

Chapter IV

Population, Labour Force and Employment, and Manpower Development

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I. INTRODUCTION

Population trends continued to show a high growth rate during the Fourth Malaysia Plan period, 1981-85. The labour force grew faster than population due to the age structure of the population which resulted in increasing numbers in the working-ages. The slack in economic growth during the period, however, affected employment growth, resulting in increasing unemployment. Nevertheless, pockets of shortages of labour, particularly in the plantation sector, continued to exist together with growing underutilization of labour resources in the economy. Despite the overall slackening in employment generation, the demand for high level and specialized skills continued to remain strong in the light of the efforts made in broadening and diversifying the economic base towards more high-technology industries as well as in expanding and improving social services. Skill-specific shortages were also experienced during this period. Continuing efforts were directed at expanding and restructuring the education and training system to meet the manpower needs of the economy more effectively.

The labour force will continue to grow at a faster rate than population during the Fifth Malaysia Plan period. With economic growth expected to be less favourable than in the preceding five years, the rate of employment creation will be affected. The unemployment rate is, therefore, expected to increase further, with the incidence of unemployment highest among the young. In addition, sectors that traditionally were major generators of employment are expected to account for less of the new jobs created. Labour market adjustments will have to facilitate greater mobility of labour between declining and expanding sectors. The private sector is expected to contribute significantly to employment growth in the future as the public sector will be constrained in the provision of jobs.

In view of the slower growth of the economy, the thrust of manpower development efforts during this period will be directed towards increasing the productivity of the workforce through upgrading skills, particularly managerial, scientific, and technical skills as well as the development and enhancement of leadership and entrepreneurial capabilities. Greater efforts will be made to increase the supply of trained and skilled manpower at all levels to ensure that they are effectively allocated to meet the manpower needs of the economy. While the public sector will continue to expand its training programmes, more attention will be given to increase private sector involvement in training, in line with efforts to enhance the effectiveness of skill development, in meeting the requirements of the country.

II. POPULATION

Developments, 1981-85

Population growth. The population of Malaysia increased at an annual rate of 2.6 per cent from 13.9 million in 1980 to 15.8 million in 1985. The annual growth rate of population for Peninsular Malaysia, Sabah, and Sarawak, however, differed. It was lowest in Peninsular Malaysia at 2.5 per cent and highest in Sabah at 3.9 per cent, as shown in Table 4-1. The annual growth rate of population in Sarawak was 2.7 per cent. These differential growth rates were partly due to differences in fertility levels, fertility being lowest in the Peninsula and highest in Sabah, and partly to international migration into Sabah in response to economic opportunities in that state. Consequently, there was a change in the geographical distribution of population, with the share of the Peninsula decreasing slightly from 82.7 per cent in 1980 to 82.1 per cent in 1985. Sabah and Sarawak accounted for 8.1 per cent and 9.8 per cent in 1985 compared with 7.6 per cent and 9.7 per cent, respectively, in 1980.

Annual population growth rates differed significantly among the different ethnic groups, as in previous periods. Within Peninsular Malaysia, the Malay and other Bumiputera population grew at an average annual rate of 2.9 per cent during the period 1981-85 compared with 1.7 per cent for the Chinese and 2.1 per cent for the Indians. These differentials mainly reflected differences in fertility rates among the communities. Consequently, ethnic proportions continued to change, as shown in Table 4-1. In 1985, Malays and other Bumiputera comprised an estimated 56.5 per cent of the population of Peninsular Malaysia, the Chinese 32.8 per cent, and the Indians 10.1 per cent; the corresponding proportions in 1980 were 55.1 per cent, 33.9 per cent, and 10.3 per cent. In Sabah, Bumiputera accounted for 84.2 per cent of the population in 1985, while the Chinese constituted 14.9 per cent compared with 82.9 per cent and 16.2 per cent, respectively, in 1980. In Sarawak, 70.1 per cent of the population were Bumiputera, while 28.7 per cent were Chinese in 1985 compared with 69.6 per cent and 29.2 per cent, respectively, in 1980.

TABLE 4-1
MALAYSIA: POPULATION ESTIMATES BY
ETHNIC GROUP, 1980-90

Ethnic group	1980		1985		1990		Average annual growth rate (%)		
	'000	%	'000	%	'000	%	1981-85	Fourth Plan	1986-90
Peninsular Malaysia (%)	11,473.0 (82.7)	100.0	12,968.8 (82.1)	100.0	14,605.2 (81.7)	100.0	2.5	2.4	2.4
Malay and other Bumiputera	6,324.4	55.1	7,325.6	56.5	8,493.0	58.1	2.9	2.7	3.0
Chinese	3,894.3	33.9	4,248.4	32.8	4,579.2	31.4	1.7	2.0	1.5
Indian	1,178.9	10.3	1,311.9	10.1	1,441.1	9.9	2.1	2.3	1.9
Others	75.4	0.7	82.9	0.6	91.9	0.6	1.9	2.1	2.1
Sabah (%)	1,055.1 (7.6)	100.0	1,279.5 (8.1)	100.0	1,517.4 (8.5)	100.0	3.9	3.5	3.4
Bumiputera ¹	874.6	82.9	1,077.0	84.2	1,294.0	85.3	4.2	3.8	3.7
Chinese	171.1	16.2	191.0	14.9	209.7	13.8	2.2	2.0	1.9
Indian	5.9	0.6	7.2	0.6	8.6	0.6	4.0	2.4	3.6
Others	3.5	0.3	4.3	0.3	5.1	0.3	4.1	2.9	3.4
Sarawak (%)	1,351.1 (9.7)	100.0	1,542.8 (9.8)	100.0	1,754.6 (9.8)	100.0	2.7	2.4	2.6
Bumiputera ²	939.8	69.6	1,080.8	70.1	1,242.2	70.9	2.8	2.5	2.8
Chinese	394.7	29.2	442.9	28.7	490.4	27.9	2.3	2.1	2.0
Indian	3.4	0.2	4.0	0.2	4.6	0.2	3.2	4.4	2.8
Others	13.2	1.0	15.1	1.0	17.4	1.0	2.7	3.1	2.8
Malaysia (%)	13,879.2 (100.0)		15,791.1 (100.0)		17,877.2 (100.0)		2.6	2.5	2.5

Notes:

¹ Includes all the indigenous ethnic groups in Sabah, Malay, Sino-natives and Natives of Sarawak.

² Includes Malays, Melanau, Ibans, Bidayuh and other indigenous.

Age structure. There were differences in growth rates among Malaysians of different age groups, as shown in Table 4-2. The population of children below the age of 15 grew at an annual average rate of 1.7 per cent during the period 1981-85. This was lower than the growth rate of 2.3 per cent among adolescents and young adults, defined as those aged 15-24, and the growth rate of 3.6 per cent for persons aged 25-64. The elderly, that is those aged 65 and above, grew at an annual rate of 2.5 per cent. Arising from these differential growth rates, the composition of the population by age had changed, such that there was a smaller fraction of the population under 15 and a rising proportion of those in the working ages of 15 to

