Chapter IV

Industrial Development

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I. INTRODUCTION

4.01 The expansion of the industrial sector has provided the main stimulus to the growth of the Malaysian economy. The continued implementation of policies and strategies aimed at a more broad-based, efficient and export-oriented manufacturing sector has led to the further strengthening of the sector's development. The underlying objective of these policies and strategies is to address the structural weaknesses in the sector with a view to ensuring further acceleration in its growth as well as promoting its greater linkages with other sectors of the economy.

4.02 During the Fifth Malaysia Plan period, the manufacturing sector expanded rapidly, making it the leading growth sector in the economy as well as the largest sector in terms of employment creation. The export of manufactured goods also continued to increase its share as the single largest foreign exchange earner for the nation. While strong export performance has provided the impetus to the rapid expansion of the sector, underlying this significant achievement was the policy adjustments undertaken by the Government towards simplifying administrative procedures and regulations to provide a more conducive environment for industrial development.

4.03 For the Sixth Malaysia Plan period, the continued acceleration in the growth of the manufacturing sector is envisaged to contribute significantly to the overall expansion of the economy. Towards this end, the Plan will seek to expedite the diversification of the industrial base, promote increased linkages through the development of small- and medium-scale industries (SMIs) as well as accelerate industrial restructuring and modernization of the lagging industries. These strategies are essential for further strengthening and widening the industrial base as well as gearing the sector towards the attainment of higher levels of efficiency and competitiveness.

II. PROGRESS, 1986-90

Government Policies to Promote Industrial Development

4.04 During the Fifth Plan period, the development of the sector was guided by the Industrial Master Plan (IMP), 1986-95. IMP provided a long-term indicative plan for the development of specific subsectors, policy measures and areas of special emphasis. Policy recommendations were implemented to enhance private investment and to develop a more focused policy reorientation. Twelve subsectors have been identified as priority subsectors, comprising seven resource-based industries and five non-resource-based industries to be developed over the ten year period. The resource-based industries were food processing, rubber, palm-oil, wood-based, chemical and petrochemical, non-ferrous metal products and non-metallic mineral products industries. The non-resource-based industries were the electrical and electronic, transport equipment, machinery and engineering products, ferrous metal and textiles and apparel industries. The key recommendations of IMP that have been implemented were, among others, the consolidation of the fiscal incentives to promote investment with major improvements made to induce reinvestments, linkages, exports and training. Emphasis was also given to support research and development (R&D). The list of products to be promoted was continuously reviewed and the programme for industrial rationalization and restructuring to enhance industrial efficiency and competitiveness was launched.

4.05 A notable outcome of the IMP implementation is the participation of the private sector in various dialogues with the public sector and in the task forces established for the development of the industrial subsectors identified by IMP. This has reinforced the mutual support necessary to achieve general consensus and cooperation for industrial development.

4.06 Various other measures were also undertaken to foster industrial development and provide a more conducive environment for investment. Significant changes were made to legislation to promote the growth of the manufacturing sector. Policies affecting the manufacturing sector were made more attractive and procedures were simplified to further minimize administrative bottlenecks. Amongst others, the introduction of the Promotion of Investments Act (PIA), 1986 and the amendments made to the Income Tax Act, 1967 provided liberal investment incentives to potential investors. The exemption order under the Industrial

Coordination Act (ICA), 1975 was liberalized to exempt manufacturing companies with shareholder's funds of less than $2.5 million or 75 workers from being licensed. Measures were also undertaken to liberalize equity guidelines for foreign investment with a view to further enhancing its pivotal role in the expansion of the nation's investment activities.

4.07 Other factors which contributed to the rapid industrial expansion included the expansion of the domestic market and improved export competitiveness as well as the expansion of infrastructure. The cost of energy was also reduced since March 1989 with the provision of discounts in electricity rates for industries. In addition, the Government introduced special rebate schemes for the rubber and textiles subsectors and additional incentives for the wood-based industries.

Growth of Manufacturing Output

4.08 Manufacturing output expanded significantly during the period. Value added in the sector registered a remarkable rate of growth of 13.9 per cent per annum, more than double the Plan target of 6.4 per cent per annum. With this rapid expansion, the sector contributed nearly half of the increase in the nation's GDP during the Plan period. Correspondingly, its share in GDP rose from 19.7 per cent in 1985 to 27 per cent in 1990, surpassing that of the agriculture sector since 1987. This development marked another milestone in the nation's transition towards an industrializing economy.

4.09 While the overall performance has been commendable, the development of the sector was still characterized by a narrow industrial base. As shown in *Table 4-1*, the two traditional subsectors of electrical and electronic and the textiles and apparel continued to account significantly for the increase in manufacturing production. These industries which constituted some one quarter of the sector's output and grew by 26.8 per cent per annum and 11.5 per cent per annum, respectively during the Plan period, provided the push for the sector's output expansion. Notwithstanding this, the period also witnessed the emergence of other sources of growth which provided the additional thrust to the sector's growth. Among the rapidly growing industries were rubber products, transport equipment, oils and fats, wood and cork products, non-metallic mineral products, industrial and other chemical products and iron and steel.

TABLE 4-1

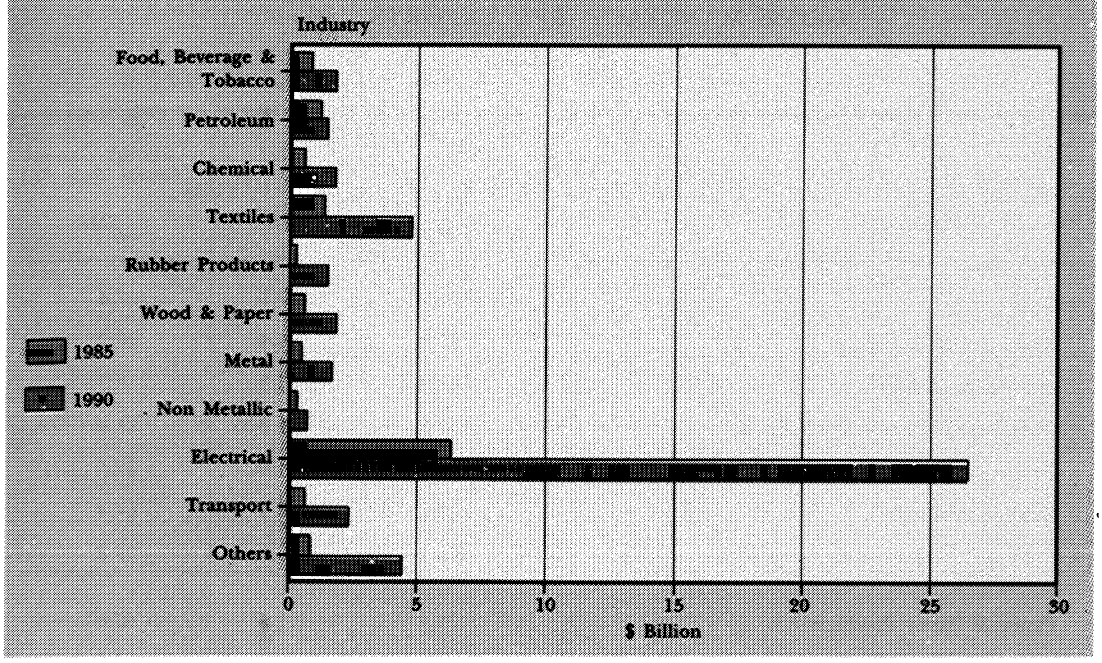
MANUFACTURING PRODUCTION INDEX, 1986-90
(1985 = 100)

