industrialization strategy of import substitution to the outward-looking strategy of export promotion took place in the last years of 1960s as it became fairly clear that import substitution could no longer provide viable basis for sustained industrial expansion largely due to the smallness of the domestic market. Greater emphasis was placed on labour-intensive production processes, use of domestic raw materials and geographical dispersal of industries. Thus, under the Investment Incentives Act of 1968, which superseded the Pioneer Industries Ordinance, specific incentives were offered for industries producing products embodying 50% local raw materials and which operated in less developed areas. The Investment Incentives (Amendment Act) introduced in 1971 offers tax exemption on the number of workers employed (labour utilization relief).<sup>1/</sup> The perhaps most important incentive has, however, been provided by tariff protection which grew rather haphazardly and steeply. Recently the Government carried out a comprehensive review of the structure of effective protection<sup>2/</sup>; the criteria for tariff-setting up to then having amounted to giving what protection was judged necessary for financial viability on a case-by-case basis and, as one observer put it, only the general philosophy of the Government and the good sense of tariff administrators kept protection from being more extreme.

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<sup>1/</sup> An interesting analysis of the various incentives and their effect in particular in stimulating employment is given by the World Bank economist in an article "Some thoughts on protection and fiscal incentives to encourage industry and industrial employment in Peninsular Malaysia" in the UMBC Economic Review No. 1, 1978, published by the United Malaysian Banking Corp. Bhd.

<sup>2/</sup> The study on effective protection, carried out by the Economic Planning Unit (EPU) underlined the distortions created by differing levels of effective protection within the economy and between manufacturing industries; it suggested that in the future the Government should grant effective protection for new industries within a band of 20-50% and also attempt to bring existing highly protected industries within the same range. According to the study, 17 of 53 manufacturing branches enjoyed effective rates of protection in excess of 50%.

84. The corporate tax structure is development-oriented, its main features being as follows:

- corporate tax rate: 45% (including 5% development tax);
- Excess profit tax: 5% on income exceeding 25% of share holders' capital;
- dividend tax on payment to foreign stockholder: none;
- tax on interest: 15%, but zero in respect of approved development loan;
- tax on royalties: 15%;
- normal depreciation allowance: industrial buildings, 10% first year and 2% per year on a straight-line basis thereafter; machinery, 20% first year, 5-25% off declining balance thereafter; manufacturing plant, 7.5%-10%;
- loss carry forward: 7 years;
- an accelerated depreciation allowance introduced in the 1978 budget has been replaced in the 1979 budget by a re-investment allowance of up to 25% of machinery and plant expansion programmes. This provision, in effect re-investment tax credit, is directed at existing manufacturing and processing industries - primarily small- and medium sized firms - which do not qualify for other forms of incentives;
- special incentives, including a 12-year tax holiday, to the shipping and shipbuilding industry (announced in the 1979 budget).

85. The private sector is envisaged to play a major role in generating growth and employment in manufacturing under the Third Malaysia Plan, 1976 - 1980, which projects a total investment of M\$ 44,200 million whereof M\$ 26,800 million (or 60%) from the private sector. The total investment potential of the 425 projects approved in 1976 and 400 in 1977 was, however, only about M\$ 1,220 million and M\$ 880 million respectively which was below expectations, the amount of investments capital involved in the projects approved in 1974 and 1975 having been M\$ 1.590 million and M\$ 1,400 million respectively. A distinct improvement was registered during the first half of 1978 as can be seen from Table 20. The total employment potential of the 400 projects approved in 1977 was about 30,000. The new private investment in 1976-1977 was restricted mostly to expansion or to projects started by existing companies.

Table 20: Malaysia: Industrial project approvals 1973-77

	1973	1974	1975	1976	1977	1st half	
						1977	1978
Number of approvals	473	525	461	425	400	162	195
Total capital investment (proposal called-up capital plus loans) M\$ million	1,216	1,590	1,400	1,220	880	261	470
Thereof proposed called-up capital M\$ million	545	729	565	450	358		
Jobs foreseen to be created	81,510	71,378	36,171	32,265	29,632		
Companies given:							
. Pioneer status	179	166	95	105	98		
. Investment tax credit		31	42	76	56		
. Labor utilization relief	58	15	13	7	11		
. Locational incentives		—	10	7	14		
. Other incentives		8	13	7	3		
. No incentives	236	305	288	223	218		
Foreign investment in pioneer companies (M\$ million)	73.8	162.6	191.6	106.7	133.9	39	87

Sources: FIDA Annual Report 1974.  
Bank Negara Malaysia Annual Report 1977  
Asia Research Bulletin, November 1978

86. The investment slowdown stems from several factors, including a world wide slack in investment. Another factor seems to have been the effects on investor confidence of decisions taken in 1975 and 1976 - such as the introduction of the Industrial Coordination Act (ICA) <sup>1/</sup>. As a result of investor hesitation the Government has been faced with a choice between trying to improve the investment climate or itself supplying the investment earmarked in the Third Malaysia Plan for private sector. Its solution has been to do both. Investors confidence has improved, due partly, no doubt, to modifications made in the Industrial Coordination Act. The ICA, in its original form required reference to Government before almost any change of productive capacity, product or employment patterns. The several changes which were introduced in April 1977 include, for instance, the exemption from the provisions of the Act

<sup>1/</sup> The Act came into force on 1 May 1976.

of projects with share holders funds of less than M\$ 250,000 and those employing fewer than 25 full-time employees. Certain activities involving initial stages of processing, for example natural rubber and palm oil, have also been exempted. Another factor is the requirement that, where Malaysian participation is involved, 30% of equity is to be reserved for bumiputras (Malays and other indigenous people). Thus whereas initially all companies were required to have bumiputra participation, the ICA now exempts small companies with less than M \$ 500,000 in fixed assets from the need to comply.

87. An Ad Hoc Cabinet Investment Committee is working since 1977 to look over all the agencies involved with investments with a view to coordinating them and reducing bureaucratic procedures to the bare essentials. The Committee is to pay special attention to the implementation of existing laws and policies and the need for spelling out their interpretation, as that many doubts and uncertainties may be banished. The Committee is headed by the Deputy Prime Minister (and Trade and Industry Minister) Dr. Mahathir Mohamed. Among its member are the Ministers of Finance, Home Affairs, Labour Work and Utilities and Public Enterprises. As result of this review the Industrial Co-ordination (Amendment) Act, 1977 came into force on 1 February 1978. The main features of the amendment include the appointment by the Prime Minister of a licensing officer to implement the Act and provision for appeals to be made to the Minister of Trade and Industry by manufacturers who are aggrieved by any decision of the licensing officer.

88. At the same time (in late 1977) certain organizational changes were put into effect aiming at improving and streamlining the machinery for approving investments. The Action Committee on Incentives, under the chairmanship of the FIDA head, now considers and recommends to the Minister of Trade and Industry not only the approval of projects and appropriate incentives but also the number of expatriate hirings allowed and the duration of time they may be employed. This has reduced the time companies must wait for necessary approvals since it obviates the need to apply to a number of different government agencies. In September 1978 a Central Unit, comprising representatives from various government departments, was set up at FIDA.

Investors now need to apply only to this Unit for the Various licences and permits to operate and for other facilities where previously they had to submit separate applications to the different ministries and departments for approval when investing in an industrial project. The government has assigned a number of senior officials from the Treasury, the Customs and Excise Department, Labour and Manpower Ministries, Immigration Department and the Trade and Industry Ministry to the Unit.

89. In September 1978 Dr. Mahathir Mohamed announced that the Industrial Co-ordination Act will be further reviewed stating that "we are studying certain aspects of the Act, especially its implementation". Amendments are expected to be introduced in parliament in early 1979. <sup>1/</sup>

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<sup>1/</sup> It has been suggested that these amendments may probably include:

- . The setting up of an independent appeals board to hear complaints of "unfair" ministerial decisions. At present, manufacturers can appeal to the Minister of Trade and Industry; his decision is "final and cannot be questioned in any court".
- . Removal of the requirement that a new license be obtained when a product is added or substituted.
- . A reduction in the volume of information required when applying for a license, particularly detailed projections of production, exports, local sales, and profits.
- . An increase in the ceiling of M\$ 250,000 for paid-up capital under which manufacturers are exempted from registering.
- . An increase in the fixed investment ceiling under which companies are exempt from bumiputra equity conditions - at present M\$ 250,000.

(ii) Foreign investment

90. Foreign investment is playing an important role in the development of Malaysia's manufacturing sector <sup>1/</sup> and the promotional efforts of the Government to attract foreign investment have been considerably stepped up during the last few years. Among other measures, the FIDA has, as already mentioned, established overseas centres with offices in New York, San Francisco, London, Düsseldorf and Tokyo. Major investment conferences have been held abroad and in Kuala Lumpur with high level participation by representatives of the Government and business corporations. In 1974 the Foreign Investment Committee was established to ensure the progressive achievement of the ownership target under the NEP.

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<sup>1/</sup> According to a recent FIDA promotional document more than 500 international companies have invested over M \$ 1.000 million in Malaysia, among them multinationals such as:

- from UK: Beecham, Cadburys, Dunlop, Euromedicals, GEC, Guinness, ICI, Multitone, Newey, Shell, Sissons, Unilever
- from Canada: Alcan Aluminium, Chemetics, Colgate-Palmolive, Microsystem International
- from Australia: Amalgamated Chemicals, Bradys, BHP, Rheems, Humes, Nylax
- from Japan: Aji-no-moto, Hitachi, Kawasaki Steel, Matsushita, Minolta Camera, Mitsui, Sankyo Seiki, Sanyo, Sumitomo, Toshiba, Toyota, Yawata Steel
- from US: Ansul, Dow Chemicals, Esso Standard, Goodyear Tyre, Hewlett-Packard, Monsanto, Motorola, National Semiconductor Corporation, RCA, Rockwell Int'l, Texas Instruments, Union Carbide
- from India: Birlas, Chempaka Lakshmi, Godrej, Kirloskar Electric, Tata
- from Switzerland: Nestle, F.E. Zuellig
- from FRG: Lurssen Shipyard, Bosch, Nordwende, Siemen
- from Denmark: Carlsberg Breweries, Dumer
- from France: Peugeot
- from Holland: Phillips
- from Sweden: Volvo
- from Norway: Viking-Askim



91. The inflow of foreign investment has throughout the years been encouraged through rather generous investment incentives.<sup>1</sup> It has been questioned whether such strong incentives which are costly in terms of revenues foregone, were necessary.<sup>2</sup> A clearer differentiation might have been useful between export-oriented industries which may need stronger incentives, and import-substitution industries, enjoying a readily available domestic market and for which a certain tariff protection might be sufficient.

92. Furthermore, it would appear that capital shortage has not been as much of an obstacle to rapid industrialization as the lack of technical know-how. In view of this there is a need to place the emphasis not so much upon the transfer of foreign capital as upon the transfer of technology which foreign investment entails.

93. A third consideration is the apparent contradiction between the NEP's aim at 30% ownership of assets by the Malays and other indigenous people on the one hand and the "open-door" policy towards foreign investment on the other.<sup>3</sup> Under NEP, foreign ownership in the modern

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<sup>1</sup>/ Also guarantees against expropriation and currency inconvertibility have been important factors. Investment guarantee agreements have been signed by Malaysia with Canada, Netherlands, FRG, US, France, and Switzerland and negotiations are being held with UK, Austria, Australia, Sweden, Norway, and Romania. Double taxation agreements are in operation with Japan, Denmark, Norway, Sweden, Singapore, Sri Lanka, Belgium, FRG, India, Canada, Switzerland, France, New Zealand.