TABLE 4-2
MALAYSIA: POPULATION SIZE AND AGE STRUCTURE, 1980-90

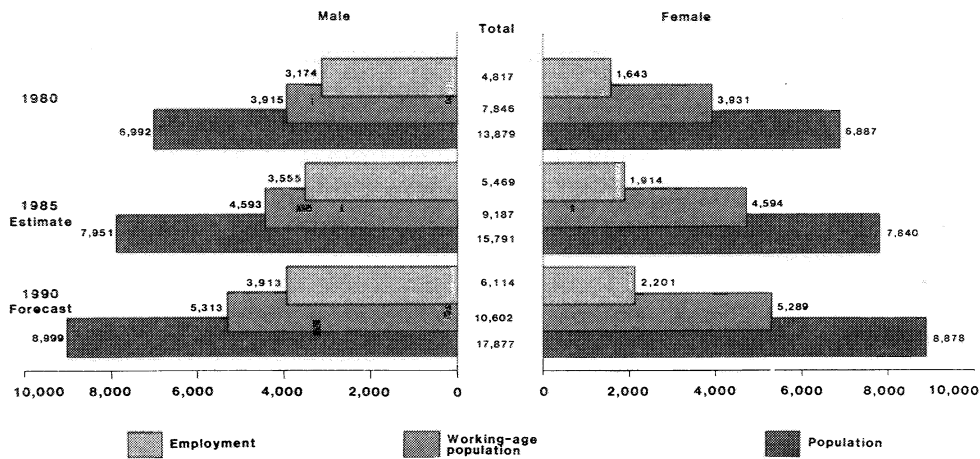
Age group	1980		1985		1990		Average annual growth rate (%)	
	'000	%	'000	%	'000	%	1981-85	1986-90
Peninsular Malaysia	11,473.0	100.0	12,968.8	100.0	14,605.2	100.0	2.5	2.4
0 - 14	4,484.0	39.1	4,835.1	37.3	5,263.2	36.0	1.5	1.7
15 - 24	2,436.9	21.2	2,726.3	21.0	2,891.0	19.8	2.2	1.2
25 - 39	2,301.2	20.1	2,789.2	21.5	3,333.7	22.8	3.8	3.6
40 - 54	1,310.0	11.4	1,535.3	11.8	1,833.3	12.6	3.2	3.5
55 - 64	515.7	4.5	605.6	4.7	721.3	4.9	3.2	3.5
65+	425.2	3.7	477.3	3.7	562.7	3.9	2.3	3.3
Sabah	1,055.1	100.0	1,279.5	100.0	1,517.4	100.0	3.9	3.4
0 - 14	471.0	44.6	575.1	44.9	667.2	44.0	4.0	3.0
15 - 24	228.5	21.7	244.8	19.1	287.6	19.0	1.4	3.2
25 - 39	201.0	19.1	268.5	21.0	324.0	21.4	5.8	3.8
40 - 54	101.7	9.6	123.5	9.7	152.0	10.0	3.9	4.2
55 - 64	34.1	3.2	41.9	3.3	52.7	3.5	4.1	4.6
65+	18.8	1.8	25.7	2.0	33.7	2.1	6.3	5.4
Sarawak	1,351.1	100.0	1,542.8	100.0	1,754.6	100.0	2.7	2.6
0 - 14	587.5	43.5	636.3	41.2	683.5	39.0	1.6	1.4
15 - 24	266.2	19.7	319.5	20.7	372.5	21.2	3.7	3.1
25 - 39	246.9	18.3	299.2	19.4	360.8	20.6	3.8	3.7
40 - 54	142.2	10.5	164.0	10.6	195.1	11.1	2.9	3.5
55 - 64	61.2	4.5	69.0	4.5	77.6	4.4	2.4	2.3
65+	47.1	3.5	54.8	3.6	65.1	3.7	3.0	3.4
Malaysia	13,879.2	100.0	15,791.1	100.0	17,877.2	100.0	2.6	2.5
0 - 14	5,542.5	39.9	6,046.5	38.3	6,613.9	37.0	1.7	1.8
15 - 24	2,931.6	21.2	3,290.6	20.9	3,551.2	19.8	2.3	1.5
25 - 39	2,749.1	19.8	3,356.9	21.3	4,018.6	22.5	4.0	3.6
40 - 54	1,553.9	11.2	1,822.8	11.5	2,180.4	12.2	3.2	3.6
55 - 64	611.0	4.4	716.5	4.5	851.6	4.8	3.2	3.5
65+	491.1	3.5	557.8	3.5	661.5	3.7	2.5	3.4

64 as well as those aged 65 and above. The overall age dependency ratio, that is, of dependents to every 100 persons of working age, thus, fell from 76.9 in 1980 to 71.9 in 1985. The economic dependency ratio also fell from 1:1.88 in 1980 to 1:1.83 in 1985. This meant that in 1985 each employed person supported 1.83 other persons. Chart 4-1 reflects the age and economic dependency ratios.

Fertility. The period 1980-83 saw a continuation of the declining trend in overall fertility in Malaysia. This was not the case, however, for every ethnic group. Among the Malays and other Bumiputera in Peninsular Malaysia, there was an upward trend in fertility in the early 1980s stemming mainly from an increase in third, fourth, and fifth births. In 1983, the total fertility rate (TFR) for Malays and other Bumiputera was 4.53 compared with 4.47 in 1980. This meant that Malay and other Bumiputera women had on average 4.53 children in 1983. By contrast, Chinese and Indian fertility continued to fall sharply. In 1983, the TFR of these two communities were 2.72 and 3.00 compared with 3.14 and 3.38, respectively, in 1980.

The recent upward trend in Malay and other Bumiputera fertility was partly due to the maintenance of large family size among later-marrying couples. An additional factor was the decline in the level of acceptance of family planning among Malay and other Bumiputera couples during this period. The decline in

CHART 4 - 1
MALAYSIA : POPULATION AND EMPLOYMENT,
1980, 1985, AND 1990
('000)



Chinese and Indian fertility was explained partly by the rising age at first marriage as well as the increasing use of contraception within marriage. The trends in fertility among the Chinese and Indians clearly reflect a desire for a smaller family size than in the past. There was also some decline in fertility among all communities in Sabah and Sarawak, although fertility of the indigenous groups in these states was considerably higher than for the Malays and other Bumiputera in the Peninsula. The indigenous groups in Sabah had, on average, six children, while those in Sarawak, five children.

Mortality. The steady improvements in mortality rates continued into the 1980s. In Peninsular Malaysia, infant mortality per thousand live births was 17.5 in 1984 compared with 23.9 in 1980. There were, however, differences among ethnic groups. Infant mortality was highest among the Malays and other Bumiputera at 20.1 and lowest among the Chinese at 10.5 in 1984. These differentials in infant mortality partly accounted for differences in life expectancy at birth. In Peninsular Malaysia, life expectancy was 70.1 years; with the Malays and other Bumiputera at 69.6, the Chinese 72.6, and the Indians 65.4. Although life expectancy was lower in Sabah and Sarawak than in the Peninsula, there had been significant gains on account of improvements in nutrition, family hygiene, and lower incidence of diseases, resulting from the spread and upgrading of medical and health services as well as improvements in the socio-economic conditions in these states. In 1980, life expectancy at birth was 63 in Sabah and 66 in Sarawak.

Population by stratum. The period 1981-85 saw a faster rate of urbanization. Factors that contributed towards it included increasing rural-urban migration, the high rate of natural increase in urban population, growth of new urban centres as well as extension of administrative urban areas. The share of population in urban areas increased from 34.2 per cent in 1980 to 37.4 per cent in 1985, as shown in Table 4-3. In Peninsular Malaysia, its share was much higher at 41.1 per cent in 1985 compared with 22.6 per cent for Sabah and 19.2 per cent for Sarawak. By race, the Malay and other Bumiputera urban population of Peninsular Malaysia increased fastest, raising its proportion in urban areas to 41.3 per cent in 1985 compared with 37.4 per cent in 1980, as shown in Table 4-4. Chinese and Indians accounted for 47.2 per cent and 10.7 per cent, respectively, of the total urban population in 1985.

Outlook, 1986-90

Population growth. The population of Malaysia is expected to grow from 15.8 million in 1985 to 17.9 million in 1990, at an average growth rate of 2.5 per cent per annum. Variations in annual growth rates among the Peninsula, Sabah, and Sarawak will continue, with further declines in the proportion of Malaysians living in the Peninsula.

The current differentials in ethnic population growth rates are projected to continue and widen over the coming years. In Peninsular Malaysia, the higher

fertility of the Malays and other Bumiputera will raise their proportion from 56.5 per cent in 1985 to 58.1 per cent in 1990. Correspondingly, the proportion of non-Bumiputera will decline in line with their falling fertility rates.

The rates of growth of the different age groups are expected to continue to vary considerably during the period 1986-90, as shown in Table 4-2. The net effect of such variations is that there is an expected decline in the proportion of the population under 15, from 38.3 per cent in 1985 to 37.0 per cent in 1990, and increase in the proportion of those in the ages 15 to 64, from 58.2 per cent to 59.3 per cent. Although there will be an increase in the number of persons aged 65 and above, this group will account for 3.7 per cent of the population of Malaysia in 1990 compared with 3.5 per cent in 1985. Arising from these changes, the overall age dependency ratio will decline from 71.9 in 1985 to 68.6 in 1990, thereby enhancing the potential for overall savings in the economy.

The TFR is expected to fall moderately from 3.8 in 1985 to 3.5 in 1990. The ethnic differentials in fertility will, however, continue to remain. In the Peninsula, the fertility of the Malays and other Bumiputera is expected to decline to 4.0 by 1990, while Chinese and Indian fertility will be about one half of that level. Fertility of the indigenous groups in Sabah and Sarawak will remain high at 5.4 and 4.5, respectively.

Urbanization. The growth rate of the urban population is envisaged to remain high throughout the Fifth Plan period as a result of the expansion of the modern sector and existing towns as well as greater rural-urban migration. The urban population is expected to increase at a rate of 4.2 per cent per annum from 5.9 million in 1985 to about 7.3 million by 1990, as shown in Table 4-3. Consequently, the proportion of urban population to the total population is expected to grow from 37.4 per cent to 40.7 per cent during the period.

With the increasing movement of the Malays and other Bumiputera into the urban areas, it is expected that their population will continue to register the highest rate of growth of 6.0 per cent per annum. Consequently, the urban Malay and other Bumiputera population is projected to increase from 2.2 million to 3.0 million during the period, while their share of the total urban population will rise from 41.3 per cent to 45.6 per cent, as shown in Table 4-4. Malays and other Bumiputera, therefore, will constitute the largest ethnic group of the total urban population of Peninsular Malaysia by 1990. The annual rates of growth of Chinese and Indian urban population are expected to be at 2.5 per cent and 3.0 per cent, respectively. The Chinese will account for 43.7 per cent of the total urban population in 1990 compared with 10.1 per cent for the Indians.