Industry	Production Index			Average Annual Growth Rate (%)
	Weights	*1986*	*1990*	*5MP*
Food Manufacturing	7.8	102.1	154.5	*9.1*
Oils & Fats	8.7	114.5	171.3	*11.4*
Beverages Industries	2.9	100.5	145.6	*7.8*
Tobacco Manufacturing	4.8	79.2	100.0	*0.0*
Textiles & Clothing	5.4	112.3	172.4	*11.5*
Wood & Cork Products (Excl. Furniture)	6.2	96.6	172.1	*11.5*
Industrial Chemicals & Other Chemicals	18.0	115.9	157.3	*9.5*
Petroleum Refineries	3.2	121.8	159.0	*9.7*
Rubber Remilling & Latex Processing	2.0	107.8	138.4	*6.7*
Rubber Products	3.9	117.9	361.2	*29.3*
Non-Metallic Mineral Products	6.9	84.2	140.8	*7.1*
Iron & Steel & Non-Ferrous Metal	4.4	85.1	154.3	*9.1*
Fabricated Metal Products	3.5	96.3	146.6	*8.0*
Electrical Machinery, Apparatus, Appliances & Supplies	17.3	141.9	327.4	*26.8*
Transport Equipment	5.0	73.3	194.3	*14.2*
Total	**100.0**	**109.4**	**191.8**	***13.9***

Exports of Manufactured Goods

4.10 The expansion in exports provided the main impetus to the rapid growth of the manufacturing sector in the Fifth Plan. The export performance of the sector was impressive, increasing by 31 per cent per annum from $12,471 million in 1985 to $48,047 million in 1990. As a result of this strong performance, its share in total merchandise exports almost doubled from 32.8 per cent in 1985 to 60.4 per cent in 1990. The main contributors to this growth were the two non-resource-based export-oriented industries, namely, the electrical and electronic and the textiles subsectors, as shown in *Table 4-2 and Chart 4-1.* Together, they accounted for nearly two-thirds of the total manufactured exports in 1990. While the contributions of newly emerging industries to manufactured

CHART 4-1
GROSS EXPORTS OF MANUFACTURED GOODS
BY INDUSTRY, 1985-90



exports earnings was still small, they achieved very high rates of growth of some 31 to 64 per cent per annum during the period. These industries included the transport equipment, non-metallic, rubber, paper and paper products, optical and scientific equipment and manufacture of metal products. The export performance of the resource-based industries, namely, wood-based and non-metallic mineral also achieved rapid rates of growth of about 29.8 per cent and 38.7 per cent per annum, respectively.

Employment

4.11 The rapid expansion in the manufacturing sector has enabled the sector to contribute significantly to employment creation during the Fifth Plan period. Employment in the sector expanded rapidly by 8.6 per cent per annum from 855,400 in 1985 to 1,290,200 in 1990. As a result, the sector became the largest contributor to employment creation in the economy, accounting for about 44 per cent or 434,800 of the new jobs created during the period. Bumiputera accounted for 60.6 per cent of total new employment in the manufacturing sector while the Chinese 24.2 per cent, Indians 14.6 per cent and others 0.6 per cent.

TABLE 4-2

GROSS MANUFACTURED EXPORTS, 1985-90
($ million)

Industry	*1985*	*1990*	*Average Annual Growth Rate (%)* *5MP*
Food	755.5	1,700.1	*17.6*
Beverages & Tobacco	25.5	95.4	*30.2*
Petroleum Products	1,041.3	1,286.2	*4.3*
Chemical & Chemical Products	610.2	1,891.8	*25.4*
Textiles, Clothing & Footwear	1,288.5	4,754.0	*29.8*
Rubber Products	113.1	1,356.5	*64.4*
Cork & Wood Manufactures (excluding furnitures)	365.2	1,346.8	*29.8*
Paper & Paper Products	71.4	421.5	*42.6*
Iron & Steel	135.3	613.2	*35.3*
Manufactures of Metal	221.3	967.3	*34.3*
Non-Metallic Mineral Products	150.3	770.9	*38.7*
Electrical Machinery Appliances & Parts	6,492.9	26,495.5	*32.5*
Transport & Transport Equipment	566.2	2,233.5	*31.6*
Optical & Scientific Equipment	226.4	1,056.3	*36.1*
Other Manufactures	407.8	3,058.1	*49.6*
Total	**12,470.8**	**48,047.1**	***31.0***

4.12 The subsectors which contributed significantly to employment creation in the manufacturing sector were the electrical and electronic machinery and appliances, transport equipment, non-electrical machinery, rubber, plastic, apparel, paper and wood industries. Employment in these subsectors grew rapidly to register annual growth rates of between 7 to 21 per cent, as shown in *Table 4-3*.

TABLE 4-3

EMPLOYMENT GROWTH OF SELECTED[1] MANUFACTURING ESTABLISHMENTS, 1986-90
(As at end of year)

Industry	*1986*[2]	*1990*	*Average Annual Growth Rate (%)*
Food Manufacturing	26,377	29,080	*2.5*
Beverages and Tobacco	6,882	5,901	*-3.8*
Textiles and Clothing	49,830	74,377	*10.5*
Wood and Cork Products (excl. Furniture)	18,846	32,366	*14.5*
Paper and Paper Products	17,166	22,572	*7.1*
Industrial Chemicals and Other Chemicals	13,548	14,784	*2.2*
Petroleum Refineries	1,318	1,456	*2.5*
Rubber Products	26,728	45,980	*14.5*
Plastic Products	10,716	22,431	*20.3*
Glass and Glass Products	2,099	2,942	*8.8*
Non-Metallic Mineral Products	13,052	15,276	*4.0*
Basic Metal Industries	6,876	9,122	*7.3*
Fabricated Metal Products,	13,813	18,157	*7.1*
Manufacture of Machinery Except Electrical	3,367	7,130	*20.6*
Electrical Machinery, Apparatus, Appliances and Supplies	70,915	148,189	*20.2*
Transport Equipment	7,717	15,246	*18.6*
Total	**289,250**	**465,009**	*12.6*

Note:

[1] Based on Monthly Survey of Manufacturing Industries which covers about one-fifth of the total establishments

[2] Data for the years before 1986 by subsectors are not available at national level

4.13 The rapid expansion of the manufacturing sector has, however, led to labour shortages, especially along the West Coast of Peninsular Malaysia. Labour shortages were more apparent among the labour-intensive industries, especially textiles, wood-based and electronic. Besides the shortage of technicians and production workers, there were also shortages of workers with the appropriate experience. In response to this, efforts were made to increase the pool of trainable manpower and to address skill shortages through the expansion of training programmes in the public and private sectors.