<sup>2</sup>/ A recent EPU study, on fiscal incentives, has provided a thoughtful analysis of some weaknesses of the present system, for instance, that tax holidays to certain extent merely benefit those who need them least and that alternative investment incentives, such as Labour Utilization Relief, remain less attractive to investors. The EPU study proposed a new form of incentive, offering tax relief based on the value of investment, and in part on the labour-intensity of investment.

<sup>3</sup>/ The Government has shown preparedness to apply local equity requirements flexibly. For example, of the 190 foreign investment projects approved in 1977, eight were wholly foreign equity. Approval for Albright + Wilson's 100% owned project was given on condition that the equity share be scaled down to 51% by the early 1990s. Advanced Micro Devices was allowed to hold 100% of the equity in its expansion (Business Asia, 8 September 1978).

corporate sector is expected to decline from its present 55% to 30% by 1990; the Malay share being 30% and the remaining 40% for the other Malaysians. But this does not mean that foreign investments will decrease, as (according to the NEP and the Outline Perspective Plan up to 1990) restructuring is to take place in the context of rapid growth, so that in absolute terms the foreign investment by 1990 is expected to be four times bigger than at present.

(iii) Support for exports of manufactures

94. As growth of the manufacturing sector under the Third Malaysia Plan will be increasingly dependent on exports, the Plan document stresses the importance that such industries are efficient and competitive in the world market. To this end the package of incentives for industrial development would be kept under review to ensure that they do not shelter high-cost industries out contrioute towards the growth of industrial efficiency. Furthermore, special incentives<sup>1/</sup> for industries exporting manufactured products have been introduced.--

95. In addition to the usual facilities found in industrial estates, industries sited within the country's several Free Trade Zones (FTZs) enjoy minimum custom formalities and duty free inputs of raw materials, component parts and machinery required directly in the manufacturing process and in export of finished or semi-finished goods. FTZ type of facilities in the form of Licensed Manufacturing Ware Houses (LMW) or Bonded Factories are also available to all export industries regardless of their location. The LMWs are accorded the same customs facilities as factories operation in the FTZs.

96. Electronic assembly firms<sup>2/</sup>, the first in the FTZs, have dominated FTZ exports. They accounted for about 90% of such exports in 1974 (see Table 21). Most of the remainder was clothing. More recently, other industries such as textiles and fibres have also come into production.

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1/ Three types of export incentives for industrial goods can be granted:

(i) Export allowance 5% of export sales increase any given year (8% if product contains 50% or more of domestic materials);

(ii) Accelerated deperiation allowance;

(iii) Deductions for expenses for promotion overseas.

2/ These exports were mostly sub-assemblies such as office machine parts, circuit fittings, and parts for TV and radio. There were also assemblies of air conditioners and electronic calculators. [With large imports of component inputs, the net export earnings of the electronic assembly industry are low compared to gross export earnings, and this should be taken into account in considering Malaysia's recent export performance].

Table 21: Peninsular Malaysia: Exports of non-traditional manufactures 1970-1974

<u>(M\$ million)</u>	<u>1970</u>	<u>1 9 7 4</u>		
		<u>FTZs</u>	<u>Other</u>	<u>Total</u>
SITC 5 Chemicals	36	2	76	74
SITC 6 Semi-manufactures <sup>1/</sup> (except tin concentrate)	146	-	366	366
SITC 7 Machinery and transport equipment	72	247	139	386
SITC 8 Manufactures n.e.c. <sup>2/</sup>	41	219	171	390
	295	468	762	1,220

<sup>1/</sup> Mainly wood products, textile yarn and fabrics

<sup>2/</sup> Mainly instruments and wearing apparels

Source: Dept. of Statistics, Kuala Lumpur

97. The newly established Malaysian Export Credit Insurance Berhad (MECIB), a joint government and private sector company, <sup>1/</sup> will provide Malaysian exporters of locally manufactured products with insurance protection; a form of insurance not at present provided by banks and insurance companies in Malaysia. The scheme provides coverage for commercial, economic and political risks (but does not cover marine hazards).

98. The Central Bank is also undertaking to rediscount bills of exchange from manufacturers at concessionary rates.

(iv) Regional dispersal of industries within Malaysia

99. There are considerable regional inequalities within Malaysia, in terms of income, living standard, infrastructure, etc. Such disparate structure which stems basically from the early patterns of the development process, has obvious political implications in a federal state and a multi-racial society with less developed areas having heavy concentrations of indigenous, or bumiputra, population. The lopsided employment situation

<sup>1/</sup> The share capital was subscribed by the Government (50%), the commercial banks (40%) and the insurance companies (10%).

in manufacturing industry in Peninsular Malaysia is illustrated in Figure 1. An important part of the development strategy, reflected in the development plans, has been to try to stimulate industrial activities in these areas in order to help breaking the vicious circle, it being recognized that lack of adequate infrastructure and related facilities lead to increased costs in the manufacturing production. Thus, manufacturing in so-called less developed areas <sup>1/</sup> is subject to special privileges in the form of longer tax holidays <sup>2/</sup> or additional investment tax credits and general priority for such industries in the awarding of various incentives as provided for the Investment Incentives Act of 1968. Meanwhile, a sizeable proportion of the development expenditure is being devoted to the development of infrastructure such as port facilities, road and rail transportation and telecommunications. <sup>3/</sup>

100. As a result, these less developed areas have become relatively more attractive, and available evidence suggest that an increasingly large number of manufacturing units are being established in these areas. A total number of 1,234 industrial projects located outside industrially developed areas were approved by the Government during

<sup>1/</sup> Designated so called less developed areas, where locational incentives may be granted, are: (1) Kedah (excluding Kuala Muda distr.), (2) Pahang (excluding Kuantan distr.), (3) Kelantan, (4) Trengganu, (5) Perlis, (6) Sabah, (7) Sarawak, (8) Johore Trenggara Area.

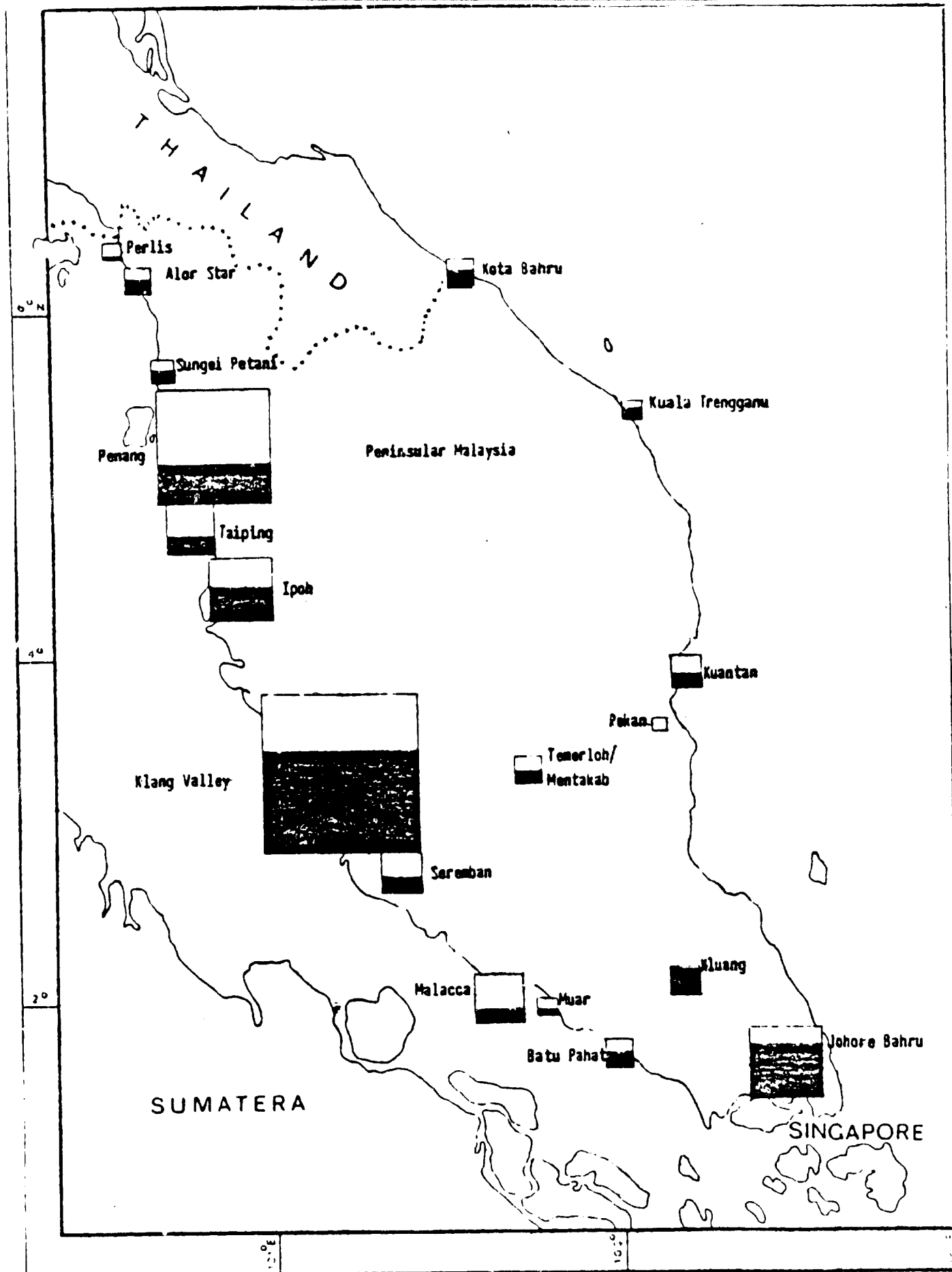
<sup>2/</sup> Malaysia: Tax relief under the locational incentive scheme:


<u>Qualifying fixed capital expenditure/employment</u>	<u>Years of tax holidays</u>
(i) For capital expenditure below M\$ 250,000 or up to 100 jobs	5
(ii) For capital expenditure of not less than M\$ 250,000 or not less than 101 jobs	6
(iii) For capital expenditure of not less than M\$ 500,000 or not less than 201 jobs	7
(iv) For capital expenditure of not less than M\$ 1,000,000 or not less than 351 jobs	8

Note: An additional year of tax relief will be granted for the manufacture of a "priority product", the same applies to use of local content.

<sup>3/</sup> An extensive analysis concerning the Malaysian decentralization policy is given in a study prepared in 1978 by the German Development Institute entitled: Industrial Location Behaviour of Malaysian and Foreign Investors. The Effectiveness of the Malaysian Decentralization Policy.

Figure 1: Peninsular Malaysia: Employment in manufacturing industries in 1970 and 1974 by locations



Employment in 1974  Employment Creation 1 cm<sup>2</sup> =  
 1970 - 1974 10,000 full time  
 Employment in 1970 paid workers

Source: Study by the German Development Institute 1970 entitled 'Industrial Location Behaviour of Malaysian and Foreign Investors - The Effectiveness of the Malaysian Decentralization Policy.'

the Second Plan period 1971 - 1975. The percentage of approved projects located in less developed areas increased from 43.1% in 1971 to 67.7% in 1975, 72.4% in 1976 and 71.5% in 1977. Of the total employment generated by the projects approved in 1977 68.7% (or about 20,000 persons) would be in less developed areas.

101. Thus, some definite progress has been made in the dispersal of industries in the last few years. The further efforts envisaged under the Third Plan include, inter alia, the establishment of additional industrial estates in the less developed areas. In mid-1975 only 11% of all industrial estates developed by the various State Economic Development Corporations (SEDCs) and the Malaysian Industrial Estates Sdn. Bhd. (MIEL) in Peninsular Malaysia were located in the less developed states of Kedah, Kelantan and Trengganu [while more than 50% were in the three most developed States of Pahang, Selangor and Johor].