New population policy. Fertility trends in the medium term are in line with attaining the population target of 70 million by the year 2100. The Government will continue to monitor closely current population trends to ensure that the target is achieved. With the enunciation of the new population policy, efforts will be undertaken towards increasing the awareness on the patterns of family building and relationships and about the means of timing and controlling births

TABLE

MALAYSIA: POPULATION DISTRIBUTION
(^{'000})

	1980					1985				
	Urban	%	Rural	%	Total	Urban	%	Rural	%	Total
Peninsular Malaysia	4,304.4	90.6	7,168.6	78.5	11,473.0	5,326.4	90.1	7,642.4	77.4	12,968.8
(%)	(37.5)		(62.5)		(100.0)	(41.1)		(58.9)		(100.0)
Sabah	210.6	4.4	844.5	9.3	1,055.1	289.4	4.9	990.1	10.0	1,279.5
(%)	(20.0)		(80.0)		(100.0)	(22.6)		(77.4)		(100.0)
Sarawak	238.2	5.0	1,112.9	12.2	1,351.1	296.4	5.0	1,246.4	12.6	1,542.8
(%)	(17.6)		(82.4)		(100.0)	(19.2)		(80.8)		(100.0)
Malaysia	4,753.2	100.0	9,126.0	100.0	13,879.2	5,912.2	100.0	9,878.9	100.0	15,791.1
(%)	(34.2)		(65.8)		(100.0)	(37.4)		(62.6)		(100.0)

TABLE

PENINSULAR MALAYSIA: POPULATION DISTRIBUTION
(^{'000})

Ethnic group	1980					1985				
	Urban	%	Rural	%	Total	Urban	%	Rural	%	Total
Malay & other Bumiputera	1,608.1	37.4	4,716.3	65.8	6,324.4	2,199.7	41.3	5,125.9	67.1	7,325.6
Chinese	2,178.9	50.6	1,715.4	23.9	3,894.3	2,516.4	47.2	1,732.0	22.7	4,248.4
Indian	486.0	11.3	692.9	9.7	1,178.9	570.9	10.7	741.0	9.7	1,311.9
Others	31.4	0.7	44.0	0.6	75.4	39.4	0.8	43.5	0.5	82.9
Total	4,304.4	100.0	7,168.6	100.0	11,473.0	5,326.4	100.0	7,642.4	100.0	12,968.8

4-3

BETWEEN RURAL AND URBAN, 1980-90

1990					Urbanization rate (%)			Average annual growth rate (%)			
					1980	1985	1990	1981-85		1986-90	
Urban	%	Rural	%	Total	Urban	Rural	Urban	Rural	Urban	Rural	
6,527.2	89.6	8,078.0	76.2	14,605.2	37.5	41.1	44.7	4.3	1.3	4.1	1.1
(44.7)		(55.3)		(100.0)							
388.3	5.4	1,129.1	10.7	1,517.4	20.0	22.6	25.6	6.4	3.2	5.9	2.6
(25.6)		(74.4)		(100.0)							
366.3	5.0	1,388.3	13.1	1,754.6	17.6	19.2	20.9	4.4	2.3	4.2	2.2
(20.9)		(79.1)		(100.0)							
7,281.8	100.0	10,595.4	100.0	17,877.2	34.2	37.4	40.7	4.4	1.6	4.2	1.4
(40.7)		(59.3)		(100.0)							

4-4.

BETWEEN RURAL AND URBAN BY ETHNIC GROUP, 1980-90

1990					Urbanization rate (%)			Average annual growth rate (%)					
					1980	1985	1990	1981-85		Fourth Plan		1986-90	
Urban	%	Rural	%	Total	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
2,976.2	45.6	5,516.8	68.3	8,493.0	25.4	30.0	35.0	6.3	1.7	6.1	1.5	6.0	1.5
2,848.7	43.7	1,730.5	21.5	4,579.2	56.0	59.2	62.2	2.9	0.2	3.4	0.0	2.5	0.0
662.4	10.1	778.7	9.6	1,441.1	41.2	43.5	46.0	3.2	1.3	3.7	1.2	3.0	1.0
39.9	0.6	52.0	0.6	91.9	41.6	47.5	43.4	4.5	-0.2	2.8	1.5	0.3	3.6
6,527.2	100.0	8,078.0	100.0	14,605.2	37.5	41.1	44.7	4.3	1.3	4.5	1.1	4.1	1.1

with special emphasis on family development and welfare. Work is also currently being undertaken to develop a comprehensive economic-demographic growth model to evaluate the socio-economic implications of alternative population growth paths as well as the impact of growth on population. Findings from this study will be incorporated into future population planning.

III. LABOUR FORCE AND EMPLOYMENT

Progress, 1981-85

Labour force. The labour force grew at an average rate of 3.0 per cent per annum, increasing from 5.1 million in 1980 to an estimated 5.9 million in 1985. The labour force grew faster than population, due to the increase in the working-age population, defined as those in the age group 15-64, as well as increased overall female labour force participation rates. The growth of the labour force, as shown in Table 4-5, was highest in Sabah at 3.7 per cent partly resulting from the inflow of workers into the state, compared with 2.9 per cent and 3.4 per cent, respectively, for Peninsular Malaysia and Sarawak.

TABLE 4-5
MALAYSIA: LABOUR FORCE GROWTH, 1980-90

Age group	1980		1985		1990		Average annual growth rate (%)	
	'000	%	'000	%	'000	%	1981-85	1986-90
Peninsular Malaysia	4,259.8	100.0	4,907.6	100.0	5,603.3	100.0	2.9	2.7
15-19	556.7	13.1	533.6	10.9	525.6	9.4	-0.8	-0.3
20-34	2,044.6	48.0	2,427.8	49.5	2,780.8	49.6	3.5	2.8
35-44	831.3	19.5	992.7	20.2	1,198.4	21.4	3.6	3.8
45-54	559.3	13.1	654.1	13.3	756.2	13.5	3.2	2.9
55-64	267.9	6.3	299.4	6.1	342.3	6.1	2.2	2.7
Sabah	373.4	100.0	448.4	100.0	536.3	100.0	3.7	3.6
15-19	48.4	13.0	51.0	11.4	63.3	11.8	1.1	4.4
20-34	192.5	51.5	233.7	52.1	266.4	49.7	4.0	2.7
35-44	68.2	18.3	85.0	19.0	112.1	20.9	4.5	5.7
45-54	42.8	11.5	53.4	11.9	64.1	11.9	4.5	3.7
55-64	21.5	5.7	25.3	5.6	30.4	5.7	3.3	3.7
Sarawak	475.7	100.0	561.1	100.0	658.3	100.0	3.4	3.2
15-19	62.4	13.1	73.4	13.1	80.9	12.3	3.3	2.0
20-34	218.6	46.0	264.4	47.1	318.1	48.3	3.9	3.8
35-44	92.1	19.4	109.3	19.5	129.9	19.7	3.5	3.5
45-54	64.4	13.5	72.6	12.9	84.4	12.8	2.4	3.1
55-64	38.2	8.0	41.4	7.4	45.0	6.9	1.6	1.7
Malaysia	5,108.9	100.0	5,917.1	100.0	6,797.9	100.0	3.0	2.8
15-19	667.5	13.1	658.0	11.1	669.8	9.9	-0.3	0.4
20-34	2,455.7	48.1	2,925.9	49.4	3,365.3	49.5	3.6	2.8
35-44	991.6	19.4	1,187.0	20.1	1,440.4	21.2	3.7	3.9
45-54	666.5	13.0	780.1	13.2	904.7	13.3	3.2	3.0
55-64	327.6	6.4	366.1	6.2	417.7	6.1	2.2	2.7

The labour force continued to be young, with about 61 per cent in the age group 15-34 during the period 1981-85. The number of new labour market entrants aged 15-19, however, declined at 0.3 per cent per annum, arising mainly from the increasing trend towards the retention of youth within the education system up to upper secondary education. Accordingly, the share of those aged 15-19 in the total labour force declined from 13.1 per cent in 1980 to 11.1 per cent in 1985.

Employment growth. Total employment grew at an annual rate of 2.6 per cent during the period 1981-85, as shown in Table 4-6, compared with 3.6 per cent during the period 1976-80. The general slowdown in output growth during the Fourth Plan period affected the employment creation capacity of the economy, resulting in a slower rate of job creation, particularly in manufacturing, mining, and agriculture. While 808,200 people entered the labour force during the period, the economy generated only about 651,600 new jobs. The unemployment rate, thus, rose from 5.7 per cent in 1980 to 7.6 per cent in 1985, as shown in Chart 4-2.

Out of the total number of jobs created during the period 1981-85, about one quarter was accounted for by the *Government services* sector, the second largest job generator. Much of the expansion in employment in this sector occurred during the early part of the period as a result of the *Isi Penuh* exercise. In this exercise, the Government undertook to fill vacancies in the sector in order to strengthen its implementation capacity. From mid-1983 onwards, employment growth in this sector moderated, with the partial freeze on both the creation of new posts and recruitment.

Employment in the *construction* sector registered the fastest rate of growth, at 7.0 per cent per annum. This was due mainly to the buoyant construction activities which took place during the earlier part of this period, resulting from large public investments in physical infrastructure as well as private construction activities. A total of 108,500 new jobs was created, the majority of which were for site workers.