4.14 The Report of the Cabinet Committee on Training has proposed a policy package aimed at reforming and revitalizing industrial training. The policy thrusts are directed at improving the responsiveness of public training to market demand, expanding the role of the private sector in training as well as strengthening the linkages between training and technological change. These policy reforms are expected to result in a more responsive and effective skill delivery system which will support dynamic and competitive industrial development.

Manufacturing Investment

4.15 In consonance with the Government's policies and strategies to attract private investment, the growth in investment in the manufacturing sector accelerated significantly during the Plan period, with proposed capital investment in approved manufacturing projects expanding by almost five fold. In addition to increases in domestic investment, the period witnessed a remarkable increase in proposed foreign capital investment from about $1,000 million in 1985 to more than $18,000 million in 1990. Apart from efforts by the Government to enhance greater foreign direct investment, the nation has also benefited from the relocation of industries from the industrialized countries, notably Japan, South Korea and Taiwan as a result of rising costs of production and appreciation of currencies in these countries. Malaysia has, therefore, positioned itself favourably to take advantage of these opportunities.

4.16 During the period, the number of projects approved for industrial investment was 3,210 with a total proposed investment of $58,575 million, as shown in *Table 4-4.* It is estimated that on average about 41 per cent of the projects approved will be in production or in the final stages of implementation by the end of the first year of approval while about 75 per cent of projects approved will ultimately be implemented. On the basis of this, of the total approved, the amount of manufacturing investment that was implemented was estimated to be $43,931 million. Of this, some 42 per cent was direct foreign investment

TABLE 4-4

APPROVED MANUFACTURING PROJECTS, 1985-90

Industry	Number of Approvals				Proposed Capital Investment ($ million)				Potential Employment			
	1985	*1990*	*5MP*	*%*	*1985*	*1990*	*5MP*	*%*	*1985*	*1990*	*5MP*	*%*
Food Manufacturing	57	36	200	*6.2*	579	571	3,887	*6.6*	4,123	2,379	36,030	*6.1*
Beverages & Tobacco	5	3	16	*0.5*	29	39	89	*0.2*	392	53	1,913	*0.3*
Textiles & Textile Products	50	124	372	*11.6*	123	1,195	2,407	*4.1*	8,022	19,105	64,445	*10.9*
Leather & Leather Products	1	8	15	*0.5*	1	33	55	*0.1*	80	2,029	3,449	*0.6*
Wood & Wood Products	28	85	239	*7.4*	117	1,738	4,071	*7.0*	2,343	19,781	63,161	*10.7*
Furniture & Fixtures	7	47	114	*3.6*	23	189	469	*0.8*	660	6,878	19,375	*3.3*
Paper, Printing & Publishing	35	40	97	*3.0*	1,816	1,141	2,019	*3.4*	5,463	3,857	9,636	*1.6*
Chemicals & Chemical Products	39	45	141	*4.4*	195	3,026	5,768	*9.8*	1,503	3,662	10,633	*1.8*
Petroleum & Coal	11	3	14	*0.4*	24	3,409	6,908	*11.8*	275	1,119	1,924	*0.3*
Rubber Products	24	34	492	*15.3*	96	139	2,727	*4.7*	1,858	2,882	73,304	*12.4*
Plastic Products	42	49	140	*4.4*	105	536	1,808	*3.1*	1,714	4,236	13,215	*2.2*
Non-Metallic Mineral Products	84	53	133	*4.1*	533	494	1,571	*2.7*	4,878	6,430	16,277	*2.8*
Basic Metal Products	32	26	108	*3.4*	621	9,054	11,883	*20.3*	2,292	8,164	15,900	*2.7*
Fabricated Metal Products	53	52	156	*4.9*	268	538	1,728	*2.9*	2,156	4,089	15,919	*2.7*
Machinery Manufacturing	41	36	99	*3.1*	137	1,276	1,592	*2.7*	2,389	10,582	17,076	*2..9*
Electrical & Electronic Products	62	213	609	*19.0*	241	4,212	9,477	*16.2*	7,848	65,369	193,538	*32.8*
Transport Equipment	33	23	170	*5.3*	681	344	1,485	*2.5*	3,989	3,118	16,066	*2.7*
Scientific & Measuring Equipment	5	4	16	*0.5*	21	79	305	*0.5*	658	1,556	3,692	*0.6*
Miscellaneous	16	25	79	*2.5*	76	158	326	*0.6*	2,954	4,475	14,012	*2.4*
Total	**625**	**906**	**3,210**	***100.0***	**5,687**	**28,168**	**58,575**	***100.0***	**53,597**	**169,764**	**589,565**	***100.0***

and the balance, domestic investment. In terms of size of projects, 97.5 per cent of the projects implemented were below $50 million and 51.2 per cent below $2.5 million. Large projects with investment exceeding $50 million constituted only 2.5 per cent. Of the total approved projects, 61 per cent were given Pioneer Status and Income Tax Incentives, as shown in *Table 4-5.*

4.17 Foreign investment in approved projects amounted to $34,908 million, rising by 79 per cent per annum during the period. The main sources of foreign investment in these approved projects were Taiwan, Japan, Singapore, United Kingdom, United States, Indonesia and Hong Kong, which together constituted 77.9 per cent of the total proposed foreign investment, as shown in *Table 4-6.* A significant development during the period was the rapid increase in the inflow of foreign investment from Taiwan, superseding that of Japan. About one-third of the total proposed foreign investment came from Taiwan and a quarter from Japan.