102. In order to encourage the dispersal of industries specific work is also being undertaken in support of the establishment of various new growth centres in regional development areas such as in Pahang Tenggara and Johor Tenggara. Based on the mineral and agricultural resources available within these regions a number of potential industrial projects have been identified, such as integrated timber complexes, oil palm processing, chipboard and rubber products manufacturing.

(v) Development of small-scale industries

103. The development of small-scale industries plays an important role in Malaysia's economic development strategy, in so far as these industries are labour-intensive, utilize substantial domestic raw materials as inputs and can provide complementary and feeder services by acting as sub-contractors or ancillary establishments producing component parts for the use of larger industries.<sup>1/</sup> Often they are also suitably located, for instance in growth centres in less developed areas.

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<sup>1/</sup> Ancillary small-scale industries have not yet developed in Malaysia, perhaps because of the rapidity of the country's industrial development and perhaps also because of the importance of foreign firms in that development. For example, in Malaysia the electronics industry is itself largely an ancillary of firms located abroad. In Japan, India and in other more industrially advanced countries, the more efficient of the domestic small industries are those that supply components for larger domestic firms and are assisted by technical guidance and, frequently, finance from such large firms.

104. About 76% of enumerated manufacturing enterprises in Malaysia are in the small-scale industry sector; a small-scale industry being defined as an enterprise with up to 50 employees. Small-scale industries produce about 18% of value added in the country's total manufacturing sector and employs over 26% of its labour force. The productivity of labour increases roughly in proportion to the increase in the size of the establishment. (A significant part of this increase is due to the larger use of capital per unit of output in the larger industries).

105. To specifically promote the development of small-scale industries various measures have been taken by the Government such as the provision of finance, training and advisory and consultancy services. Specific steps, such as the following, have been considered in this context, namely the strengthening of existing loan programmes through improvements in staffing and follow-up; substantial increases in the volume of small-scale industry lending; the coordination and extension of technical assistance and training for small entrepreneurs; and the concentration, within target groups, on those small firms most capable of growth, particularly firms located in rural or less developed areas

106. Institutions providing finance to small-scale industries are MARA (Majlis Amanah Rakyat), Bank Pembangunan, MIDF, Bank Pertanian and commercial banks through the Credit Guarantee Corporation (CGC). By 1975 MARA had provided loans amounting to M\$ 163 million for the development of small-scale industries and businesses. Bank Pembangunan, established 1973, had by the end of 1977 granted loans of the total of M\$ 20 million to Bumiputra enterprises. Of the total 1,194 loans - amounting to M\$700 million - provided by MIDF, up to the end of 1977 more than two-thirds had been for the financing of small-scale and medium scale industries, although representing only about 11% of the total value of loans approved. Loans under CGC guarantee amounted to M\$ 244 million at the end of 1977, accounting for 17% of the total credit granted by the commercial banks to small-scale enterprises.

107. MIEL, a subsidiary of MIDF, is, in conjunction with the industrial estates development, providing ready-made factory buildings mainly for small-scale and medium-scale industries. By 1975 it had designed and built nearly 400 factories of different kinds in 14 locations at a total cost of M\$ 50 million.

108. To ensure effective coordination of the various agencies, an Advisory Council of Consultancy and Advisory Services for Small-Scale Industries and Businesses was established in 1972. During the Third Plan period it will be strengthened to become the Coordinating Council for the Development of Small-Scale Industries.

(vi) Participation of the Malays and other indigenous people

109. The New Economic Policy (NEP) embodies specific proposals designed to restructure the pattern of employment and ownership of wealth in the country. It has set as its target the ownership and management by Malays and other indigenous people of at least 30% of commercial and industrial activities in the economy and an employment structure at all levels of operation and management that reflects the racial composition of the nation by 1990. Since restructuring is planned to result from growth, Government policy has been directed towards assisting the Malays and other indigenous people to participate fully in the growth of commerce and industry.

110. One example is the various efforts being made to ensure that the skills of existing as well as intending entrepreneurs among the Malays and other indigenous people are up-graded through intensive training. For instance, the National Productivity Centre (NPC) offers some 800 short-term courses on a variety of management topics ranging from industrial engineering to accounting sales, and marketing and to management development and industrial relations. Specifically, NPC also conducts a two-weeks entrepreneurial development programme for Malays and other indigenous people. The Institut Teknologi MARA (ITM) also offers a wide range of courses, inter alia a programme for executive development (a 12-week intensive introduction to management skills and concepts) for new university graduates among the Malays and other indigenous people.

111. Another important programme is the provision by MARA and NPC of advisory services and industrial consultancies. Also MIDF, through its subsidiary, the MIDF Industrial Consultants Sdn. Bhd. (MIDFIC) established 1972, offers consultancy services ranging from market research to financial management. As of late 1975 MIDFIC had completed 81 assignments, two-thirds of which were undertaken on behalf of Malay and other indigenous clients.



112. Intensified efforts to increase credit for small enterprises with special emphasis on the needs of the Malays and other indigenous people were made in the Second Plan period. <sup>1/</sup> Government agencies involved include MARA, MIDF, MIEL, Bank Bumiputra, the SEDCs and Bank Pembangunan (Development Bank of Malaysia). As a result, the share of the Malays and other indigenous people of the total institutional credit increased from about 14% in 1971 to almost 30% in 1975.

113. As a result of the restructuring policies of the Government, there was a substantial improvement in the racial structure of employment during the Second Malaysia Plan. In general, Malays and other indigenous people had managed to obtain an increasingly larger share of employment in the more productive sectors. The percentage of Malay employment in manufacturing, for instance, increased from 28.9% in 1970 to 33.1% in 1975.

114. In the case of approved companies the bumiputra (Malay) employment stood at 51% of the total workforce at the end of 1976. 63% of the bumiputra employees fall in the unskilled worker category; 28.5% are in the technical category while only 17% are in the managerial category.

115. Progress in restructuring the ownership of the share capital and assets in the corporate sector as a whole was more limited during the Second Plan period. While the proportion of foreign holdings of share capital declined from 63% in 1970 to 55% in 1975 <sup>2/</sup> [and Malaysian ownership correspondingly increased from 37% to 45%], the ownership by Malays and Malay interests increased only from 2.4% to 7.8%. Similar changes took place in respect of ownership of industrial fixed assets. The activities of public bodies, operating on behalf of the Malays and other indigenous people, such as PERNAS<sup>3/</sup> (Perbadanan Nasional), the Bumiputra Investment Foundation, MARA, UDA (Urban Development Authority) and the

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<sup>1/</sup> For further information see, among others, 'Review of Existing Savings Institutions and Methods Used in Mobilizing Small Savings in Malaysia' by Tin Lin Pin, Econ. Research and Statistics Dept., Bank Negara, Kuala Lumpur, published in Economic Bulletin for Asia and the Pacific, Vol. XXVI, No. 1, June 1975, (Sales No.: E.75.II.F.5).

<sup>2/</sup> In absolute terms, however, the amount of share capital owned by foreigners in the private sector increased by an estimated 10% per year during the Second Plan; this being fully in line with the policy of Government to encourage foreign investment.

<sup>3/</sup> Among PERNAS' investments can be noted joint ventures with foreign participation such as Malayawata Steel, Pernas Plessey Electronics, Behn Meyer Engineering and a tyre factory operated by Goodyear.

SEDCs have maintained for the Malay and other indigenous community its option to invest in the growing volume of corporate assets. The 13 SEDCs alone established, during the Second Plan eight subsidiaries and took part in 76 joint ventures, while PERNAS, which began operations in 1970, participated through its engineering subsidiary in several manufacturing activities including the manufacture of telecommunications equipment and edible oil. MARA had established 10 companies in manufacturing which were providing employment to over 3,000 Malays and other indigenous people by 1975. Furthermore, the Food Industries of Malaysia Sdn. Bhd. (FIMA), incorporated in 1972 to promote the development of food processing industries in the country particularly in the less developed areas, had by 1975 investments in seven subsidiaries involved among others in pineapple canning, manufacture of feed meal, fruit juice, cans and boxes.

116. The Bumiputra Investment Foundation (Yaysan Pelaburan Bumiputra), established in 1978, is an open-ended unit trust which will take up shares reserved for Malays (bumiputras) in corporate enterprises and redistribute that equity into smaller units which, it is hoped, will bring equity investment within the scope of bumiputra individuals. The Foundation is envisaged to be the "premier organisation" among Government bumiputra trust agencies and is built up on a three-tiered corporate structure with initial Government-subscribed funds of M\$ 200 million. As a limited corporation with no share capital of its own, the Foundation is giving M\$ 100 million as a grant and M\$ 100 million as loan to its subsidiary, Permodalan Nasional Berhad which in turn will initially buy shares in larger and more profitable manufacturing enterprises, though as more capital becomes available it will also buy into smaller manufacturing companies. Amanah Saham Nasional (National Unit Trust Company) will manage Permodalan Nasional's equity portfolio and will sell units to and redeem them from the bumiputra community.

117. The acquisition of new share capital by Malays and Malay interests during the years 1971 - 1977 is estimated to 32.3% of all new share capital; the share of non-Malay and foreign parties being 36.1% and 31.6% respectively. This follows approximately the equity ratio of 30-40-30 envisaged in the New Economic Policy. In 1977 the bumiputra (Malay) equity share in projects approved was 42.1%

118. In the Third Malaysia Plan period it is envisaged that the Government through its public sector agencies will continue to participate directly in the management and operation as well as equity participation in a number of manufacturing ventures. The SEDCs either on their own or in joint-venture with the private sector are planning new manufacturing projects in fields such as cement production, ceramics, glass, bricks, wood-based and food processing industries involving a total capital investment of over M\$ 110 million and an employment potential of over 10,000 jobs. PERNAS will, according to the Third Plan, be involved in several industrial projects including the manufacture of fertilizer, cement, telecommunication equipment and pharmaceuticals. It will undertake mutually agreed-upon acquisition of share capital in existing companies on behalf of the Malays and other indigenous people.

VII. Review of prospects and potential for industrial development

(a) Raw material endowment

119. Malaysia is a land rich in natural resources, including important mineral deposits. Although the export earnings are concentrated on a few crops, the country's agricultural base is fairly well diversified. The production of major agricultural commodities in 1975-1977 is shown in the following table:

Table 22: Malaysia: Production of major agricultural commodities in 1975 - 1977

		<u>1975</u>	<u>1976</u>	<u>1977 (prel.)</u>
Rubber	tonnes	1,476,200	1,643,800	1,610,000
Rice	tonnes	1,309,800	1,299,600	1,142,300
Saw logs	cubic metres	15,418,800	26,151,900	26,674,500
Saron timber	cubic metres	3,708,400	5,335,700	5,582,300
Palm oil	tonnes	1,253,500	1,389,700	1,585,300
Palm kernels	tonnes	257,600	280,700	329,200
Copra	tonnes	126,000	123,000	117,000
Coconut oil	tonnes	80,000	77,700	72,700
Marine fish	tonnes	455,600	514,700	538,000
Fresh pineapples	tonnes	215,200	230,000	203,500
Sugar	tonnes	392,000		

Source: Bank Negara Malaysia: Annual Report 1977.

120. The projected growth up to 1980 of the output of major agricultural products is given in the following table:

Table 23: Malaysia: Growth of agricultural output up to 1980

<u>Production index</u> 1970 = 100	<u>1975</u>	<u>1980 (projected)</u>	<u>Annual growth rate (%)</u>	
			<u>1971-75</u>	<u>1976-80</u>
Rubber	116.3	155.6	3.1	6.0
Palm oil and kernels	296.8	634.2	24.3	16.4
Saw logs	108.2	149.6	1.6	6.7
Rice padi	120.2	143.5	3.7	3.6
Coconut and copra	106.5	114.7	1.3	1.5
Pineapple	81.7	92.4	-4.0	2.5
Pepper	124.0	174.7	4.4	7.1
Tea	72.5	59.1	-6.2	-4.0
Fish	159.5	192.2	9.8	3.8
Livestock	125.1	164.3	4.6	5.6
Aggregate production index	131.2	186.5	5.6	7.3

Source: Third Malaysia Plan.