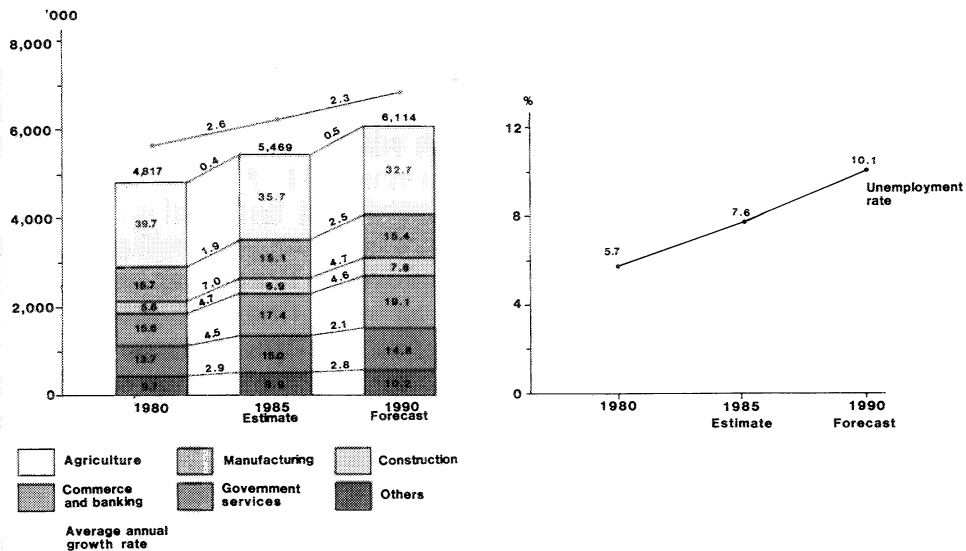
The relatively slower output growth of the *manufacturing* sector during the Fourth Plan period resulted in a lower rate of employment growth. The manufacturing sector, a major generator of jobs in the 1970s, managed to provide only about 72,900 new jobs during the period 1981-85 compared with the Fourth Plan target of 125,800 jobs. The rate of growth of employment in manufacturing, at 1.9 per cent per annum during the period 1981-85, was below the expectation of the Fourth Plan of 3.2 per cent per annum. The Monthly Survey of Manufacturing Industries, Peninsular Malaysia indicated that most of the new jobs generated were accounted for by clothing, electrical machinery including electronics, plastic products, printing and publishing, and basic metal and other non-metallic products. Industries, such as textiles, wood and furniture, chemicals, rubber products, and leather footwear, however, were affected by the economic slowdown and experienced absolute declines in employment.

TABLE 4-6

MALAYSIA: EMPLOYMENT ESTIMATES BY SECTOR, 1980-90

Sector	1980		1985		1990		Increase		Average annual growth rate (%)		
	'000	%	'000	%	'000	%	1981-85	1986-90	1981-85	1986-90	
							'000	'000	Fourth	Plann	
Agriculture, forestry, livestock and fishing	1,910.9	39.7	1,953.2	35.7	2,002.2	32.7	42.3	49.0	0.4	0.7	0.5
Mining and quarrying	80.1	1.7	60.5	1.1	40.5	0.7	-19.6	-20.0	-5.5	-4.7	-7.7
Manufacturing	755.1	15.7	828.0	15.1	941.1	15.4	72.9	113.1	1.9	3.2	2.6
Construction	270.2	5.6	378.7	6.9	476.7	7.8	108.5	98.0	7.0	7.6	4.7
Electricity, gas, and water	31.0	0.6	39.9	0.7	46.0	0.8	8.9	6.1	5.2	3.1	2.9
Transport, storage and communications	209.5	4.3	264.9	4.9	326.9	5.3	55.4	62.0	4.8	6.5	4.3
Wholesale, retail trade, hotels and restaurants	676.2	14.0	846.3	15.5	1,044.4	17.1	170.1	198.1	4.6	3.8	4.3
Finance, insurance, real estate, and business services	78.3	1.6	101.6	1.9	120.9	2.0	23.3	19.3	5.3	3.4	3.5
Government services	658.2	13.7	819.5	15.0	908.3	14.8	161.3	88.8	4.5	5.3	2.1
Other services	147.4	3.1	175.9	3.2	206.7	3.4	28.5	30.8	3.6	4.0	3.3
Total	4,816.9	100.0	5,468.5	100.0	6,113.7	100.0	651.6	645.2	2.6	3.0	2.3
Labour force	5,108.9		5,917.1		6,797.9		808.2	880.8	3.0	3.1	2.8
Unemployment	292.0		448.6		684.2		156.6	235.6			
Unemployment rate (%)	5.7		7.6		10.1						

CHART 4 - 2
MALAYSIA: EMPLOYMENT BY MAJOR SECTOR,
1980, 1985, AND 1990
(%)



Current estimates indicate a total job creation of about 42,300 new jobs in the *agriculture* sector during the period 1981-85 compared with 70,000 anticipated in the Fourth Plan. This shortfall in job creation was mainly due to slower growth performance, rural labour supply constraints, and low investment in this sector. The shortage of labour experienced during the late 1970s, particularly in the plantation sector, continued into the early 1980s, with plantations still reporting shortages¹. The share of the agriculture sector in total employment, thus, fell from about 40 per cent to 36 per cent during the Fourth Plan period.

Employment in *mining* declined from 80,100 in 1980 to 60,500 in 1985, largely due to the fall in employment in tin mining, which is the main component of mining employment, consequent to the closure of marginal tin mines and several tin dredges following the recent world tin market crisis. Employment in other mining activities, particularly petroleum and gas, more or less remained unchanged during the period.

Unemployment. Lower levels of labour utilization were reflected in higher rates of unemployment. Unemployment rose from 5.7 per cent in 1980 to 7.6 per cent in 1985. The number of unemployed in 1985 amounted to 448,600 compared with

¹A 1985 survey conducted by the United Planting Association of Malaysia (UPAM) revealed that their estates were short of 10,000 workers in 1985. This survey covered 471 estates with an average size of 1,448 hectares, and employing a total of 114,195 workers. The bulk of the estates covered were in Johor, Negeri Sembilan, Perak, and Selangor.

292,000 in 1980. A profile of unemployment, based on the latest labour force survey, showed that unemployment was very high among the young, particularly among those in the 15-19 and 20-24 age groups. The unemployment rates among these age groups were about three times that of the overall rate. The incidence of unemployment, however, reduced sharply for age groups above 25. An increasing proportion of the unemployed had formal education, with the incidence of unemployment highest among those with secondary education. Female unemployment rate continued to be higher than that of males, with the incidence of unemployment greater among females with education, in particular secondary education.

A large proportion of the unemployed were first-time job seekers. Recent data indicated that about 50 per cent of the unemployed in Peninsular Malaysia, 70 per cent in Sabah, and 50 per cent in Sarawak were first-time job seekers. The difficulty of entry into the labour market was also evidenced by the long duration of unemployment. About 25 per cent of the unemployed waited for one year or more before being employed. The waiting period for employment was longer for females than for males.

Productivity and wages. Improvements in the education and skill level of the labour force as well as wider use of new technology and equipment resulted in increases in labour productivity as measured by value added per worker. Overall, value added per worker increased from \$9,280 in 1980 to \$10,850 in 1985. This increase in output per worker was noticeable in most sectors of the economy. Labour productivity in the manufacturing as well as agriculture sectors registered an annual increase of 3.0 per cent. Labour productivity in the services sector increased by 3.2 per cent per annum.

Most sectors of the economy experienced wage increases. Within agriculture, data from the Ministry of Labour indicated that average monthly earnings of oil palm harvesters increased from \$344 per month in 1980 to \$421 per month in 1984 arising from increases in the price of palm oil. Earnings of estate rubber tappers, however, declined from \$259 to \$216 per month due largely to lower rubber prices. In manufacturing, data covering selected industries indicated that wages grew steadily, although the rate of growth varied between occupations. In electronics, monthly earnings of female production operators rose from \$222 in 1980 to \$517 in 1983, while that of production supervisors increased from \$484 to \$1,473 during the same period. Wage differentials continued to exist for workers performing the same job in different industries. Generally, industries producing tobacco products, motor vehicle parts, chemical products, and industrial machinery and parts paid higher wages than other industries. Wages tended to differ according to the location of enterprises, with wages being higher in more developed areas where competition for labour was higher. Wage differentials between males and females for similar occupations, although narrowing, continued to exist in many industries.

Occupational structure. The occupational structure of employment for the period 1981-85 is shown in Table 4-7. All the occupational groups experienced rates of growth which were higher than the growth rate for total employment, except agricultural workers. The agricultural workers category grew slowly at 0.5 per cent per annum and its share of employment declined from 38.7 per cent in 1980 to 34.9 per cent in 1985. Service workers recorded the highest growth rate of 4.7 per cent per annum due mainly to the growth of the service industries. This was followed by the professional and technical workers category which grew at 4.4 per cent per annum, increasing its share of total employment from 6.0 per cent in 1980 to 6.5 per cent in 1985. The increase was largely due to the continuing high demand for teachers and health personnel in line with the efforts to provide greater access to social services. Production workers registered the highest increase in absolute terms from 1.4 million in 1980 to 1.6 million in 1985, the majority of whom were employed in the construction, manufacturing, and transport sectors. Table 4-8 shows employment growth by occupational groups and sectors.