TABLE 4-5

APPROVED PROJECTS CLASSIFIED BY TYPE OF INCENTIVES, 1985-90

Incentive	*Number of Approvals*			*Proposed Capital Investment ($ million)*		
	1985	*1990*	*5MP*	*1985*	*1990*	*5MP*
With Incentives	229	524	1,957	4,227	25,637	49,421
Pioneer Status	78	440	1,540	596	22,407	39,066
Investment Tax Allowance	143	84	415	3,540	3,230	10,354
Locational Incentives [1]	8	0	2	91	0	1
Without Tax Incentives	396	382	1,253	1,460	2,532	9,154
Total	**625**	**906**	**3,210**	**5,687**	**28,168**	**58,575**

Note: [1] The Locational Incentive was phased out with the promulgation of the PIA 1986

TABLE 4-6

TOTAL FOREIGN INVESTMENT IN APPROVED PROJECTS BY COUNTRY OF ORIGIN, 1985-90

(Excluding Hotels and Tourist Complexes)

($ million)

Country	*1985*	*1990*	*5MP*
Taiwan	32	6,339	9,583
Japan	264	4,213	8,956
Singapore	100	895	2,672
United Kingdom	27	867	1,954
United States Of America	112	567	1,640
Indonesia	13	1,083	1,214
Hong Kong	28	375	1,170
Iran	0	1,014	1,014
Others	383	2,276	6,706
Total[1]	**959**	**17,629**	**34,908**

Notes:

[1] Foreign investment = Foreign equity + Loan attributed to foreign interest[2]

[2] Loan attributed to foreign interest is apportioned from the total loan according to the percentage of the foreign share in the equity of each project.

4.18 With respect to types of industries, in terms of the number of approvals, the approved proposals were concentrated in six subsectors, namely electrical and electronic products, basic metal products, textiles and apparel, rubber products, wood products and food manufacturing. These six subsectors accounted for almost two-thirds of the total projects approved for the period. While the electrical and electronic and the textiles and textile products industries continued to be dominant, constituting 19 per cent and 11.6 per cent, respectively, of the total approved projects, there was greater visibility, in terms of the spread of new investment to resource-based industries, particularly the manufacture of rubber products. They accounted for some 15.3 per cent of the total projects approved during the period. However, in terms of value of approved investment, there was a significant increase in the proposed capital investment for the basic metal products towards the end of the Plan period, representing huge and lumpy investment in the iron and steel sector. Similar trends were recorded also for chemicals and chemical products, petroleum and coal.

4.19 In terms of state distribution, the approved investment projects continued to be located along the western corridor of Peninsular Malaysia, especially in the States of Selangor, Johor and Pulau Pinang, as shown in *Table 4-7.* These states together, attracted slightly more than two-thirds of the total number of proposed projects with an investment proposal of $26,408 million. Selangor had the highest proposed investment, followed by Terengganu, Johor and Sarawak.

4.20 To support the growth of investments in the manufacturing sector, the capital and money markets were strengthened. Loans granted by the banking system expanded rapidly, as shown in *Table 4-8.* Total outstanding loans to the manufacturing sector by the banking system and industrial development finance institutions grew by 15.8 per cent per annum to reach $22,554 million by the end of 1990. In addition, several funds were established by the Government during the Fifth Plan for the provision of credit facilities to the SMIs, in particular, the ASEAN-Japan Development Fund (AJDF), Industrial Technical Assistance Fund (ITAF), Nursery Factory Scheme and the New Entrepreneur's Fund. The New Investment Fund (NIF), launched in 1985 to promote investments in new productive capacity at reasonable costs had been drawn down by the manufacturing sector with loans totalling $985.3 million at the end of 1990. This amount represented 96.2 per cent of the total amount of $1,024 million allocated to the manufacturing sector. Although the scheme had been terminated in 1988 when all funds had been allocated, Bank Negara continued to monitor the drawdowns and repayments of the approved NIF loans.

III. PROSPECTS, 1991-95

4.21 The nation is entering a new phase in its industrial development. The thrust in the Sixth Plan will be to promote new sources of growth so as to strengthen and diversify the industrial base while maintaining the importance of the traditional sources of growth, namely, electronics, textiles and apparel. The new approach will emphasize the development of export-oriented, high value added, high technology industries with strong support from domestic R&D and the growth of domestic high technology industries. The objective of the industrial policy in the Sixth

TABLE 4-7

APPROVED MANUFACTURING PROJECTS BY STATES, 1985-90

State	Number of Projects Approved			Proposed Capital Investment ($ million)			Potential Employment		
	1985	1990	5MP	1985	1990	5MP	1985	1990	5MP
Selangor	173	237	946	1,449	4,851	14,018	15,739	36,058	134,923
Terengganu	12	5	36	389	10,748	11,090	1,450	7,255	20,156
Johor	102	204	760	828	2,090	7,799	7,450	28,413	115,259
Sarawak	46	44	120	168	1,061	5,459	3,093	11,857	38,605
Kedah	21	65	165	70	3,993	4,985	1,838	18,410	41,714
Pulau Pinang	66	132	432	346	1,867	4,591	8,184	24,952	90,580
Melaka	11	29	112	107	409	2,419	774	7,934	29,412
Pahang	19	18	70	315	517	2,265	1,025	3,616	20,919
Negeri Sembilan	26	36	101	158	1,308	1,898	1,971	7,724	16,972
Sabah	28	34	129	1,368	286	1,727	5,023	4,938	19,263
Perak	46	68	192	227	877	1,578	3,034	13,606	39,308
Wilayah Persekutuan Kuala Lumpur	48	29	107	123	138	583	2,145	2,535	12,566
Kelantan	15	3	25	24	19	102	688	2,018	6,559
Perlis	10	2	10	58	5	36	1,106	448	1,456
Wilayah Persekutuan Labuan	2	0	5	59	0	24	77	0	1,873
Total	**625**	**906**	**3,210**	**5,687**	**28,168**	**58,575**	**53,597**	**169,764**	**589,565**

TABLE 4-8

OUTSTANDING LOANS EXTENDED TO THE MANUFACTURING SECTOR BY MAJOR FINANCIAL INSTITUTIONS, 1985-90

($ million)

Financial Institution	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*5MP*
Banking System	10,053	10,430	10,479	13,062	16,319	21,528	71,819
Commercial Banks	8,583	8,965	9,087	11,174	14,058	18,742	62,025
Finance Companies	618	577	554	698	944	1,336	4,109
Merchant Banks	853	888	838	1,190	1,317	1,451	5,684
Development Finance Institutions	766	772	647	636	821	1,026	3,902
Sabah Development Bank	145	135	44	46	31	76	332
Malaysian Industrial Development Finance Berhad	377	334	296	266	287	346	1,529
Development Bank of Malaysia	118	164	165	183	249	302	1,063
Industrial Bank of Malaysia	88	104	112	116	238	291	861
Borneo Development Corporation Sdn. Bhd.	13	13	13	12	9	6	52
Malaysia Industrial Estates Sendirian Berhad	25	22	17	13	7	5	65
Total	**10,819**	**11,202**	**11,126**	**13,698**	**17,140**	**22,554**	**75,721**

Plan is to move towards capital-intensive and technologically sophisticated industries producing better quality and competitive products that are integrated with the markets of developed countries. Towards this end, the Government will emphasize measures to accelerate industrial restructuring, technological upgrading, human resource development and industrial linkages that will ensure greater and higher level of domestic value added contribution to growth. All these will provide the foundation towards the attainment of the status of an advanced industrialized nation by the year 2020.