121. Malaysia is since long the world's leading producer of natural rubber; its output in 1978 reached approximately 1.64 million tonnes, comprising 47% of the total world production. Intensive programmes of replanting with high yielding trees are continuously being carried out and new processes and techniques developed and introduced for the production of the high quality Standard Malaysian Rubber (SMR) through the joint efforts of RRIM (Rubber Research Institute of Malaysia) and MRPRA (Malaysian Rubber Producers Research Association). Active Research is also carried out in respect of the end-uses of rubber and rubber wood. The domestic demand for rubber at present by the tyre industry and other manufacturers of rubber products is small, comprising about 2% of output. It is envisaged that domestic consumption be increased to 300,000 tonnes annually by the end of the 1980's. As stressed recently by FIDA, the Government is specifically encouraging joint ventures - in industries manufacturing such products as rubber hoses, rubber piping, rubber belting, automatic rubber components and other latex-based products.

Other industrial prospective areas for investment would be export-oriented projects like footwear, tyres, rubber sport goods rubber toys, rubber mats, rubber floor tiles and medical and surgical rubber products.

122. Since 1966 Malaysia has emerged as the world's largest producer of palm oil. As shown in Table 23 above, during the Second Malaysia Plan period the palm oil and palm kernel production grew approximately five fold and is expected to continue to grow very rapidly with the annual growth rate projected up to 1980 being 16.4%. The output of palm oil would then be expected to constitute almost 60% of world output. Malaysia produced 1.6 million tonnes of crude palm oil in 1977, 15% more than in 1976. Production of palm kernels increased by 18% to 331,000 tons. Domestic consumption of crude palm oil has increased strongly during the last few years. In 1977 the number of refining and fractionating plants in production rose by 8 to 24 while consumption of crude palm oil increased by 48% to 353,000 tonnes, representing 54% of total crude palm oil production. In 1977 the Government approved 5 refining and fractionating plants, bringing the total number approved to 55. <sup>1/</sup> The exports of crude and processed palm oil from Malaysia came to about 1.43 million tonnes in 1977.

123. Output in the coconut industry in recent years has been declining because of ageing trees of poor quality and uneconomic holdings. The area under coconut has also lately declined marginally, mainly as a result of further conversion of land to other crops, notably oil palm. A modest increase for the coconut products is however foreseen during 1976-1980.

124. Production of fresh pineapples declined during the Second Plan period, being in 1975 about 20% less than in 1970. After a modest increase in 1976 it further declined in 1977. The decline in 1977 was attributed to small holder production (90,200 tonnes in 1977) while the estate production (113,300 tonnes in 1975) showed slight increase. Domestically the industry has been faced with problems of escalating costs of production

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<sup>1/</sup> The bulk of the palm oil currently undergoing processing in these refineries is in the form of neutralised palm oil, neutralised and bleached palm oil, palm olein and palm stearin with a limited quantity of end products such as cooking oil and vanaspati (a kind of vegetable ghee). It is expected that more of these end-products will be produced in future.

(in particular transport charges) and continued low recovery rate of the fruit for canning purposes, while the export markets for canned pineapples, in particular Japan, have been getting increasingly tight. It is foreseen that a partial recovery towards the 1970-level of pineapple production will be reached by 1980, resulting from replanting with high-yielding species and from a raise in the ex-factory purchase prices for pineapple under a new system of grading. The Food Industries of Malaysia Snd Bhd (FIMA) was incorporated in 1972 to promote on behalf of the Malays and other indigenous people the development of food processing industries in the country, particularly in the less developed areas. By 1976 the company had investments in seven subsidiaries which were involved, among others, in the canning of pineapple, manufacture of feed meal, fruitjuice, cans and bores. Under the Third Malaysia Plan FIMA is expected to expand its activities by undertaking projects such as the manufacture of edible oil, processing of cashew nuts and to cultivation of fruits and vegetables. <sup>1/</sup>

125. After having increased sharply in 1975 and 1976 the production of sugar cane on a raw basis was estimated to have declined by 8% in 1977 to 51,700 tonnes largely because of the drought which occurred during the year. In addition, the continuing problem of labour shortages for planting and harvesting of skilled labour to operate the mills remained an obstacle to higher production. However, the area under sugar cane, grown mainly by various integrated sugar schemes in Perlis, Negeri Sembilan, Perak, Kedah and Johor and schemes of the Federal Land Development Authority (FELDA) continued to expand, rising markedly by 33.5% to 27,100 hectares at the end of 1977. The domestic output of

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<sup>1/</sup> For further details regarding potential agro-industries development reference is made to "Agro-based Industries - Potential for Development", Chapter VII in Investment Opportunities in Malaysia, report on seminar held in Kuala Lumpur 27-29 October 1975 organized by FIDA.

sugar cane is, however, well below the refining capacity of the seven sugar refineries, estimated at 614,600 tonnes per year. Consequently, these refineries imported in 1977 about 427,400 tonnes of raw sugar mainly from Thailand and Australia for further processing into refined sugar to meet domestic consumption. In 1977, output of refined sugar by the refineries amounted to 483,500 tonnes, an increase of 15.8%.

126. Malaysia is extensively forested with a variety of tropical hardwoods and the production of logs have become another very fast-growing industry. Within the framework of a newly established natural forestry policy to protect the country's forest resources (in the light of the fact that the current rate of exploitation of timber would threaten to deplete the timber resources by 1990), steps are taken to further the best utilization of these resources. Such steps would include the establishment of integrated timber-processing complexes and various secondary wood processing industries, for production for example of timber mouldings and knockdown furniture, and of secondary products such as blackboard and chip board, as well as pulp and paper manufacture. <sup>1/</sup>

127. The mining sector contributes about 26% of the total export receipts. Tin, iron ore, bauxite and petroleum are the major minerals mined in Malaysia as indicated in Table 24. ~~A table giving more~~ detailed information on the country's minerals production 1970 - 1974 is appended as Annex I.

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<sup>1/</sup> For example, a M\$ 630 million pulp and paper mill is being planned in Sabah. The project participants include the Sabah Government and the Indian company Birla Brothers who together would hold 40% equity, while the Sabah Forestry Development Authority and the Malaysian firm Fibres and Chemicals Malaysia would hold 30% each. The project would involve the production of paper of all grades. The processing of rayon is also being considered.



Table 24: Malaysia: Minerals production 1975-1977

		<u>1975</u>	<u>1976</u>	<u>1977</u>
Tin (tin-in-concentrates)	tonnes	63,300	63,400	57,700
Iron ore	tonnes	348,000	308,200	330,000
Bauxite	tonnes	692,000	660,200	616,200
Copper	tonnes	20,900	77,600	100,000
Crude oil	barrels	36,450,100	60,547,000	66,983,600

Source: Bank Negara Malaysia Annual Report 1977

128. Malaysia is the largest tin producer in the world with about 32% of world production. <sup>1/</sup> The 1977 production was 57,700 tonnes which was the lowest in 15 years; the production having been declining since 1972, when 72,600 tonnes were produced, largely because of the mining of poorer grade tin-bearing land. As for the longer-term prospects for the tin mining industry, it should be noted that Malaysia's potential tin reserves are very substantial. <sup>2/</sup> Further with the establishment of the Southeast Asia Tin Research and Development Centre in Malaysia (UNDP-aided) research for extending the uses of tin will be stepped up.

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<sup>1/</sup> The Kuala Langat district in the State of Selangor is believed to hold the world's currently biggest tin reserve, spread over 40,000 acres. Negotiations for its development are going on between the Selangor State Government, PERNAS and Charter Consolidated of London.

<sup>2/</sup> See further David Lim, *The Economics of Tin-using Activities in the Tin-producing Countries of Southeast Asia*. Study prepared for ICIS, UNIDO, April 1978.

129. Production of iron ore increased in 1977 by 7.1 percent reversing the declining trend experienced since 1970 (when 4.4 million tons were produced). The domestic consumption of iron ore was about 256,000 tonnes or 78% of the total iron ore production.

130. Output of bauxite has steadily declined during the last few years to about 616,000 tonnes in 1977. 1.1 million tonnes were produced in 1970. A study is being undertaken on the feasibility of using local bauxite for conversion into alumina to feed as far as possible the aluminium smelters planned to be set up in Bintulu, Sarawak and Labuan, Sabah.

131. Copper production on a commercial scale commenced in 1975 from the Mamut copper mine in Sabah. Production of copper concentrates in 1977 reached 100,000 tonnes. Another copper prospect, also in Sabah, is being investigated, whilst in Peninsular Malaysia prospecting is carried out in the Pahang Tenggara area in respect of copper, lead and zinc. It is expected that copper will become a major export earner by 1980.

132. Limestone and other rocks, gravel, sand and clay are exploited in various parts of the country. Two-thirds of the limestone output is channelled directly for construction purposes whilst the remainder goes into the production of cement and non-metallic minerals. Clay is mainly used in the production of structural clay products. Production began in 1978 in a 400 Tons/day cement plant in Sarawak. The plant which is a joint venture between the Sarawak Economic Development Corporation and the Sabah Economic Development Corporation, will initially use clinker supplied from Japan and the Republic of Korea. As there is good resources in Sarawak of lime stone and clay needed for clinker production the Sarawak Government is actively promoting a joint venture investment with the private sector for a clinker production plant estimated to cost M \$ 150 million. A joint

venture between Sarawak and Japanese interests, Glass Sand Company Bhd, exports since 1977 about 2,000 tonnes/month silica sand to Japan. The sand is being refined in a processing plant before export.

133. Important petroleum and gas deposits off the coasts of East Malaysia and Eastern Peninsular Malaysia ensure present and future supply of fuel as well as of feedstock for the petrochemical industry. Thus, with the discovery of oil and natural gas in the continental shelf of Malaysia, there is great potential for the development of petro-chemical products industries. A national petroleum policy has been formulated with the objective of bringing about the efficient utilization of this resource for industrial development as well as ensuring that the nation exercises majority control in the management and operation of the industry. The national oil company PETRONAS, established in 1974, provides the organization and machinery for the effective implementation of this national policy. Although PETRONAS has been vested with the responsibility for the exploration, development, refining, processing, manufacturing and distribution of petroleum and petro-chemical products, the Government welcomes the private sector, including foreign enterprises, to participate with PETRONAS in these industries consistent with the national petroleum policy. <sup>1/</sup> Thus PETRONAS cooperates with international oil companies in the exploitation of petroleum resources on a production sharing basis.

(b) Exports of manufactures

134. Exports of manufactured goods which accounted for 19% of total exports in 1977. As noted earlier, it grew by about 29% per annum during the Second Plan period 1971-1975. It continued to grow in 1976, by 27% and in 1977, by 9% (see Table 16 above). Its projected growth during the Third Plan is close to 20% per annum. It is envisaged that, during the Third

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<sup>1/</sup> A Master Plan on the future development of the oil and gas industry has been prepared for PETRONAS (by the Japanese consultancy firm C. Itoh) and within envisaged total investments of order of magnitude of M\$ 6,000 million (whereof perhaps M\$ 2,000 million during the remaining years of the Third Malaysia Plan period up to 1980) the following projects have been reported on:

- Liquefied Natural Gas: Total investment of about M\$ 2,600 million, involving the setting up of a liquefaction plant to liquefy natural gas from Sarawak. Potential share holders: PETRONAS, SHELL, Mitsubishi. Production might commence by 1982. The capacity will be 6 million tonnes/year.
- Ammonia/Urea Fertilizer: Total investment of about M\$ 500 million. This will be an ASEAN project with envisaged export mainly to Thailand and the Philippines. Possible start up date: 1982.
- Petrochemicals complex: Total investment of about M\$ 2,500 and a target production date of 1982.