Prospects, 1986-90

Labour force. The working-age population is expected to grow at 2.8 per cent per annum during the period 1986-90. The number available to the labour market will depend on the labour force participation rate (LFPR)². Based on recent trends in overall LFPRs, it is estimated that the labour force during the period 1986-90 will reach 6.8 million, or an increase of 2.8 per cent per annum. About 880,800 additional entrants will join the labour market during the Plan period. Females will account for about 35 per cent of the total labour force during the period.

Employment growth. The prospects for employment growth are expected to decline during the Plan period consequent to the anticipated slower growth of output in the economy. The fall in commodity prices and demand for goods and services produced in the country will affect output growth, resulting in increasing underutilization of labour resources. Further retrenchments and displacement of existing workers can, therefore, be expected. Moreover, it is expected that sectors, such as Government services, which traditionally were major generators of employment will account for less of the new jobs created. Manufacturing, trade and commerce, and tourism are expected to provide new employment opportunities for the increasing number of young and educated persons who are joining the labour force. The demand for labour is expected to increase by 2.3 per cent annually during the period 1986-90. A total number of 645,200 new jobs is expected to be created during the period. With this slower rate of growth of employment, it is expected that the unemployment rate will increase further to 10.1 per cent in 1990 from 7.6 per cent in 1985, as shown in Table 4-6.

² LFPR reflects the ratio of the labour force to the working-age population.

TABLE 4-7
MALAYSIA: EMPLOYMENT ESTIMATES BY MAJOR OCCUPATIONAL GROUP,
1980-90

Occupational group	Employment				Increase				Average annual growth rate (%)				
	1980 ¹		1985		1981-85		1986-90		1981-85	Fourth Plan 1986-90			
	'000	%	'000	%	'000	%	'000	%					
Professional and technical	288.1	6.0	356.7	6.5	405.6	6.6	68.6	10.5	48.9	7.6	4.4	4.8	2.6
Administrative and managerial	51.4	1.0	62.0	1.1	73.9	1.2	10.6	1.6	11.9	1.8	3.8	3.9	3.6
Clerical	350.9	7.3	415.8	7.6	471.6	7.7	64.9	10.0	55.8	8.7	3.5	3.7	2.6
Sales	471.1	9.8	570.9	10.5	682.4	11.2	99.8	15.3	111.5	17.3	3.9	3.2	3.6
Service	418.2	8.7	527.0	9.6	624.7	10.2	108.8	16.7	97.7	15.1	4.7	4.8	3.5
Agricultural	1,864.4	38.7	1,907.4	34.9	1,955.9	32.0	43.0	6.6	48.5	7.5	0.5	0.8	0.5
Production	1,372.8	28.5	1,628.7	29.8	1,899.6	31.1	255.9	39.3	270.9	42.0	3.5	4.5	3.1
Total	4,816.9	100.0	5,468.5	100.0	6,113.7	100.0	651.6	100.0	645.2	100.0	2.6	3.0	2.3

Note :

¹ Estimates are derived on the basis of data from the Population and Housing Census, 1980.

The rapid growth of the *Government services* sector experienced in the past is not expected to continue into the Fifth Plan period in view of the budgetary constraints faced by the Government as well as its aim to limit the expansion of employment in this sector. The Government services sector is, therefore, expected to account for about 14 per cent of total new employment during the period 1986-90 compared with 25 per cent during the period 1981-85.

The *agriculture* sector is expected to continue to play a less significant role in the generation of new employment opportunities during this period due mainly to the slower output growth anticipated for several major commodities. During the period 1986-90, agricultural employment is expected to grow at 0.5 per cent per annum. A major portion of the new jobs created are expected to come from new land development undertaken by land development agencies. The conversion of mining land for agricultural purposes, wherever feasible, is also expected to create additional employment opportunities, particularly for retrenched mine workers.

The *construction* sector, which was the fastest growing sector during the period 1981-85, is expected to generate fewer employment opportunities in view of the slowdown in construction activities during the period 1986-90, resulting from the reduced growth of public expenditure on infrastructure and private construction activities. The special programme to construct an additional 80,000 low cost housing units annually during the period 1986-88 as part of the overall measures to boost growth and employment is, however, expected to add impetus to job creation in the sector. It is estimated that construction activities, particularly in low and medium-cost housing, will account for 98,000 new jobs during the Fifth Plan period. This represents an annual average growth of 4.7 per cent.

The *wholesale and retail trade, hotels and restaurants* sector is expected to account for 198,100 new jobs during the period 1986-90, or 30.7 per cent of total new employment generated during this period. With increasing urbanization, the pressure on employment generation will be felt in the urban sector. Given the general slowdown in the employment generating capacity of the economy as well as the slower pace of employment growth in the Government services sector, it is envisaged that employment in the wholesale and retail sector will increase significantly. This is because retail trade is relatively easy to enter as not much capital and skills are required. There is also substantial scope for increased employment in the hotel and restaurant business, especially with the current promotion on tourism.

Concomitant with the anticipated higher output growth in manufacturing during the period 1986-90, it is expected that employment in the *manufacturing* sector will grow at a rate of 2.6 per cent per annum, accounting for 17.5 per cent of total new jobs. Subsectors that are expected to feature prominently in the creation of output and jobs are metal products, non-metallic mineral products, non-electrical machinery, and transport equipment. With the increasing emphasis on

TABLE 4-8

MALAYSIA: EMPLOYMENT BY SECTOR AND MAJOR OCCUPATIONAL GROUP, 1980-90

Sector	Professional and technical workers		Administrative and managerial workers		Clerical workers		Sales workers		Service workers		Agricultural workers		Production workers		Total	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
1980																
Primary ¹ (%)	3.8 (0.2)	1.3	1.9 (0.1)	3.7	17.2 (0.9)	4.9	9.6 (0.5)	2.0	7.6 (0.4)	1.8	1,824.9 (95.5)	97.9	45.9 (2.4)	3.3	1,910.9 (100.0)	39.7
Secondary ² (%)	31.8 (2.4)	11.0	25.4 (1.9)	49.4	90.8 (6.9)	25.9	14.9 (1.2)	3.2	21.0 (1.6)	5.0	9.2 (0.7)	0.5	1,121.8 (85.3)	81.7	1,314.9 (100.0)	27.3
Tertiary ³ (%)	252.5 (15.9)	87.7	24.1 (1.5)	46.9	242.9 (15.2)	69.2	446.6 (28.1)	94.8	389.6 (24.5)	93.2	30.3 (1.9)	1.6	205.1 (12.9)	15.0	1,591.1 (100.0)	33.0
Total (%)	288.1 (6.0)	100.0	51.4 (1.0)	100.0	350.9 (7.3)	100.0	471.1 (9.8)	100.0	418.2 (8.7)	100.0	1,864.4 (38.7)	100.0	1,372.8 (28.5)	100.0	4,816.9 (100.0)	100.0
1985																
Primary (%)	4.2 (0.2)	1.2	2.1 (0.1)	3.4	17.4 (0.9)	4.2	9.9 (0.5)	1.7	8.0 (0.4)	1.5	1,863.6 (95.4)	97.7	48.0 (2.5)	2.9	1,953.2 (100.0)	35.7
Secondary (%)	36.8 (2.4)	10.3	28.8 (1.9)	46.4	102.0 (6.7)	24.5	16.5 (1.1)	2.9	22.6 (1.5)	4.3	9.4 (0.6)	0.5	1,316.0 (85.8)	80.8	1,532.1 (100.0)	28.0
Tertiary (%)	315.7 (15.9)	88.5	31.1 (1.6)	50.2	296.4 (14.9)	71.3	544.5 (27.5)	95.4	496.4 (25.0)	94.2	34.4 (1.7)	1.8	264.7 (13.4)	16.3	1,983.2 (100.0)	36.3
Total (%)	356.7 (6.5)	100.0	62.0 (1.1)	100.0	415.8 (7.6)	100.0	570.9 ^a (10.5)	100.0	527.0 (9.6)	100.0	1,907.4 (34.9)	100.0	1,628.7 (29.8)	100.0	5,468.5 (100.0)	100.0
1990																
Primary (%)	4.6 (0.2)	1.1	2.2 (0.1)	3.0	17.8 (0.9)	3.8	10.1 (0.5)	1.5	8.4 (0.4)	1.3	1,908.9 (95.4)	97.6	50.2 (2.5)	2.6	2,002.2 (100.0)	32.7
Secondary (%)	43.2 (2.4)	10.7	32.7 (1.8)	44.2	115.5 (6.5)	24.5	18.8 (1.1)	2.7	24.7 (1.4)	4.0	9.7 (0.5)	0.5	1,540.6 (86.3)	81.1	1,785.2 (100.0)	29.2
Tertiary (%)	357.8 (15.4)	88.2	39.0 (1.7)	52.8	338.3 (14.5)	71.7	653.5 (28.1)	95.8	591.6 (25.4)	94.7	37.3 (1.6)	1.9	308.8 (13.3)	16.3	2,326.3 (100.0)	38.1
Total (%)	405.6 (6.6)	100.0	73.9 (1.2)	100.0	471.6 (7.7)	100.0	682.4 (11.2)	100.0	624.7 (10.2)	100.0	1,955.9 (32.0)	100.0	1,899.6 (31.1)	100.0	6,113.7 (100.0)	100.0
Increase, 1981-85																
Primary (%)	0.4 (0.9)	0.6	0.2 (0.5)	1.9	0.2 (0.5)	0.3	0.3 (0.7)	0.3	0.4 (0.9)	0.4	38.7 (91.5)	90.0	2.1 (5.0)	0.8	42.3 (100.0)	6.5