4.22 Continued efforts will be made to promote manufacturing investments by providing a conducive investment environment, improved infrastructural facilities and support as well as favourable domestic policies towards private sector participation and investments. In addition, since the quality of the labour force is a critical determinant of competitiveness and productivity in the manufacturing sector, the Government will ensure that there will be an adequate supply of trainable and skilled labour, especially to meet the anticipated demand of the capital-intensive and high technology industries.

4.23 In the long run, industrial development will emphasize greater automation or other labour-saving production processes to reduce labour utilization. Relocation of industries to areas with the required resource endowment, especially in terms of the supply of labour will be encouraged and promoted during the Plan period. The Government will also provide financial assistance for the development of infrastructural facilities for the relocation of industries. In addition, the role of the Ministry of International Trade and Industry (MITI) will be strengthened to provide the added momentum and focus on policy formulation and planning to guide the industrial sector to higher levels of development.

Sustaining the Momentum of Growth

4.24 The manufacturing sector is targeted to grow by 11.5 per cent per annum during the Sixth Plan period, contributing 45.8 per cent of the increase in the total GDP. As a result of this expansion, the sector will account for almost one third of GDP by 1995. The growth of the sector will continue to be export led. Export of manufactures, projected to grow by about 16.7 per cent per annum, will continue to sustain the sector's growth momentum and is anticipated to account for more than 70 per cent of the nation's merchandise export earnings by 1995. While the two traditional subsectors, namely the electrical and electronic and textiles and apparel, will continue to sustain the contribution to growth, the contribution of new sources of growth, especially resource-based industries will be enhanced through greater downstream and higher value added activities. In addition, the contribution to growth of non-resource-based industries is also expected to increase with the promotion of activities beyond the assembly line operations, such as the greater production of components and parts.

4.25 Liberalization and deregulation of the industrial sector will continue to be undertaken to sustain the momentum of growth and to promote industrial investment. Steps will be taken by the Government to review and update the IMP targets and policy framework and other industrial policies, especially with regard to tariff and non-tariff measures. These will be undertaken with a view to providing a greater focus for future industrial development.

Manufacturing Investment

4.26 To facilitate the rapid expansion envisaged for the sector during the Sixth Plan period, the high growth momentum of manufacturing investment achieved during the previous Plan will be sustained. It is estimated that the amount of investment required to achieve the targeted growth rate for the sector in the Sixth Plan will be more than $80,000 million, almost double the level of investment achieved during the Fifth Plan. Of this, $33,000 million is expected to be from foreign investment and the balance from domestic investment. Investment in the manufacturing sector is expected to account for the largest share of private investment, representing some 40 per cent of total private investment during the Plan period. In the light of this high level of investment requirements, the Government will continue to ensure the existence of a conducive environment for investments and reinvestments. These investments will be channelled to quality projects which have higher value added output and wider linkages as well as high technology content.

Improving the Incentives and Other Assistance

4.27 The provision of incentives for the manufacturing sector has been a factor contributing to the growth of private investment. Efforts will be made to monitor and assess the net benefits of granting the various investment incentives with a view to putting in place a more selective and effective system for the granting of incentives to promote efficiency, productivity and corporate restructuring as well as ensuring the attainment of an environmentally sustainable growth from the manufacturing sector. Incentives will also be aimed at enhancing self-reliance and the creation of competitive and efficient industries. The list of promoted products and activities will be reviewed so as to be more selective in the award of incentives, especially to the well established import-substituting industries. The package of incentives will be reassessed with the view to providing more emphasis on non-tax incentives which include, among others, the provision of better infrastructural and other support facilities.

4.28 The Government will also review the tariff structure with a view to creating a more effective and efficient system to promote industrial efficiency and competitiveness. At the same time, the Government will continue to ensure that developments in the exchange rate will not adversely affect investments and exports. The Government will also strengthen the mobilization of financial and human resources and facilitate speedier movement of goods in the country to support the continued growth of the manufacturing sector.

Broadening and Deepening the Manufacturing Base

4.29 Efforts will be made to further enhance the development of new sources of growth with a view to providing greater dynamism in an increasingly broad-based and integrated manufacturing sector. These sources will include the wood-based products, rubber-based products, oleochemicals, mineral-based and non-metallic mineral-based industries. In addition, capital and intermediate goods industries will be promoted. Emphasis will also be placed on product improvement in terms of quality and technology, through efforts towards the establishment of a strong scientific and technical infrastructure. In this respect, the recommendations of the Action Plan for Industrial Technology Development (APITD) which provide comprehensive guidelines for the development of short, medium and long-term strategies, will be implemented.

4.30 Among the strategies of the APITD are the intensification of industrial R&D with greater public sector resources channelled towards industrial research and the development of indigenous technological capacities as well as the development of adequate industrial manpower for R&D. The roles of existing R&D centres will be enhanced to be more industry-oriented and market driven in their activities. Increased funding for R&D will be given based on the priorities of the technology development programmes. This funding will be made available through direct matching grants, soft-loans and preferential credit allocations. The key areas designated for industrial technology development will be automated manufacturing, advanced materials, electronic technology, biotechnology and information technology. R&D will also emphasize the development of energy-saving technology and energy-efficient industries.

4.31 The Government's efforts will also be channelled towards the promotion of greater inter-industry and sectoral linkages and the promotion of downstream activities, especially in the resource-based industries. In this regard, the Government will encourage local firms to upgrade their product quality and support services so that industries located in FTZ can source their inputs from local firms. This will increase the domestic share of value added in manufactured exports from FTZ. As a leading producer of several primary commodities, the nation has a comparative advantage as a supplier of raw-material inputs. To encourage greater downstream activities, a number of R&D institutions, specifically set-up for resource-based research, will provide the technical support in technological development and product testing. Another important area for increasing downstream linkages will be the promotion of greater local processing of raw materials and primary commodities. Efforts will also be made to develop the SMIs as an important part of the resource-based industries. In addition, the Government will introduce and encourage the growth of venture capital for the development of technology-based enterprises.

Enhancing and Sustaining the Competitiveness of Manufactured Exports

4.32 The expansion of manufactured exports will be facilitated through the improvement of marketing and information networks, the promotion of new products and the penetration into new markets as well as the rationalization and modernization of inefficient industries. Improved technological capability is expected through greater R&D efforts. These efforts will contribute towards increased competitiveness of manufactured exports.