Plan period, export demand will constitute a major source of growth for the food, chemicals, rubber and machine products industries.

135. In the case of two of the fastest growing industries during the Second Plan, textiles and electronics, it is felt that existing over-capacity and overseas protectionism are limiting the prospects, at least for new investments. Also, the domestic market is as yet too small for much backward integration into intermediates. Still, in 1977 the category increasing fastest was machinery and appliances, which comprised largely electronic goods and electronic components and parts. Exports of this category accounted for 33% of total net exports of manufactures in 1977.

136. The textile exports rose in 1977 by only 6.7%, compared with a 45% increase the previous year. It might be noted that an agreement has been signed with EEC under which only nine categories of Malaysian textiles are subjected to restraint. The Malaysian textile companies are however, finding that, with restrictions in the traditional European, North American and Australia markets hindering growth, the local Malaysian market is being eroded by their more efficient rivals from Hong Kong and the Republic of Korea.

(c) Development of the engineering industry

137. The engineering industry in Malaysia although comparatively small, is growing rapidly. There are no metal working machine tool companies in the country, but there are two companies making a fairly wide ranges of wood working machines in small quantities as well as water pumps. A recent prefeasibility study, carried out by a French company at the Government's request, recommended the setting up of a fairly small plant, employing 150 persons and making a wide range of both metal-cutting and wood working machines.

Table 26: Forecast of machine tool demand in Malaysia 1970-85

(M\$ million)	1970	1975	1980	1985
Metal working machine tools	10.0	16.8	30.4	52.2
Woodworking machine tools	14.8	17.9	31.5	55.2
Accessories and parts	4.2	10.8	20.2	33.8

138. There are over 150 foundries in Malaysia employing about 3,000 workers. Most of the foundries and mechanical workshops are small-scale and use traditional skills and outdated equipment. Malaysia needs assistance in the manufacture and maintenance of tools, dies, moulds, jigs and fixtures for the mechanical, electrical and plastics industries. The light engineering and plastics industries set up to large extent during recent years, cover a wide range of products, such as bicycles, serving machines, electric fans, builders' hardware, automobile components, wire and wire products, bolts and . The plastics conversion industry alone numbers over 150 units and employs an estimated 2,800 workers. As few of the light engineering industries have toolmaking facilities of their own, most moulds and tools are imported. Most of few moulds and tools that are produced have a limited life and their quality often below international standards. One factor which inhibits the setting up of tool-making facilities is the lack of trained and skilled tool-makers. Many potential entrepreneurs hesitate to invest in any industrial undertaking requiring the use of tools, dies, jigs, moulds and fixtures, unless tooling services are readily available in the country. For this reason, it is desirable that Malaysia establish modern toolrooms and train the necessary skilled labour as soon as possible.

VIII. External assistance to the manufacturing sector

(a) UNDP/UNIDO technical cooperation

139. The second UNDP Country Programme for Malaysia covering the period 1977-81 was approved by the UNDP Governing Council in June 1977. The IPF for the programme period was US\$ 15 million and, supplemented by Government cost sharing input of US\$ 5 million, total amount available for the programme was US\$ 20 million. The programming exercise was carried out by the Economic Planning Unit (EPU) of the Prime Minister's Department and UNDP, Kuala Lumpur during 1976.

140. The programme is integrated with the national socio-economic development priorities contained in the Third Malaysia Plan, the Plan being the second phase in the implementation of the Government's New Economic Policy (NEP). The UNDP Country Programme is fulfilling a modest part of the external technical assistance needs of the Plan, recognizing that the thrust of the Plan is to redress poverty in both rural and urban areas, including the promotion of industrial development to provide employment opportunities for the growing labour force in urban areas. With the limited resources available the Programme is oriented to: (i) redressing poverty, (ii) tackling priority issues in the less developed States, particularly Kedah, Kelantan, Perlis, Sabah and Sarawak, and (iii) continuous support of selected development activities, including industrial project identification, technical training and management consultancy.

141. In the industrial development sector two major UNIDO projects have been programmed under the Second Country Programme namely:

(i) Industrial Project Identification (MAL/76/007)

The project is to assist FIDA in carrying out "industry analysis" in a number of sectors with the objective of identifying new industrial investment opportunities. The project is designed to utilize assistance from bilateral/multi-lateral sources other than UNDP such as the Commonwealth Fund for Technical Cooperation. Under the First Country Programme, UNDP/UNIDO assistance was extended to FIDA to develop the methodology and approach to this type of activity. An earmarking of US\$ 300,000 was made for expert services and training under the Second Country Programme. Presently two

UNIDO experts are assigned to the project, namely Mr. Peter Shaw, Project Coordinator and Mr. Joe Profita, Marketing Analyst.

(ii) Metal Industry Research and Development Centre  
(MIRDC, formerly MIDCOM) (MAL/71/536)

142. The project is to assist the Government in the establishment of the Metal Industry Research and Development Centre (MIRDC) to introduce new technologies and modern management practices to existing engineering and metal-working industries and enterprises, and to improve and strengthen the country's design and research, product development and consultancy capabilities in that field. The earmarking of US \$ 700,000 has been made under the Second Country Programme. The project started during the First Country Programme with a team of consultants, Romconsult, who in 1975 together with FIDA made preliminary recommendations based on a survey of industry needs. In 1976 and 1977 further investigations were carried out by SIRIM officers and, in May 1977, by representatives of Hindustani Machine Tool Ltd. (HMT) of Bangalore, India. A preparatory mission was carried out in January/February 1978 by a UNIDO staff member (Mr. Kneppel). The MIRDC is to be established on the SIRIM premises, under the responsibility of the Ministry of Science, Technology and Environment and with SIRIM as Government counterpart agency. It might be noted that Japanese bilateral assistance is being considered for the establishing of an Electroplating Centre within SIRIM.

143. In addition, under the Second Country Programme continued assistance was provided to MIDFIC, the industrial consultant subsidiary agency of MIDF in an effort to meet the need to develop qualified local consultants in the fields of marketing, financial management, industrial engineering and production management. This project is implemented by ILO. The earmarking in the Second Country Programme was US \$ 420,000 and the assistance is to be provided during 1977-1980 (MAL/70/015). Assistance is also being provided under the Second Country Programme in connexion with the establishment of the Export Credit Insurance Bhd (MECIB). The project which includes the provision under OPAS of the Chief Executive for MECIB for two years, is implemented by UNCTAD (MAL/76/020).

144. A number of UNIDO projects (mostly SIS) involving the provision of short-term expertise have been carried out during the last few years including :

Industrial Strategy Mission (Expert: Professor E.L. Wheelwright,  
December 1971 - January 1972 - IS/MAL/71/011)

Shipyards Consultancy (Experts: Mr. E.J. Niskanen, January  
1973, Mr. J.W. Prins, September 1974 - April 1975  
- IS /MAL/71/811)

Plastics Industry Development (Expert: Mr. A.D. Clarke, June 1972 -  
May 1973 - IS/MAL/71/809)

Pulp and Paper Industry Development (Expert: Mr. R.B. Glisbey,  
June - July 1973 - IS/MAL/73/001)

Waste Paper Collection and Use of Secondary Fibres in Paper  
Making (Expert: Mr. H.H. Schmidt, July - October 1978 -  
SI/MAL/77/801)

Transfer of Technology and International Licensing (Expert:  
Mr. Arni, February - May 1977 - IS/MAL/77/009).

145. Among completed large-scale technical cooperation projects of UNDP/UNIDO may be mentioned the assistance provided to the National Institute for Scientific and Industrial Research (NISIR), 1970-1975, in connexion with its establishment and initial operations. NISIR was subsequently merged with the Standards Institution of Malaysia (SIM) to become SIRIM. Large-scale assistance was also provided during the period 1964-1973 to the MARA leather and shoe factory Kulitkraf.

146. Under the UNIDF a project (UF/MAL/78/105) has recently been approved with the amount of US \$ 60,000 for the provision of assistance in the institutionalizing of programmes of entrepreneur development. The national counterpart agency is MIDF which, with MIDFIC and in cooperation with the Malaysia Institute of Management (MIM) and the National Entrepreneurial Research and Development Association (NERDA), will be responsible for the establishment of an effective industrial entrepreneur development programme, having national scope by coordinating existing national elements, and including entrepreneur development consultancy skills.

147. In the meantime a SIS advisory mission (SI/MAL/78/801) was carried out by a short-term UNIDO expert (Mr. Banford Preston) in late 1978 to (i) assist specifically the National Productivity Centre (NPC) in identifying and selecting industrial opportunities in conjunction with its programme of entrepreneurship development, which was



started about two years ago, and (ii), possibly, to prepare the initiation of similar activities at MARA.<sup>1/</sup>

148. A pending (not yet formally submitted) request for assistance is a SIS request from MARA for assistance by textile production and marketing experts in the carrying out of pre-investment studies and project preparation for batik manufacturing including proposals for modernizing of existing small-scale industries. Another area where the SIDFA, Mr. Iqbal, has indicated that there might be need for UNIDO assistance is in connexion with the possible establishment of a housing research organization which would, inter alia, carry out research and development on low-cost building materials manufacture.

149. The Bank Pembangunan Malaysia Bhd, furthermore, has contracted UNIDO [ref. letter of 8 November 1977] indicating the need for assistance in connexion with the carrying out of regional economic surveys by the Bank's Economic Research and Business Development Division. The approach to be used for the surveys was outlined in a detailed memorandum.

(b) Areas for potential further assistance within the industrial sector

150. The SIDFA Mr. Iqbal has recently<sup>2/</sup> prepared a note, entitled 'Conceptual Brief for Possible UNDP/UNIDO Technical Cooperation in the Realization of New Economic Policy Goals through Direct Support of Public Enterprises/Corporations' indicating possible avenues of strengthening the Government's efforts towards rectifying the problems of the existing public enterprises as well as laying a strong foundation for the effective and efficient development of the public enterprise sector as required under NEP. Mr. Iqbal identified the following specific areas for strengthening such efforts through UNDP/UNIDO cooperation:

- (i) The preparation of a comprehensive industrial plan to develop a perspective with a view to exploit the comparative advantages of the country in the face of the limited home market and charting out development patterns

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<sup>1/</sup> Further expertise in this field is provided to MARA through the Commonwealth Fund for Technical Cooperation. Full cooperation with the expert under this programme, Mr. Hari Kishan Singh, is being maintained in the development of the possible UNIDO inputs.

<sup>2/</sup> See Appendix II of Mission report to Malaysia, 12 June-1 July 1978, by Faqir M. Iqbal.

of the potential growth sectors of industry in order to derive suitable advantages in relation to the NEP goals. Mr. Iqbal indicates the assistance required by FIDA ( who would be the agency drawing up the plan) would involve the services of two experts (an industrial planner and an industrial economist) for 1½ year each plus fellowships. According to Mr. Iqbal's proposal specific purposes such an industrial plan would be to:

- identify growth sectors of industry and commerce with a view to the comparative advantages enjoyed by Malaysia;
- chart out the growth patterns of such sectors giving due considerations to the limitations of the home market;
- suggest requirements and modifications in policies in respect of investment promotion, fiscal and tariff incentives, etc.;
- draw up guidelines for policies to ensure an effective growth of the Bumiputra participation in the industry and commerce including that through the public sector;
- suggest/institute a coordinated mechanism to monitor the effects of such policies; and
- train a number of Government professional staff.