Secondary (%)	5.0 (2.3)	7.3 (1.6)	3.4 (1.6)	32.1 (5.2)	11.2 (5.2)	17.3 (0.7)	1.6 (0.7)	1.6	1.6 (0.7)	1.5	0.2 (0.1)	0.5	194.2 (89.4)	75.9	217.2 (100.0)	33.3
Tertiary (%)	63.2 (16.1)	92.1 (1.8)	7.0 (1.8)	66.0 (13.7)	53.5 (13.7)	82.4 (25.0)	97.9 (25.0)	106.8 (27.2)	98.1 (27.2)	98.1	4.1 (1.0)	9.5	59.6 (15.2)	23.3	392.1 (100.0)	60.2
Total (%)	68.6 (10.5)	100.0	10.6 (1.6)	100.0	64.9 (10.0)	100.0	99.8 (15.3)	108.8 (16.7)	100.0	100.0	43.0 (6.6)	100.0	255.9 (39.3)	100.0	651.6 (100.0)	100.0
Increase, 1986-90																
Primary (%)	0.4 (0.8)	0.8 (0.2)	0.1 (0.2)	0.8 (0.8)	0.4 (0.8)	0.7 (0.4)	0.2 (0.4)	0.4 (0.8)	0.4 (0.8)	0.4	45.3 (92.5)	93.4	2.2 (4.5)	0.8	49.0 (100.0)	7.6
Secondary (%)	6.4 (2.5)	13.1	3.9 (1.6)	32.8 (5.3)	13.5 (5.3)	24.2 (9.9)	2.3 (0.9)	2.1 (0.8)	2.1 (0.8)	2.2	0.3 (0.1)	0.6	224.6 (88.8)	82.9	253.1 (100.0)	39.2
Tertiary (%)	42.1 (12.3)	86.1	7.9 (2.3)	66.4 (12.2)	41.9 (12.2)	75.1 (31.8)	109.0 (31.8)	95.2 (27.7)	97.4 (27.7)	97.4	2.9 (0.8)	6.0	44.1 (12.9)	16.3	343.1 (100.0)	53.2
Total (%)	48.9 (7.6)	100.0	11.9 (1.8)	100.0	55.8 (8.7)	100.0	111.5 (17.3)	97.7 (15.1)	100.0	100.0	48.5 (7.5)	100.0	270.9 (42.0)	100.0	645.2 (100.0)	100.0
Average annual growth rate, 1981-85 (%)																
Primary	2.0	2.0	2.0	2.0	2.0	0.2	0.6	1.0	1.0	1.0	0.4	0.4	0.9	0.9	0.4	0.4
Secondary	3.0	3.0	2.5	2.5	2.4	2.4	2.1	1.5	1.5	1.5	0.4	0.4	3.2	3.2	3.1	3.1
Tertiary	4.6	4.6	5.2	5.2	4.1	4.1	4.0	5.0	5.0	5.0	2.6	2.6	5.2	5.2	4.5	4.5
Total	4.4	4.4	3.8	3.8	3.5	3.5	3.9	4.7	4.7	4.7	0.5	0.5	3.5	3.5	2.6	2.6
Average annual growth rate, 1986-90 (%)																
Primary	1.8	1.8	0.9	0.9	0.5	0.5	0.4	1.0	1.0	1.0	0.5	0.5	0.9	0.9	0.5	0.5
Secondary	3.3	3.3	2.6	2.6	2.5	2.5	2.6	1.8	1.8	1.8	0.6	0.6	3.2	3.2	3.1	3.1
Tertiary	2.5	2.5	4.6	4.6	2.7	2.7	3.7	3.6	3.6	3.6	1.6	1.6	3.1	3.1	3.2	3.2
Total	2.6	2.6	3.6	3.6	2.6	2.6	3.6	3.5	3.5	3.5	0.5	0.5	3.1	3.1	2.3	2.3

Notes:

- ¹ Agriculture, forestry, livestock, and fishing.
- ² Mining and quarrying, manufacturing, construction, and transport, storage, and communications.
- ³ Trade, financial services, Government services, utilities, and other services.

export expansion and efficiency in output, production techniques will become more sophisticated. Consequently, there will be an increasing demand for skilled labour.

The *finance, insurance, real estate, and business services* sector is expected to generate 19,300 new jobs during the period 1986-90 compared with 23,300 during the period 1981-85. The lower rate of employment growth will be largely due to the fact that the number of financial institutions are not expected to increase significantly during the next few years. In addition, the increasing automation of banking and financial services in order to increase efficiency and productivity will moderate the capacity of this sector to generate jobs.

Unemployment. Current estimates indicate that about 684,200 will be unemployed in 1990. This means that the unemployment rate will be 10.1 per cent in 1990 compared with 7.6 per cent in 1985. The majority of those unemployed are expected to be secondary school leavers and graduates in the age group 15-24. These new entrants into the labour force will tend to have more academic rather than work-related skills. Greater efforts to provide them with relevant skills and improve their employability will, therefore, be made. The Government will continue to provide improved labour market services and information, and will monitor closely labour market trends. The orientation or preference of job seekers for white-collar jobs, however, will have to change in line with the greater requirements for skilled workers. In addition, self-employment will also be emphasized in view of the economic slowdown, particularly in the mining sector. A change of attitudes is also called for. New entrants into the labour force will have to be more self-reliant, motivated, and competitive.

The Government will continue to take appropriate measures to reduce the level of unemployment in the country. Apart from the measures mentioned earlier of constructing an additional 80,000 low-cost housing units annually during the period 1986-88 and converting mining land for agricultural purposes, the Government will undertake road and minor works, which are labour intensive, in rural and other depressed urban areas. These include the construction of secondary and feeder roads to support agriculture and small-scale industrial activities in those areas. The speedy implementation of the highway construction programme, including upgrading works, will also be emphasized. The increasing utilization of local materials, such as cement, steel, and other construction materials, will also generate additional employment opportunities.

With a view to generating additional employment in the agriculture sector, land will be made accessible to the private sector for the cultivation of viable plantation crops, cash crops, and aquaculture. At the same time, small-scale and rural village industries will be revitalized in order to provide new employment opportunities as well as supplementary sources of income for rural households.

Measures will also be taken to generate more self-employment, particularly in the urban areas, through the deregulation of the hawker industry. Local authorities will consider relaxing, or abolishing the licensing of hawkers, except for some special trades. This will be complemented with the setting up of more night markets and agricultural markets.

A crash programme for training and retraining the unemployed in marketable trades will be undertaken and a core of voluntary professionals and graduates will be developed for use in specific projects in view of rising graduate unemployment. Effective measures will be taken to prevent new influx of migrant workers, while all illegal migrants, especially those who are unemployed or self-employed in the services sector, will be deported.

Occupational structure. With the anticipated decline in overall employment growth, most of the occupational groups are expected to grow at slower rates compared with the period 1981-85, as shown in Table 4-7. Nevertheless, all the occupational groups are expected to grow at rates higher than total employment growth, except for the agricultural workers category. The professional and technical workers group is expected to grow at 2.6 per cent per annum. Much of the growth will be due to the continued demand for primary and secondary school teachers, followed by medical and health personnel such as doctors and nursing staff. Increased demand is also anticipated for engineers and engineering assistants to meet the needs of the manufacturing sector, where the manpower requirements will be for more high-level and specialized skills. The number of sales and service workers will be expected to increase at rates of 3.6 per cent and 3.5 per cent per annum, respectively, due mainly to the anticipated growth of the service industries, particularly the wholesale and retail trade sector, the tourist industry, and the hotel and restaurant industry. Most of the increase in employment, however, will be in the production workers category, in line with the anticipated growth of the manufacturing and construction sectors.

IV. MANPOWER DEVELOPMENT

Progress, 1981-85

The slower growth of the economy led to some deceleration in the demand for various types of manpower during this period. Labour market information indicated a decrease in the number of vacancies and emplacements in the job market, particularly for agricultural and production workers. The quarterly Employment Turnover Survey (ETS) also showed a decline in the turnover rates by occupation, with a substantial number of skilled occupations having turnover rates of less than 5 per cent by the first half of 1983. At the professional level, an increase in the number of job registrants was recorded at the Professional Employment Bureau of the Ministry of Labour at the end of 1984, indicating greater difficulty among degree and diploma holders in securing suitable employment. This was partly attributed to the partial freeze on the creation of new posts and recruitment in the public sector.