4.33 In order to ensure an efficient and competitive manufacturing sector, the Government's strategy is to restructure and modernize selected industrial subsectors in terms of improvement in capacity utilization, level of technology, cost competitiveness, productivity growth and export potential. The manufacturing sector will progress towards a higher level of sophistication in technology, product development and marketing to face rapid technological and economic changes in the international environment. The seven identified priority subsectors for the on-going restructuring and modernization programme are the textile, wood-based, machinery and engineering, steel rolling, shipbuilding and shiprepairing, automotive assembly and palm-oil processing. The strategies to sustain the development of these subsectors will include specific policy reorientation focusing on institutional and enterprise-level reforms. The textiles, wood-based and the machinery and engineering subsectors have been reviewed and their restructuring will be implemented during the Plan period. The Industrial Adjustment Fund (IAF), which was launched recently, with an initial amount of $500 million will be utilized for this purpose.

4.34 As part of the efforts to enhance and improve international competitiveness of industries, greater emphasis will be given towards the production of sophisticated high quality and high value added products that can compete and be integrated with the markets of the developed countries. Efforts will be directed towards ensuring that exports will be able to compete internationally.

4.35 Apart from the expansion in capital investment and the buoyant international market, the growth in output of the manufacturing sector in the past has largely been attributed to competitive labour cost. However, this advantage is being eroded with increasing wage pressures and the emergence of competition from other low-wage developing countries. During the Sixth Plan, therefore, productivity growth will be stressed in order to sustain the competitive edge of the industrial sectors. Emphasis will be given to the provision of adequately skilled and more productive labour force. Wages will need to be directly related to the levels of productivity and returns to investment.

Development of SMIs

4.36 The development of SMIs will contribute towards a more dynamic and competitive industrial sector through its supportive and complementary role. Its development and modernization will also spearhead efforts to broaden and deepen the structural base of the manufacturing sector. In addition, the setting up of an extensive network of modern ancillary firms will enable them to play a significant role in providing the feeder and technological linkages and ensure the successful development of the larger enterprises.

4.37 SMIs are generally dominated by domestic investors. Although constituting about 80 per cent of manufacturing establishments, they accounted for less than half of total investment and only one-third of value added in the manufacturing sector. Their small size coupled with inadequate capital, managerial, marketing and production capability as well as low utilization of modern technology, have resulted in the lack of inter-industry linkages, poor quality products and delays in delivery. This has inevitably necessitated the large firms either to expand their own production capacity without relying on subcontracts or to continue sourcing from abroad. In the light of this, the Sixth Plan will place greater emphasis on improving the capability of SMIs to supply the required production inputs of the larger enterprises and also to penetrate into export markets. This will reduce the development of mere assembly operations in favour of more integrated upstream and downstream activities with greater contribution to domestic value added. In this respect, the Government has undertaken the development of special industrial sites for the relocation of SMIs, in particular the foundry and engineering and the timber-based industries. This will also contribute to the widening and deepening of the industrial base.

4.38 For a comprehensive and integrated development of SMIs, the Small Scale Division of MITI will be strengthened in order for it to play a greater role in the coordination, rationalization and promotion of SMIs. A study on SMIs will be carried out with a view to help formulate a comprehensive programme for the development of SMIs, especially in the area of technology and skills development in the selected priority subsectors. In addition, with greater coordination and rationalization of programmes and activities, the resources and expertise from both the public and private sectors will be mobilized more effectively for the development of SMIs.

4.39 The small-scale industries are engaged in a wide variety of economic activities, such as the production of foodstuff, furniture, handicraft, fabricated metal products, wood-based products, textiles and clothing. The medium-scale industries tend to concentrate more on the processing of beverages and tobacco, electrical and electronic products, chemical products, non-metallic mineral products and automotive parts and components. In order to enhance their contribution to value added, programmes will be undertaken to improve the investment efficiency and productivity of the SMIs. Both the public and private sectors will play a complementary role in promoting the development of SMIs. For the public sector, the *umbrella concept* will be adopted through which the Government's purchasing scheme will provide opportunities not only to the small-scale Bumiputera enterprises, but also to the small-scale non-Bumiputera enterprises. This scheme will only be meaningful if the non-Bumiputera companies, especially those in the manufacturing and construction sectors, source their inputs and supporting service requirements from the Bumiputera enterprises. In this manner, both the public and private sectors will simultaneously promote SMIs development which will be mutually beneficial to both Bumiputera and non-Bumiputera. The other programmes for the development of SMIs will include the development of international marketing network and expertise, upgrading of managerial and entrepreneurial know-how and the development of indigenous technology. Apart from this, efforts will be continued to expand the requisite infrastructure, create the environment to ensure the development of efficient and competitive SMIs able to withstand the rigours of the market, as well as ensure adequate supply of a greater pool of skilled and trainable labour force to support the growth of these industries.

4.40 The programme for the development of SMIs will focus particularly on the supportive industries producing parts and components; mould and die; testing and tool-making; and high quality castings, forgings and other basic components. Efforts to link SMIs with larger enterprises through subcontracting arrangements will be instituted, especially for the parts and components subsector and the provision of machining services. In addition, SMIs will also be developed to provide ancillary support for the downstream activities of the electronic subsector. For the mould and die subsector, the supportive role of SMIs will be emphasized, especially for the plastic and rubber processing industries, woodworking machinery, industrial pumps, materials processing industries such as metal plating and textile dyeing. The development of viable and internationally competitive industries such as mould and die, domestic parts and components and equipment industry is necessary not only to raise the share of local content in industrial production, but also to enable the subsequent development of the present assembly sector into a fully integrated manufacturing activity on an international competitive basis.

4.41 To provide land and infrastructural facilities for SMIs, a furniture complex in Olak Lempit, Selangor, has been established while other similar projects are in the pipeline for Perak, Negeri Sembilan, Sabah and Sarawak. Besides these, foundry and engineering complexes at suitable sites will be established for the relocation of SMIs presently located in congested urban centres. These complexes will provide common facilities and services to promote R&D activities and improve productivity and competitiveness. The States of Perak and Selangor have taken steps to allocate land for the relocation of foundry and engineering industries in Pengkalan Industrial Estate and Rasa, respectively. Specific industrial establishments have also set up similar engineering complexes to service their own requirements. These efforts will increase the local content of manufactured goods and create the necessary linkages in industrial expansion.

Heavy Industries

4.42 The development of heavy industries will continue to be important in the effort to strengthen the foundation for industrial growth. In the light of this, the Government will undertake measures to ensure its orderly and sustainable development. The emphasis will be towards greater reliance on the private sector for the development of the heavy industries. The Government's role is essentially catalytic and supportive in nature and will not lead to unhealthy competition with the private sector. The Government, however, will continue to intervene in areas where investments are lumpy, and which require long gestation period and where the private sector is reluctant to venture into. Such investments through public enterprises will be aimed at creating spin-off activities and linkages for industrial development, particularly in the downstream small- and medium-scale industries. As such, public enterprises will continue to play an important role in selected strategic and heavy industries, namely, the automotive, petrochemicals, iron and steel and cement industries. At the same time, the privatization of major public enterprises, where viable, will be continued.