It would seem that the preparation of such an industry sector plan, or rather long-term strategy by FIDA, in cooperation with EPU, would be a very timely exercise immediately after the Third Plan mid-term review results are available in the context of initial basic preparatory work for the Fourth Plan.

- (ii) The provision of operational consultancies to selected public enterprises not performing well in selected regions or fields. Mr. Iqbal's preliminary project draft foresees that up to 10 enterprises would be selected and the consultancy assistance to be provided would involve about 10 experts for 6-9 months each in areas such as product planning and control; product design and development; production layouts and balancing of plant capacities; market research and development;

management; and financial controls. The project would also include fellowships. As this work would be within the sphere of activity of MIDFIC, (who is having both public and private sector industries as its clients), it might be practicable if the provision of the required assistance were made in conjunction with that body.

(iii) The development of the capacity of selected SEDCs and public corporations in industrial project appraisal, implementation and control. The aim of this assistance would be to ensure that the SEDCs and other public corporations, charged with enhancing the Bumiputra participation in industry and commerce by holding equity in such enterprises as a trust for future Bumiputra entrepreneurs, make right choice of projects, products, equipment, processes, partners and implementation strategies. The envisaged duration of this project is two years.

(iv) The instituting and strengthening of the Bumiputra Investment Foundation and its subsidiary Permodalan Nasional Bhd in its investment evaluation and forecasting, including the preparation of a blue print for its future growth.

(c) External assistance sources other than UNDP/UNIDO

151. Malaysia has been receiving external technical assistance from three main sources: (i) bilateral, (ii) multi-lateral, (iii) governmental and semi-governmental agencies, private foundations and volunteer bodies. Bilateral aid comes from Colombo Plan members and from others outside of this group, including Belgium, Bulgaria, France, FRG, the Netherlands, Poland, Rumania and the USSR. Multi-lateral assistance comes, besides from the UN-system, from the Commonwealth Fund for Technical Cooperation. Aid under the category (iii) above comes, inter alia, from the Asia Foundation, the Ford Foundation, the International Development Research Centre, the International Executive Services Corps and various Volunteer Services. Capital assistance resources are in the form of (i) project loans, from multi-lateral sources such as the World Bank, the Asian Development Bank, and the Islamic Development Bank, (ii) bilateral loans under government to government agreements and (iii) market loans and credits.

IX. Regional cooperation - ASEAN

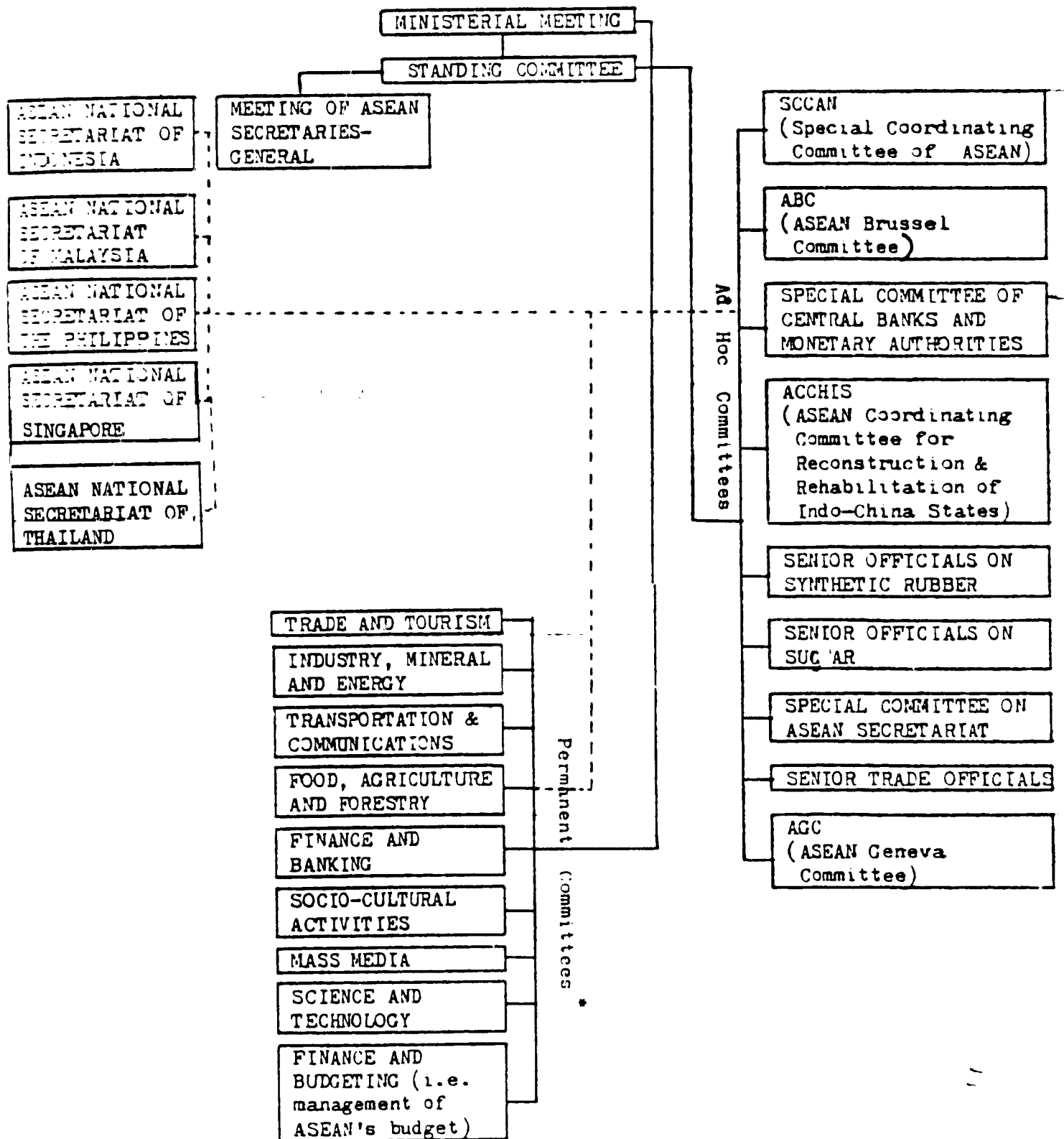
152. Recognizing the vital importance of regional economic cooperation to enable countries to meet common problems while accelerating their progress and development, Malaysia is intensifying its efforts to foster greater collaboration at the international, regional and sub-regional levels. This is borne out by its active participation in several regional organizations including in particular the Association of Southeast Asian Nations (ASEAN), but also the Islamic Conference, the Ministerial Conference for the Economic Development of Southeast Asia, the Colombo Plan for Technical Cooperation and the United Nations and its Specialized Agencies.

153. With the formation in 1967 of ASEAN which comprises Malaysia, Indonesia, Philippines, Singapore and Thailand, Malaysia has committed itself to the basic aim of ASEAN which is to accelerate the economic growth, social progress and cultural development of the sub-region. <sup>1/</sup>

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<sup>1/</sup> For further background information see document UNIDO/ICIS.62 of 3 April 1978, ASEAN Industrial Cooperation - A Background Note.

ORGANIZATIONAL STRUCTURE OF ASEAN



\*/ The Permanent Committees report directly to their respective Ministers, with copy of reports to the Standing Committee.

154. In the field of industry the practical achievements in the context of ASEAN cooperation, during the early period, were very limited. Several studies were made in respect of various schemes for cooperation in industry. Two major UN study efforts should, in particular, be mentioned:

- "Economic Co-operation among Member Countries of ASEAN" report of a UN Study Team with Mr. G. Kansu as Team Leader and Professor E.A.C. Robinson as Senior Adviser. The report is published in the Journal of Development Planning, Vol. 7, United Nations, New York, 1974.
- "Asian Industrial Survey for Regional Co-operation", report prepared under the auspices of ECAFE (now ESCAP) in cooperation with the Asian Development Bank and UNIDO. Professor H.C. Bos was coordinator for the study project, Mr. A. Feraldis was leader of the permanent team. The report is published as document AIDC (9)/1, United Nations New York, 1973.

155. Three principal and general techniques of cooperation concerning industry were developed in these reports, namely the technique of selective trade liberalization, the technique of industrial complementarity agreements and the so-called 'package deal' technique.

(i) Cooperation through selective trade liberalization

156. Cooperation through selective trade liberalization is being carried out through a gradual step-by-step and item-by-item approach. The ASEAN countries signed in February 1977 a Preferential Trading Arrangement (PTA) to encourage the expansion of intra-ASEAN trade (see Table 27). The instruments for the implementation of the liberalization of non-tariff measures on a preferential basis, long-term quantity contracts, purchase finance support at preferential interest rates, preference in procurement by government entities and other measures that may be agreed upon in the future. Under the PTA,

Table 27: ASEAN Trade analysed by country and product group, 1976 (US \$ thousand)

Indonesia Exports	Destination					Total
	Indonesia	Thailand	Singapore	Philippines	Malaysia	
Food and live animals		186	19,211	5	2,128	41,530
Beverages and tobacco		-	107	-	64	171
Crude materials, inedible, except fuels		910	303,275	-	14,882	319,067
Mineral fuels, lubricants, and related materials		122	252,677	89,382	159	342,340
Animal and vegetable oils and fats		-	1,053	153	280	1,486
Chemicals and products of chemical industries		180	1,206	51	158	1,595
Manufactured goods classified chiefly by material		83	8,741	2	24	8,850
Machinery and transport equipment		129	33,317	337	4,717	38,500
Miscellaneous manufactured articles		87	2,677	1	61	2,826
Commodities and transactions not classified according to kind		57	1,611	62	45	1,775
<b>T o t a l</b>		<b>1,754</b>	<b>643,877</b>	<b>89,993</b>	<b>22,518</b>	<b>758,142</b>
<b>Thai Exports</b>						
Food and live animals	131,895		114,546	24,058	85,218	355,717
Beverages and tobacco	3		527	30	3	563
Crude materials, inedible, except fuels	11,654		41,998	1,052	25,363	80,067
Mineral fuels, lubricants, and related materials	37		149	52	71	309
Animal and vegetable oils and fats	-		446	-	277	723
Chemicals and products of chemical industries	983		1,854	121	649	3,607
Manufactured goods classified chiefly by material	5,820		18,722	954	5,698	31,194
Machinery and transport equipment	2,394		16,473	1,844	5,939	26,650
Miscellaneous manufactured articles	441		2,641	136	713	3,831
Commodities and transactions not classified according to kind	-		-	-	-	-
<b>T o t a l</b>	<b>153,227</b>		<b>197,356</b>	<b>28,247</b>	<b>123,931</b>	<b>502,761</b>
<b>Singapore Exports <sup>1/</sup></b>						
Food and live animals	3,627	8,263		1,576	116,996	130,462
Beverages and tobacco	2,208	1,510		8	6,380	10,106
Crude materials, inedible, except fuels	10,023	4,744		1,275	47,678	63,720
Mineral fuels, lubricants, and related materials	382,099	88,474		9,551	169,326	649,450
Animal and vegetable oils and fats	666	851		20	3,544	5,071
Chemicals and products of chemical industries	22,541	14,977		7,078	102,776	147,372
Manufactured goods classified chiefly by material	56,397	8,716		3,813	165,155	234,081
Machinery and transport equipment	62,942	58,042		23,018	320,848	464,850
Miscellaneous manufactured articles	9,298	4,761		1,546	58,298	73,903
Commodities and transactions not classified according to kind	23	7,217		3,892	17,501	28,833
<b>T o t a l</b>	<b>549,824</b>	<b>197,555</b>		<b>51,777</b>	<b>1,008,502</b>	<b>1,807,658</b>
<b>Philippines Exports</b>						
Food and live animals	153	992	14,078		1,399	16,622
Beverages and tobacco	5	16	33		25	79
Crude materials, inedible, except fuels	211	213	405		3,242	4,071
Mineral fuels, lubricants, and related materials	24	32	4,663		3	4,722
Animal and vegetable oils and fats	-	39	3,446		225	3,710
Chemicals and products of chemical industries	3,504	3,478	1,747		1,441	10,170
Manufactured goods classified chiefly by material	12,025	1,648	5,522		4,035	23,230
Machinery and transport equipment	633	573	3,501		2,233	6,940
Miscellaneous manufactured articles	270	502	3,405		793	4,970
Commodities and transactions not classified according to kind	2	65	439		22	528
<b>T o t a l</b>	<b>16,827</b>	<b>7,558</b>	<b>37,239</b>		<b>13,418</b>	<b>75,042</b>
<b>Malaysian Exports</b>						
Food and live animals	1,397	2,804	108,901	3,015		116,117
Beverages and tobacco	276	-	4,606	4,311		9,193
Crude materials, inedible, except fuels	708	1,929	421,524	465		424,626
Mineral fuels, lubricants, and related materials	2,242	48,683	162,795	57,322		271,042
Animal and vegetable oils and fats	71	3,543	64,152	436		72,202
Chemicals and products of chemical industries	3,260	1,614	13,387	1,217		10,478
Manufactured goods classified chiefly by material	2,757	1,929	58,508	5,492		68,686
Machinery and transport equipment	10,270	5,079	66,350	2,426		84,125
Miscellaneous manufactured articles	1,364	2,126	55,290	4,686		63,466
Commodities and transactions not classified according to kind	511	564	6,804	145		8,024
<b>T o t a l</b>	<b>22,856</b>	<b>68,271</b>	<b>966,317</b>	<b>79,515</b>		<b>1,136,959</b>