Despite overall slack in manpower demand, skill-specific shortages continued to be experienced during this period. At the skilled and semi-skilled levels, the ETS indicated that there were shortages, among others, for machine operators, electronic technicians, machine fitters, blacksmiths, sheet metal workers, and cabinet makers. A study, conducted in 1984 by the Ministry of Labour on industrial training schemes in the manufacturing sector, also confirmed that such shortages existed. There were, however, few critical shortages of skills which required a considerable amount of training.

In the public sector, shortages of certain types of manpower were experienced. According to data from the Central Staff Records of the Public Services Department (PSD), a high vacancy rate averaging 30 per cent was registered for legal, medical, and veterinary officers as well as marine, electronic, and public health engineers. The requirements for manpower in the education and health sectors continued to increase in line with the commitment of the Government to provide greater access to education, medical, and health services. The high demand for teachers continued to be sustained in the light of the increases in school-age population as well as the implementation of the new curriculum for primary schools (KBSR), which called for an increase in the class-teacher ratio from 1:1.2 to 1:1.5. The health sector faced an acute shortage of medical personnel, particularly at the specialist level, as a result of the high turnover of medical doctors and specialists leaving for the private sector, coupled with the expansion of health and medical services. High vacancy rates were registered for specialists, particularly in the fields of general surgery, anaesthesia, orthopaedics, radiology, pathology, ophthalmology, hyperspecialities, and ear, nose, and throat (ENT).

Manpower planning and development was directed at ensuring that manpower shortages would not pose a critical constraint to development. High priority continued to be placed on the expansion and revision of the education and training system in order to meet the requirements for trained manpower effectively as well as to upgrade the productive capacity of the workforce. Increased efforts were made by manpower planning and training institutions to effectively monitor and assess the changing skill requirements of the economy with a view to better equipping the workforce with employable skills.

Steps were, therefore, taken to reorientate and update course content to ensure that skills imparted would be relevant to the skill requirements of the economy. The development of managerial capabilities at all levels was undertaken in line with the growing scale and complexity of business and production enterprises. Emphasis was also directed towards increasing the technological orientation of training programmes to support the industrialization process. The level of productivity and efficiency of the workforce was upgraded through the expansion of in-service training and skill-upgrading programmes at all levels.

High and middle-level manpower. This period saw the continued expansion of local tertiary level education with the setting up of two new universities, namely, the International Islamic University (UIA) and the Northern University of Malaysia (UUM), in addition to the existing five universities and two colleges. Five branch campuses were also set up during this period. Total enrolment in local degree and diploma courses in these institutions, as shown in Table 4-9, increased by 83.8 per cent from 32,300 students in 1980 to 59,300 students in 1985, with enrolment in diploma courses increasing by 104.3 per cent compared with 71.3 per cent for degree courses. While there had been a substantial increase in enrolment in tertiary level education, enrolment at the degree and diploma levels accounted for only 1.7 per cent of total student population enrolled at all levels of education in 1985.

High rates of enrolment were sustained for science and technical courses in line with efforts to increase the output of high and middle-level manpower in the science and technical fields. The output ratio of arts to science and technical courses, thus, improved from 52:48 in 1980 to 50:50 in 1985. Enrolment in applied sciences and engineering expanded, particularly in the fields of electronics, computer science, and industrial engineering, in view of the increasing requirements for such manpower to support industrialization.

At the middle level, the output of diploma holders in the engineering fields increased to meet the demand for subprofessional engineering personnel in the industrial sector. A total of 4,760 diploma holders in engineering was produced compared with 1,780 degree holders. Chart 4-3 shows the output of degree and diploma holders by type of education from local institutions.

The output of arts and humanities graduates, both at the degree and diploma levels, continued to remain at a high level to cater for the requirements of secondary school teachers as well as administrative and managerial personnel. Emphasis was given towards the expansion of enrolment in economics and business studies at the degree level. At the diploma level, courses such as secretarial studies, mass communication, and law and administration were expanded to meet the requirements for manpower in these fields. In order to ensure greater employability of university graduates, steps were also taken by tertiary educational institutions to restructure their course programmes through imparting more management skills as well as incorporating the more practical aspects of training.

A total number of 26,800 students at the degree level graduated during the period 1981-85, of whom 14,800 were in the arts field and 12,000 in the science and technical fields. At the diploma level, a total of 22,800 students was trained, of whom 9,810 were in the arts field and 13,000 in the science and technical fields. A substantial number of Malaysians were also trained overseas. About 26,500 students were enrolled in overseas tertiary institutions in 1985, of whom 20,000 were enrolled in degree courses, while about 6,500 were at diploma level.

TABLE 4-9

MALAYSIA: ENROLMENT AND OUTPUT OF DEGREE AND DIPLOMA HOLDERS BY TYPE
OF EDUCATION FROM LOCAL INSTITUTIONS, 1980-90

Course	Enrolment				Increase (%)				Output			
	1980	1985	1990	1981-85	1986-90	1986	1987	1988	1989	1990	1981-85	1986-90
Degree												
Arts (%)	9,727 (48.6)	17,121 (50.0)	27,476 (48.7)	76.0	60.5	3,451 (46.7)	4,441 (52.3)	5,663 (51.3)	6,501 (54.0)	7,723 (55.7)	14,802 (55.2)	27,779 (52.6)
Arts and humanities ¹	5,347	8,722	12,024	63.1	37.9	2,074	2,522	2,902	3,415	3,662	8,573	14,575
Economics and business ²	4,029	7,770	14,299	92.9	84.0	1,256	1,781	2,577	2,811	3,746	5,775	12,171
Law	351	629	1,153	79.2	83.3	121	138	184	275	315	454	1,033
Science (%)	8,046 (40.2)	12,505 (36.4)	17,748 (31.5)	55.4	41.9	2,962 (40.1)	2,816 (33.2)	3,735 (33.8)	3,775 (31.3)	4,219 (30.4)	9,317 (34.7)	17,507 (33.1)
Medicine and dentistry	1,411	2,248	2,737	59.3	21.8	445	448	444	447	498	1,290	2,282
Agriculture and related sciences ³	729	1,240	1,399	70.1	12.8	316	261	458	334	357	1,037	1,726
Pure sciences ⁴	3,696	3,087	3,865	-16.5	25.2	600	515	726	591	736	3,442	3,168
Others ⁵	2,210	5,930	9,747	168.3	64.4	1,601	1,592	2,107	2,403	2,628	3,548	10,331
Technical (%)	2,245 (11.2)	4,674 (13.6)	11,134 (19.8)	108.2	138.2	972 (13.2)	1,227 (14.5)	1,643 (14.9)	1,769 (14.7)	1,929 (13.9)	2,719 (10.1)	7,540 (14.3)
Engineering	1,668	3,662	9,219	119.5	151.7	672	900	1,089	1,288	1,411	1,780	5,360
Architecture and town planning	338	549	876	62.4	59.6	95	139	329	234	269	457	1,066
Surveying	187	283	455	51.3	60.8	97	67	70	87	85	285	406
Others ⁶	52	180	584	246.2	224.4	108	121	155	160	164	197	708
Total (%)	20,018 (100.0)	34,300 (100.0)	56,358 (100.0)	71.3	64.3	7,385 (100.0)	8,484 (100.0)	11,041 (100.0)	12,045 (100.0)	13,871 (100.0)	26,838 (100.0)	52,826 (100.0)
Diploma												
Arts (%)	5,063 (41.3)	13,126 (52.4)	19,744 (43.4)	159.3	50.4	3,006 (54.6)	3,032 (51.1)	3,532 (50.9)	4,253 (49.5)	4,631 (46.8)	9,808 (42.9)	18,454 (50.1)
Arts and humanities ⁷	1,800	3,979	7,345	121.1	84.6	1,314	1,072	1,341	1,711	1,992	3,444	7,430
Economics and business ⁸	3,263	9,147	12,399	180.3	35.6	1,692	1,960	2,191	2,542	2,639	6,364	11,024