Human Resource Development

4.43 During the Sixth Plan, employment in the manufacturing sector will grow at 5.7 per cent per annum to reach 1.7 million by 1995. The sector is expected to generate about 408,900 jobs or about one-third of the total new employment in the economy. With the increasingly advanced technologies, which will be utilized in industry, about 4,200 engineers and 10,600 technicians are expected to be required by selected manufacturing subsectors. These selected subsectors constitute to only about half of the total manufacturing employment, thus, reflecting a high demand for engineers and technicians. As an example, from the estimated requirement of these selected subsectors for engineers and technicians about 2,500 engineers and 9,200 technicians will be needed only in the mechanical and the electrical and electronic fields. In addition, specialized skilled labour will also be required by the various industries that utilize electro-mechanical industrial machineries.

4.44 As local industries upgrade their technology and modernize their operations to remain competitive, there will be an increasing need for trained manpower that could take advantage of information-based manufacturing technologies as well as current managerial and organizational techniques adopted by industry worldwide. In recognition of these developments, training for technical and supervisory staff, particularly technicians as well as skilled workers at the production level will receive greater attention so that shortages of human skills will not pose a major bottleneck to the growth and modernization of industry.

4.45 With the increased demand for skills arising from rapid industrial growth, there is a crucial need to improve the current skill delivery system to enable it to respond more effectively to these demands. Greater involvement of the private sector in training and skills upgrading will be actively promoted in the organization and planning of courses offered in public sector training institutions and universities. Education and training institutions will be required to take steps to improve their course designs, curricula and management so as to be more responsive to market needs. These institutions, where possible, will provide customized courses required by the private sector. The accreditation of skills will be reviewed and expanded to include higher-level skills as well as new and emerging skills.

4.46 To encourage the private sector to train their employees to meet the increasing skill requirements of the manufacturing sector, the double deduction incentive on approved training, which was introduced in 1987, has been reviewed. Its scope of eligibility has been expanded to include training related to productivity and quality control improvement and new manufacturing firms undertaking the training of craft, supervisory and technical skills. The review also included the extension of eligibility to all manufacturing firms for training conducted at approved training institutions. The Penang Skills Development Centre and MARA Vocational Institutes (IKMs) are the new additions to the approved list of training institutions.

4.47 The Government is also considering the introduction of a levy-grant scheme to encourage greater private sector involvement in training as recommended by the report of the Cabinet Committee on Training. A Human Resource Development Fund is being formulated which will lead to greater training initiative by the private sector. The scheme is expected to provide incentive grants to enterprises undertaking training of the workforce in basic, enterprise-based and new emerging skills as well as retraining for higher skills. Greater emphasis will be given to the training and development of skills which are in short supply and which will improve productivity and industrial competitiveness. It will initially cover only the manufacturing and the tourism sectors. In order to ensure that the scheme is private-sector driven, a statutory board comprising greater representation from the private sector is expected to be established to manage and administer this fund. This scheme will accelerate the development of a training culture in the private sector so that staff pinching and skill shortages will be minimized.

Spatial Development

4.48 The geographical spread of new industries and the relocation of existing industries will continue to be determined by market forces. In this context, the Sixth Plan will place emphasis on the relocation of industries through the increased provision of transportation and other infrastructural support to less-developed states. In addition to the improvement of infrastructural facilities, measures will also be undertaken to reduce the costs of doing business in less-developed states through encouraging greater labour mobility and providing improved social facilities. The spatial development of manufacturing industries will take into consideration the development of industrial estates in the less-developed regions and the development of specialized industrial zones for high-technology industries, especially for the electronic and ceramic subsectors. However, in the developed states and well established industrial areas, the Government will encourage the development of industrial estates by the private sector. In these developed areas, the Government will only provide the prerequisite infrastructural facilities to encourage private sector initiatives.

Development of Rural Industries

4.49 The development of rural industries will continue to be an important vehicle towards increasing the living standards of the rural population. Their development will also provide opportunities for entrepreneurial resources of the rural Bumiputera community to interface with the modern manufacturing sector. During the Plan period, appropriate institutional arrangements and incentives will be provided to facilitate the implementation of a more broad-based programme with greater emphasis on higher employment opportunities and increased productivity.

4.50 The scope of rural industrialization programmes will also extend beyond the cottage and handicraft industries and will not be confined only to villages. These programmes will include the large and small-scale industries to be involved in industrial processing and business and commercial services. Towards this end, a number of *Rural Growth Centres* have been identified and selected pilot projects will be implemented.

4.51 In addition, other programmes being planned to assist the development of rural industries are the entrepreneur development, marketing, infrastructure and financial programmes. These programmes will aim at restructuring the rural industries to enable them to have better access to financial resources and credit facilities. Efforts will also be directed to improve marketing, supply of raw materials, productivity, technology, product design and management capabilities of these rural industries.

Bumiputera Participation

4.52 The Government will continue its efforts to create a strong and viable Bumiputera Commercial and Industrial Community (BCIC). In order to nurture the entrepreneurial culture, greater equity participation by individual Bumiputera will be encouraged vis-a-vis the participation of

Bumiputera trust agencies. To enable the transfer of entrepreneurial skills to Bumiputera, joint-ventures will be encouraged between non-Bumiputera or foreign investors and Bumiputera individuals or trust agencies. Apart from this, programmes for the development of individual Bumiputera in business will be continued. Efforts will also be undertaken to increase their accessibility to technology and finance. A more integrated development programme through subsidiary companies will be implemented, whereby Bumiputera entrepreneurs will be exposed to practical business management and appropriate technology.

4.53 Efforts to disperse industries to the new rural growth centres and to relatively less-developed rural areas will create positive spin-offs to the predominantly Bumiputera rural population and further increase their participation in the manufacturing sector. It is envisaged that the development of rural industries will concentrate on the resource-based industries which include crafts, light engineering, ceramics, textiles, leather, wood-based and food-based industries. Other opportunities for rural industrial entrepreneurs will include subcontracting for the non-resource-based industries, such as the electrical and electronic subsectors and tourism-related industries.

4.54 Public enterprises and trust agencies will provide the lead role in nurturing BCIC and increasing Bumiputera corporate equity. They will be the catalyst for promoting Bumiputera involvement in the industrial and business sectors. Public enterprises will be expected to increase Bumiputera participation in all sectors, including the manufacturing sector through the *umbrella concept* which is designed to provide the linkages through product sourcing and marketing that are consolidated under one large company. Several large Bumiputera companies are already playing this role. In this regard, a performance evaluation system will be instituted to review in quantifiable terms the achievement of public enterprises in terms of their contribution in the creation of BCIC. The pattern of financial support and the involvement of the trust agencies will also be monitored in order to avoid crowding out of activities for other Bumiputera investors.