<sup>1/</sup> Including re-exports

Source: Department of Statistics, Singapore; Department of Customs, Singapore; Central Bureau of Statistics, Kuala Lumpur; National Council of Statistics, Kuala Lumpur; Department of Statistics, Kuala Lumpur.

71 items have been identified for preferential trading according to two lists, one being a list of 21 products which have been agreed to by all countries for preferential trading and the other being a list of 50 products offered voluntarily by each of the countries for preferential treatment.

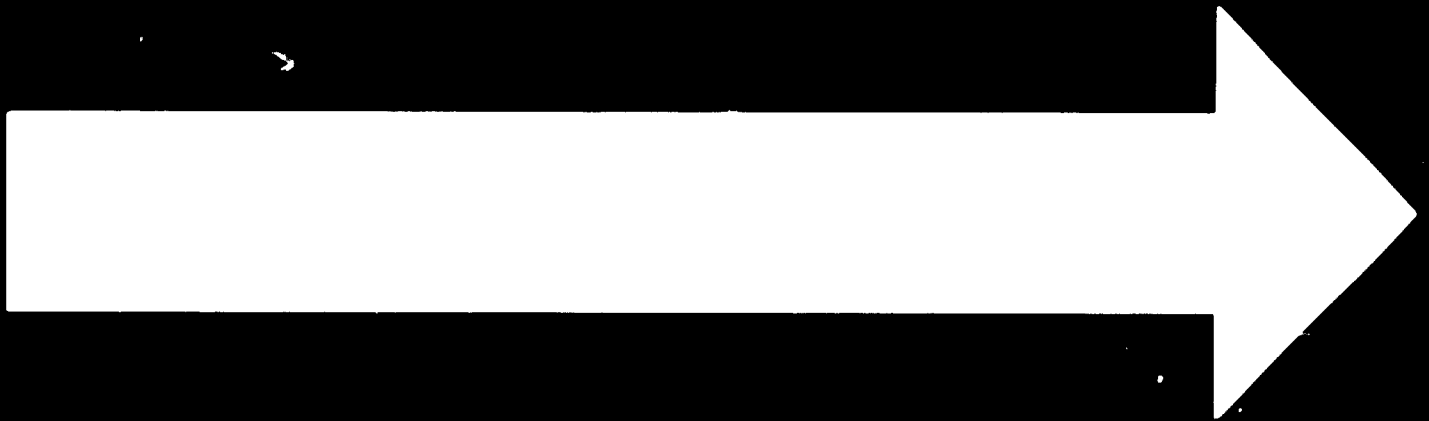
(ii) Cooperation through industrial complementarity agreements

157. The purpose of industrial complementarity agreements is to expand trade and industrial cooperation, at the level of the individual industry or small group of related industries, through negotiations. These are conducted by representatives of manufacturers in different countries, with the aim of preparing an agreement covering that industry for government approval. Proposals may include measures for the encouragement of specialization and exchange of products or components through uni-directional preferences, reduction or abolition of intra-regional tariffs, removal of quantitative restrictions establishment of joint ventures, and the sharing of markets. In the case of the ASEAN countries a number of industries were suggested in the two studies referred to in para. 154 for which complementarity agreements might be beneficial and suggestions were made for the conduct of negotiations and their supervision by government. It being envisaged that the greater portion of the ASEAN industrial cooperation programme will be implemented and materialized by the direct efforts of the private sector in the member countries through industrial complementation.

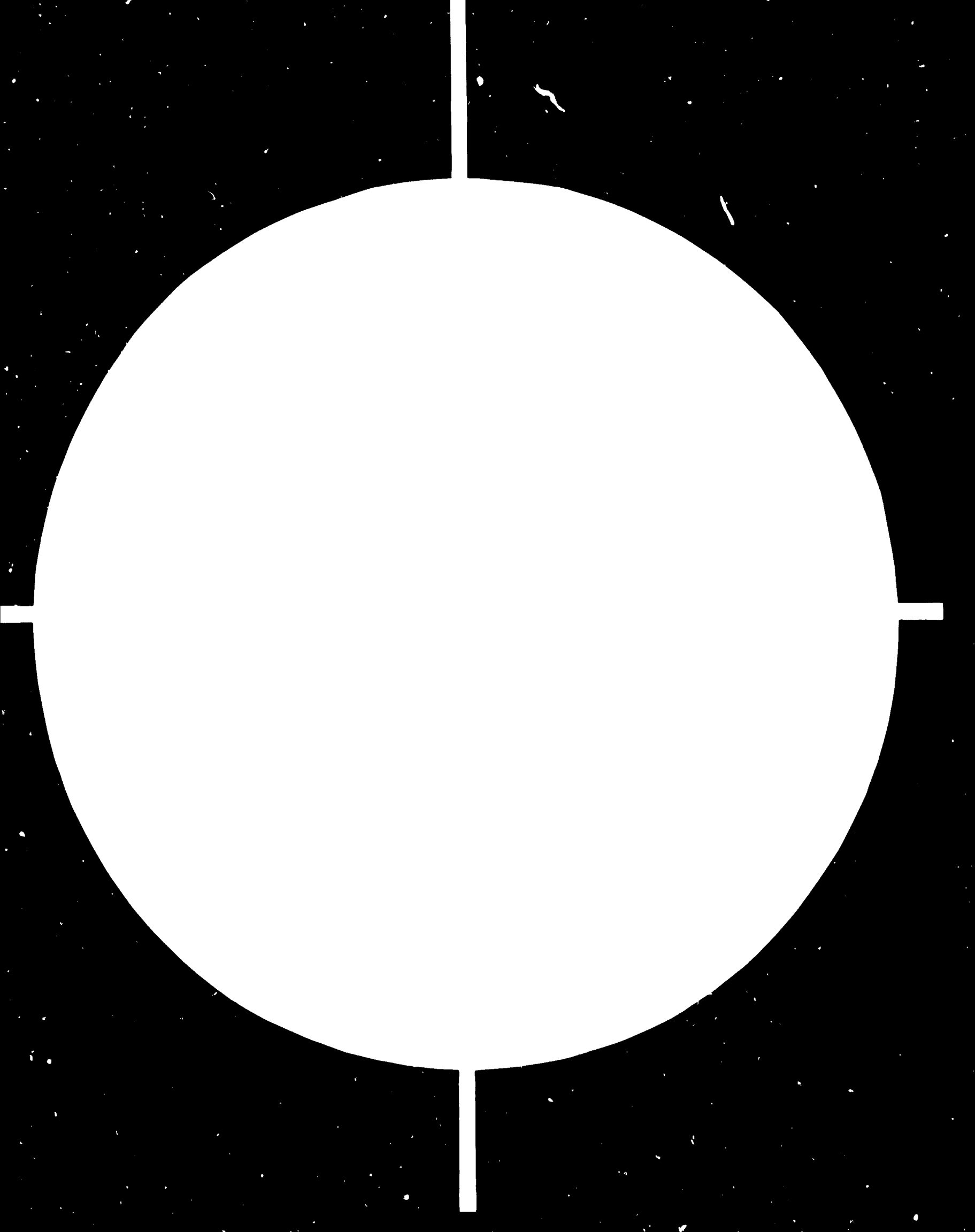
158. In response to the conceived role of the ASEAN private sector in achieving ASEAN industrial cooperation, the private sector organized itself into an ASEAN-Chambers of Commerce and Industry (ASEAN-CCI) in Jakarta in 1971. The ASEAN-CCI is the officially recognized forum for the private sectors of the ASEAN countries to discuss and formulate suggestions for consideration in ASEAN government councils. At the ASEAN-CCI Council Meeting in 1976, it was agreed that the principal vehicle for the ASEAN private sector efforts and cooperation in the ASEAN industrial complementation scheme is through the regional industry clubs (RIC). Industry clubs are defined as the aggrupations of private sector entities, associations, federations or groups within the same industry representing each of the identified industries for possible regional industrial complementation. Regional industry clubs are composed of the representatives of the national industry clubs given official recognition by the individual ASEAN Chamber of Commerce and Industry.



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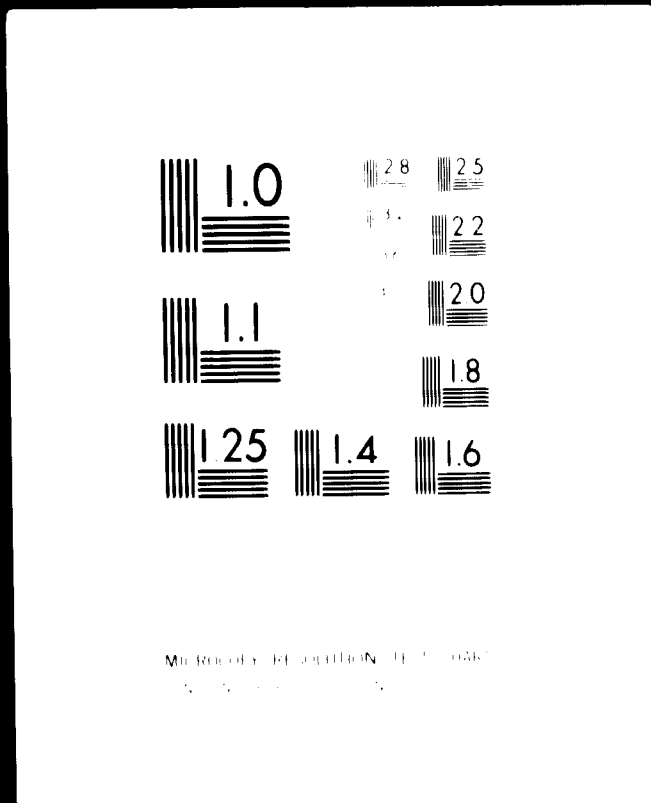


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Regional industry clubs have to be given accreditation by the ASEAN-CCI through recommendations of its Working Group on Industrial Complementation. The RICs given recognition are ASEAN Automotive Federation, ASEAN Federation of Cement Manufacturers, ASEAN Chemical Industry Club, ASEAN Federation of Electrical, Electronics and Allied Industries, ASEAN Federation of Food Processing Industries, Rubber Industries Association of Southeast Asian Nations, ASEAN Federation of Glass Manufacturers, and ASEAN Iron and Steel Industries Federation. Other RICs in formative stages include ASEAN Agricultural Machinery Industry Club, ASEAN Diesel Engine Industry Club, ASEAN Pulp and Paper Industry Club, ASEAN Engineering Club.