4.55 The restructuring of public enterprises is being undertaken with a view to enhancing their achievements. Their management will continue to be revamped to increase their efficiency and profitability. Appropriate adjustments will be made to simplify administrative procedures to ensure direct accountability of public enterprises. The privatization of suitable public enterprises is already being undertaken and will continue to be used as a vehicle to create greater opportunities for Bumiputera participation in industrial development.

4.56 The role of public enterprises in regional development is important in the light of the reluctance on the part of the private sector to invest in the rural and less-developed regions. Public enterprises which have been specifically established to promote more balanced regional development include the State Economic Development Corporations (SEDCs) and the Regional Development Authorities (RDAs). Their programmes in the Sixth Plan will give greater focus and emphasis to the creation of a more viable and efficient BCIC.

Support Facilities for the Manufacturing Sector

4.57 In order to further promote the expansion of the manufacturing sector as well as ensure balanced spatial development, support and infrastructural facilities will be improved. This will include the development of industrial estates, improving energy and water supplies as well as transport and communication facilities and the provision of the necessary adjoining social and communal amenities to the workers in industrial areas. In addition, the establishment of specialized industrial estates with supporting R&D and testing facilities, training, toxic waste disposal and other services will also be undertaken to assist the development of ancillary industries. Programmes for the development of specialized industrial estates for high technology, plastic, foundry, engineering and wood-based industries and computer-related technologies will be launched in the Sixth Plan.

4.58 Transportation facilities will also be expanded to meet the needs of industry. The haulage capacity, including rail, ports and airport capacities, will be improved to avoid congestion as well as to reduce the cost of transportation. This is important to sustain Malaysia's competitiveness and comparative advantage in the region.

4.59 The services sector, which supports the development of the manufacturing sector, will be liberalized and deregulated to further promote its development. The rules and regulations governing the distributive trades will be minimized and its operating costs reduced. Other industrial services, which form the supporting industries for manufacturing such as packaging, design and quality control, will be developed with the support of the private sector.

4.60 Environmental concerns relating to the growth of the manufacturing sector will be given greater attention. Measures will be introduced to encourage existing as well as new industries to install their own pollution-control equipment and facilities with a view to minimizing the generation of toxic and hazardous wastes with the installation of on-site or off-site storage facilities for their own waste. Industries have to ensure that sufficient land is acquired within or adjacent to their factories for the purposes of pollution control and waste treatment. Incentives for this effort will include the reduction of premium on land for such purposes. Apart from strict enforcement of environmental laws and regulations, a system of disincentives will also be introduced, particularly for those polluting industries encroaching on housing areas.

Promotion of the Malaysia Incorporated Concept

4.61 Both the public and private sectors will play complementary roles in industrial development. Efforts to promote the Malaysia Incorporated Concept more effectively will include a more focused role of the private sector which will be synchronized with that of the public sector. Besides the existing mechanism of dialogues and Task Force meetings between the public and private sectors, other concrete measures will include the establishment of a consultative panel on trade and industry under MITI. There will also be greater coordinated efforts towards export promotion, training, joint R&D efforts and technological upgrading. The role and contribution of the private sector in spearheading the implementation of industrial development programmes will be further enhanced.

IV. **ALLOCATION**

4.62 The Federal Government development allocation for industrial development during the Sixth Plan will amount to $3,187 million, as shown in *Table 4-9.* The allocation is in line with the emphasis and strategies of the Government for industrial development in the Plan period. This allocation is aimed at providing the necessary physical, social and scientific infrastructural support to enhance the involvement of the private sector in industrial development.

4.63 The allocation for industrial estate development is aimed at the provision of infrastructure and the development of specialized industrial estates, especially for SMIs and high technology industries. The Government will also continue to support the development of industrial estates in the less-developed states through the provision of loans to SEDCs, grants for infrastructure and other facilities for new industrial estates. A total of 11,102 hectares of new industrial land is expected to be developed during the Sixth Plan. For rural industries, the allocation will be for programmes aimed at the development of industries in the rural areas which include training, development of handicrafts training

TABLE 4-9

DEVELOPMENT ALLOCATION FOR INDUSTRIAL DEVELOPMENT, 1986-95

($ million)

Programme	5MP Allocation	5MP Expenditure	6MP Allocation
Industrial Estates Development	127.7	127.1	291.4
General Industrial Estate Development in Less-Developed States/Regions (Loans)	127.7	127.1	*188.4*
Special Industrial Estate Development/ Hi-Tech (Loans)	—	—	*103.0*
Development of Industrial Infrastructure	—	—	493.1
General Infrastructure	—	—	*222.8*
SMI Development	—	—	*140.6*
Hi-tech Infrastructure Support	—	—	*129.7*
Rural Industries	77.4	77.0	162.3
Training and Consultancy services	28.1	27.7	341.7
Investment in Heavy Industries	2,553.6	2,553.1	1,497.3
Programmes for Commercial and Industrial Development	25.0	25.0	235.0
Implementation of APITD	—	—	166.0
Total	**2,811.8**	**2,809.9**	**3,186.8**

centres, the provision of infrastructure for rural industries, promotions for rural products as well as grants and assistance for purchases of machinery for cottage industries. With respect to training and consultancy services, the allocation will be used to promote entrepreneurial development and to enhance the skills of the workforce, especially at the vocational and technical levels. The latter will be carried out in collaboration with the private sector through the establishment of Skill Development Centres in selected areas.

4.64 Allocation for investment in heavy industries consists of projects related to new investments and the expansion of existing plant capacity, especially in the steel industry in which the private sector investments are not forthcoming. These projects include those under HICOM and companies under the Minister of Finance Incorporated. These investments will be undertaken with a view to be divested by the Government in the future. With regard to BCIC, the allocation will be for projects that will promote Bumiputera participation in the commercial and industrial activities, especially in entrepreneurial development, managerial development, skill development and the provision of financial and technical support and services. There is also a special allocation which has been provided for the implementation of APITD in order to provide the required support for technology development. This will provide the essential foundation for the attainment of the status of a developed nation by the year 2020.

V. CONCLUSION

4.65 Industrial development in the Sixth Plan will continue to be spearheaded by the manufacturing sector. This sector will continue to be the largest contributor to value added growth and export earnings as well as a major source of employment creation. The main thrust of industrial development will be to broaden, deepen and modernize the industrial structure through the development of export-oriented, high value added and high technology industries as well as the development of SMIs. This will also be supported by a strong human resource development programme. The private sector will play the pivotal role in the expansion of the manufacturing base and the upgrading of technological capabilities. The Government will provide a supportive role in terms of improving the infrastructural facilities and ensuring a conducive environment for investments and industrial development.

Chapter V

Education And Training