159. The ASEAN Automotive Federation through its Technical Committee is expected to submit a detailed complementation scheme by the end of 1978 through the ASEAN-CCI to the ASEAN Committee on Industry, Minerals and Energy (COIME). Before being formally submitted to COIME the private sector proposals will be reviewed by an intergovernmental experts group (set up by COIME). The scheme will ~~as a first step involve the~~ production of carburetors which are not manufactured at the moment in any ASEAN country. A local content schedule is being drawn up in view of the fact that a carburetor comprises more than 60 components and, initially, most will have to be imported. It is expected that the project be majority ASEAN-owned with the host country lacking a 51% share and the remainder divided among the other four ASEAN countries and a foreign partner. The latter would be expected to take 20-25% of the equity. The ASEAN Automotive Federation expects within the next few months to present schemes for an additional five to ten of some 30 products originally identified as possibilities. According to recent press reports <sup>1/</sup> the ASEAN Federation of Food Processing Industries is working on a proposed involving baby foods, while the ASEAN Chemical Industries Club is looking at polyvinyl chloride (PVC) and vinyl chloride monomer (VCM) as possible products for complementation.

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<sup>1/</sup> Business Asia, 6 October 1978.

160. Under RAS/77/003 'Industrial Cooperation in ASEAN' a UNDP project document for a small-scale project (with a total UNDP input of \$ 25.400), entitled 'Selection of Technological Families for Complementary Industrial Cooperation in ASEAN Countries' is under implementation. The immediate objective of the project is to establish the basis of an integrated system of technological families for separate manufacturing operations in the ASEAN countries. Altogether the product families are to cover most of the likely future demands of all the ASEAN countries; however, their manufacture may be beneficially distributed among the participating countries within a system of complementary specialization, to enable each country to concentrate on one or a few families of common technology and to establish production units of reasonable economies of scale. The results expected from the project are:

- (a) a study within ASEAN of the concept of complementary specialization,
- (b) a demonstration of the potential economic and practical advantages arising from this kind of industrial cooperation,
- (c) an initiation of more collaboration among ASEAN countries in industrial development.

A senior consultant Mr. E. Sabatha, was undertaking during the second half of 1978 field work analysing and assessing relevant industrial activities in the ASEAN countries. This work was undertaken in close cooperation with staff of the UNIDO/ESCAP Joint Division. A workshop was held in January 1979, with ASEAN experts, to review the consultant's findings.

(iii) Establishment of ASEAN industrial projects

161. The first approach to ASEAN industrial cooperation is however through the establishment of ASEAN industrial projects (AIP) through the joint efforts of the governments of the member countries. The ASEAN Governments have agreed to study initially five ASEAN industrial projects. These proposed projects being examined are: an ASEAN ammonia-urea project each in Indonesia and Malaysia, an ASEAN phosphatic fertilizer plant in the Philippines, an ASEAN diesel engine project, <sup>1/</sup> in Singapore and an ASEAN rock salt-soda ash project in Thailand.

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<sup>1/</sup> Only engines over 200 hp (in the case of Indonesia over 500 hp) are expected to get ASEAN preferential treatment.

162. The ASEAN Economic Ministers have also agreed on the general principle to govern the equity participation of the ASEAN countries in the first five AIPs, namely that for these first five AIPs the host country should have 60% of the total equity of the AIP with the balance to be shared equally by the other ASEAN countries. The products of the AIPs were assured preferential access to the member countries through the various instruments of preferential trading arrangements.

163. The Meeting of the ASEAN Economic Ministers held in Pattaya, Thailand in September 1977, accepted the ASEAN ammonia-urea project in Indonesia as the first of the ASEAN industrial projects while the Economic Ministers Meeting in June 1978 in Jakarta approved the Malaysia project. The Indonesian project is to be completed by 1981/82 and the Malaysian project one year later. Feasibility studies in respect of the other identified ASEAN projects are expected to be soon completed. At the same time the ASEAN Economic Ministers have already at a meeting in January 1977, agreed that prefeasibility studies would also be undertaken on other possible ASEAN industrial projects, namely heavy duty rubber tyres, metal working machine tools, newsprint, electrolytic tin plating, TV picture tubes, fisheries and potash.

164. Among potential ASEAN industrial projects to which major attention has been paid are those of integrated steel mills since the region's industries now generally have established a broad and solid base in the manufacture of secondary steel products. <sup>1/</sup> Technical cooperation (including bilateral aid by Japan for feasibility studies) is currently extended to two ASEAN countries, the Philippines and Thailand. In the case of Malaysia indications have been given of its particular interest in examining the possibility of producing sponge iron or high concentrated iron through the direct reduction process to overcome growing shortages. The Malaysian Government has granted approval for the expansion and setting up of several

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<sup>1/</sup> The ASEAN COIME has recently requested UNIDO to assist in the carrying out of a study on minimum size plants for steel processes for the ASEAN countries.

rolling mills. The country's total capacity for the production of steel bars and wire rods is now about 880,000 tonnes a year. A modern wire rod mill has recently begun trial production in Malaysia and will be able to meet the country's total requirements by the end of 1979. The trial plant will however face grave difficulties if there is a shortage of basic materials like iron ore, steel scrap or sponge iron. Malaysia now has an installed rolling capacity of 440,000 tonnes a year for the production of steel bars and wire rods but the installed melting capacity is only 260,000 tonnes a year. Importing expensive ingots has resulted in imported inflation which will worsen when the disparity between the two capacities becomes greater in the future. Malaysia also faces problems in the irregular supply of local raw material, especially steel scrap. It has installed more electric arc furnaces, and any shortage of ore will mean that such furnaces will be underutilized. This has prompted the government to study the feasibility of producing sponge iron. The abundance of natural gas and the high projected demand for sponge iron make its production a worthwhile venture the Deputy Minister of Trade and Industry, Datuk Lew Sip Hon has recently stated.

ANNEX I

Malaysia: Production of minerals and value, 1970 and 1974

<u>Mineral</u>	<u>1 9 7 0</u>		<u>1 9 7 4</u>	
	<u>Production tonnes un- less other- wise stated</u>	<u>Value M\$</u>	<u>Production tonnes un- less other- wise stated</u>	<u>Value M\$</u>
Tin-in-concentrates	73,792	811,456,321	68,122	1,275,894,657
Iron-ore	4,490,865	98,259,779	480,579	10,861,085
Bauxite	1,139,259	19,028,766	947,498	15,387,368
Wolfram	134	1,762,504	241	2,957,723
China Clay	3,326	230,064	146,371	16,897,068
Tin slags	912 (E)	2,137,792	9,329 (E)	568,175
Manganese	-	-	-	-
Ferro-Manganese	-	-	85,262	3,769,433
Columbite (B)	61	420,335	99	1,035,689
Ilmenite (B)	222,601 (E)	6,524,113	153,524 (E)	5,951,871
Xenotime (B)	393 (E)	1,971,610	102 (E)	368,670
Monazite (B)	1,657 (E)	612,568	1,724 (E)	641,216
Zircon (B)	839 (E)	56,417	20,035 (E)	7,353,600
Copper-concentrates (B)	1,221 (E)	395,840	-	-
Oil	858,947	37,800,915	3,874,455	823,212,466
Gold	5,177 oss	554,006	4,313 oss	603,496
Natural gas (B)	-	-	90,253,773 m <sup>3</sup> (1973)	956,194 (1973)
Scheelite	-	-	11 (1975)	-
Antimony	-	-	587 (1975)	-
Barite	-	-	814 (1975)	-

(B) • By-products

(E) - Exports

Source: A Brief Review of the Mineral Resources Development in Malaysia, paper prepared by Dato Mohd. Salleh Majid and D. Santokh Singh on behalf of Ministry of Primary Industries, Kuala Lumpur, for the ESCAP, Committee on Natural Resources, September 1976 (NR.3/CRP. 13).



ANNEX II

Malaysia: Ministers and Deputy Ministers  
(as of Oct. 1978)

<u>Ministry</u>	<u>Ministers</u>	<u>Deputy Ministers</u>
Prime Minister's Department	Prime Minister: Datuk Hussein Onn  Deputy Prime Minister: Datuk Seri Dr. Mahathir bin Nasir	Datuk Seri Hj. Kamaruddin bin Mohd. Isa
Ministry of Federal Territory	Datuk Hussein Onn	
Ministry of Trade and Industry	Datuk Seri Dr. Mahatir Mohamed	Mr. Lew Sip Hon
Ministry of Works and Public Utilities	Datuk Lee San Choon	Dr. Nik Hussein bin Abdul Abdul Rahman
Ministry of Transport	Tan Sri V. Manickavasagam	(a) Mr. Mohd. Ali bin Mohd Sharif (b) Dr. Goh Cheng Teik
Ministry of Law	Datuk Seri Hj. Hamzah bin Abu Samah	Datuk Abdullah bin Abdul Rahman
Ministry of Science, Technology and Environment	Tan Sri Ong Kee Hui	Mr. Clarence Mansul
Ministry of Home Affairs	Tan Sri Hj. Muhamad Ghazali Safie	Datuk Seri Syed Ahmad Shahabuddin
Ministry of Welfare Services	Datin Paduka Hajjah Arshan Hj. Abdul Ghani	
Ministry of Land and Regional Development	Tan Sri Datuk Hj. Abdul Kadir Yusof	Enoik Sanusi Junid
Ministry of Defence	Datuk Amar Hj. Taib Mahmud	Datuk Mokhatar Hashim
Ministry of Foreign Affairs	Tengku Datuk Ahmad Rithauddeen Al-Haj bin Tengku Ismail	
Ministry of Housing and Local Government	Datuk Michael Chen Wing Sum	(a) Datuk Hj. Ramli bin Omar (b) Mr. Samy Vellu
Ministry of Education	Datuk Musa Hitam	(a) Mr. Chan Siang Sun (b) Mr. Hj. Salleh Jafaruddin
Ministry of Finance	Tengku Tan Sri Razaleigh	(a) Dr. Neo Yee Pan (b) Puan Rafidah Asiz

Ministry of Culture, Youth and Sports	Datuk Samad Idris	Mr. Mak Hop Kum
Ministry of Health	Tan Sri Chong Hon Nyan	Dr. Sulaiman bin Haji Daud
Ministry of Agriculture	Datuk Shariff Ahmad	(a) Mr. Edmund Langgu anak Saga (b) Hj. Zakaria Abdul Rahman
Ministry of Information	Datuk Mohamad Rahmat	Dr. Ling Leong Sik
Ministry of Labour and Manpower	Mr. Richard Ho	Mr. K. Pathmanaban
Ministry of Primary Industries	Mr. Paul Leong Khee Seong	
Ministry of Public Enterprises	Mr. Abdul Manan bin Othman	
Ministry of Energy, Telecommunications and Posts	Mr. Leo Moggie	Datuk Najib bin Tun Haji Abdul Razak

ANNEX III

List of References

- Third Malaysia Plan 1976 - 1980, Kuala Lumpur 1976
- Mid-Term Review of the Second Malaysia Plan 1971 - 1975, Kuala Lumpur, 1973
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