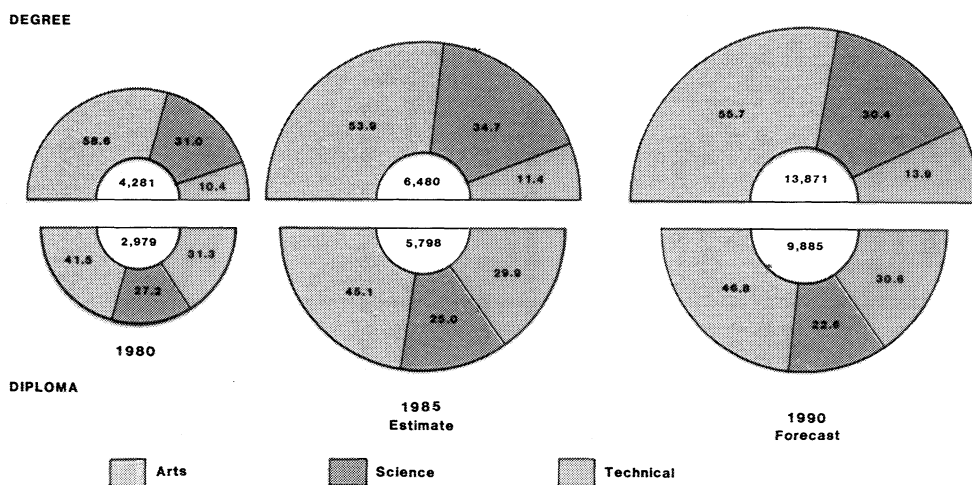
Science (%)	3,279 (26.7)	5,133 (20.5)	10,167 (22.4)	56.5	98.1	1,150 (20.9)	1,397 (23.5)	1,507 (21.7)	1,668 (19.4)	2,231 (22.6)	5,636 (24.7)	7,953 (21.6)
Agriculture and related sciences												
Others ⁹	981	1,847	1,128	88.3	-38.9	541	663	605	483	632	1,646	2,924
Technical (%)	2,298	3,286	9,039	43.0	175.1	609	734	902	1,185	1,599	3,990	5,029
Engineering ¹⁰	3,920 (32.0)	6,787 (27.1)	15,573 (34.2)	73.1	129.5	1,348 (24.5)	1,509 (25.4)	1,898 (27.4)	2,670 (31.1)	3,023 (30.6)	7,404 (32.4)	10,448 (28.3)
Architecture and town planning	2,394	4,865	10,732	103.2	120.6	1,001	1,148	1,391	1,965	2,228	4,757	7,733
Surveying	566	876	2,240	54.8	155.7	167	178	218	331	361	993	1,255
Others ¹¹	612	547	1,355	-10.6	147.7	114	112	167	205	233	1,027	831
Total (%)	348	499	1,246	43.4	149.7	66	71	122	169	201	627	629
	12,262 (100.0)	25,046 (100.0)	45,484 (100.0)	104.3	81.6	5,504 (100.0)	5,938 (100.0)	6,937 (100.0)	8,591 (100.0)	9,885 (100.0)	22,848 (100.0)	36,855 (100.0)

Source: Ministry of Education.

Notes:

- ¹ Include Islamic studies, language, literature and Malay culture, social sciences, library science, and art and design.
- ² Include accountancy, business management, resource economics, and agri-business.
- ³ Include home science technology and human development.
- ⁴ Include biology, chemistry, physics, and mathematics.
- ⁵ Include pharmacy, applied sciences, environmental studies, food technology, and science with education.
- ⁶ Include property management.
- ⁷ Include law and administration, mass communication, art and design, library science, and secretarial studies.
- ⁸ Include accountancy, banking, and hotel management and catering.
- ⁹ Include computer studies, applied sciences, and mathematics.
- ¹⁰ Include building technology, automotive technology, and electronic technology.
- ¹¹ Include property management and material technology.

CHART 4-3
**MALAYSIA: OUTPUT OF DEGREE AND DIPLOMA HOLDERS FROM LOCAL INSTITUTIONS,
 1980, 1985, AND 1990**
 (%)



Skilled and semi-skilled manpower. Significant expansion of programmes for skill training continued during this period to cater for the increased demand for skilled and semi-skilled manpower, as a result of the growth of the manufacturing and construction sectors. An additional three secondary vocational schools, three polytechnics, three Industrial Training Institutes (ITI), and one MARA Vocational Institute (IKM) were established. With the establishment of the above public sector training institutions and the expansion of existing facilities, output of skilled and semi-skilled manpower increased by 38.4 per cent during this period. A total of 79,600 skilled and semi-skilled personnel completed their training, of whom about 59 per cent were in the engineering trades, as shown in Table 4-10 and Table 4-11. Mechanical and electrical trades were given special emphasis in view of the demand for trained workers in these trades.

Despite the high rates of expansion of output from skill training institutions, skill-specific shortages and skill mismatches continued to be a problem. Steps were, therefore, taken by skill training institutions to constantly review their

TABLE 4-10

MALAYSIA: ENROLMENT AND OUTPUT OF SKILLED AND SEMI-SKILLED MANPOWER FROM PUBLIC TRAINING INSTITUTIONS, 1980-90

Institution	Enrolment				Increase (%)		Output					
	1980	1985	1990	1981-85	1986-90	1986	1987	1988	1989	1990	1981-85	1986-90
	Vocational schools	12,675	13,883	35,455	9.5	155.4	8,062	10,605	10,943	13,827	16,658	32,664
Technical schools	5,370	6,230	6,080	16.0	-2.4	2,960	3,040	3,040	3,040	3,040	14,433	15,120
Youth Training Centres	975	750	1,203	-23.1	60.4	810	837	851	852	821	3,792	4,171
Agricultural Institutes	1,017	1,015	1,200	-0.2	18.2	390	400	400	400	400	1,769	1,990
Industrial Training Institutes	1,472	2,843	10,330	93.1	263.4	3,283	4,225	5,716	6,549	7,085	7,829	26,858
MARA Vocational Institutes	4,198	4,801	6,647	14.4	38.5	2,698	3,004	3,340	3,872	4,336	10,794	17,250
MARA Commercial Institutes	323	441	1,100	36.5	149.4	292	300	500	400	600	878	2,092
Tunku Abdul Rahman College	451	1,222	2,358	171.0	93.0	355	435	531	740	884	1,818	2,945
Polytechnics	2,030	5,373	11,995	164.7	123.3	2,003	1,991	2,753	3,203	3,625	5,663	13,575
Total	28,511	36,558	76,368	28.2	108.9	20,853	24,837	28,074	32,883	37,449	79,640	144,096

Sources: Ministry of Education and various institutions.

TABLE 4-11

**MALAYSIA: OUTPUT OF SKILLED AND SEMI-SKILLED MANPOWER
BY COURSE FROM PUBLIC TRAINING INSTITUTIONS,
1981-90**

Course	1986	1987	1988	1989	1990	1981-85	1986-90
Engineering trades	12,531	15,227	17,196	20,156	23,102	47,091	88,212
Mechanical trades ¹	6,687	8,195	9,328	10,957	12,428	24,778	47,595
Electrical trades ²	4,171	5,296	6,036	7,265	8,526	13,543	31,294
Civil engineering trade ³	1,622	1,674	1,770	1,872	1,994	8,621	8,932
Other engineering trades ⁴	51	62	62	62	154	149	391
Building trades ⁵	2,510	3,071	3,671	4,414	5,110	8,162	18,776
Printing trades ⁶	64	116	121	181	193	460	675
Commerce	2,101	2,477	2,872	2,937	3,317	9,230	13,704
Agriculture	1,046	1,053	1,053	1,213	1,373	4,459	5,738
Home Science ⁷	1,186	1,070	1,074	1,394	1,722	5,847	6,446
Others ⁸	737	939	1,208	1,548	1,731	2,954	6,163
Skill-upgrading	678	884	879	1,040	901	1,437	4,382
Total	20,853	24,837	28,074	32,883	37,449	79,640	144,096

Sources: Ministry of Education and various institutions

Notes:

- 1 Include general mechanics, general machining, tool and die making, motor vehicle mechanics, welding, sheet metal works, fabrication, marine engineering, and manufacturing courses.
- 2 Include electrical installation and maintenance, radio and TV servicing, refrigeration and air conditioning, electrical fitting and armature winding, and electronic engineering.
- 3 Include construction.
- 4 Include material technology and food processing technology.
- 5 Include carpentry and joinery, woodwork machining, bricklaying, and plumbing.
- 6 Include hand composing, machine composing, offset printing, bookbinding, and letterpress.
- 7 Include sewing, cooking and catering, cosmetology, and hairdressing.
- 8 Include surveying, architectural draftsmanship, photography, laboratory science dispensing optics, computer programming and information processing, confectionery and hotel catering, heavy plant operation, architecture, and quantity surveying.

curriculum and reorientate their courses to ensure that the training provided was in line with the skill requirements of industry. New courses were introduced to cater for the requirements of employers for new skills as well as to take into account changing technology. Particular emphasis was also placed on the development of managerial and entrepreneurial capabilities at this level to enhance employment opportunities in the labour market.

Apart from institutional training, on-site training and in-service training also contributed to the pool of skilled workers. The on-site training programme for construction workers administered by the Manpower Department trained a total of 1,240 workers during this period. On-site training for construction workers was also administered by agencies like the Urban Development Authority (UDA) and the Public Works Department (PWD). In-service training continued to be carried out by public sector agencies, such as the National Electricity Board (NEB), PWD, the Postal Services Department, and the Telecommunications Department, to meet their own requirements for specialized manpower.

Skill upgrading became more necessary with the establishment of heavy industries and high-technology precision-based industries. The Centre for Instructor and Advanced Skill Training (CIAST), which became operational in 1984, provided skill upgrading and advanced training to a total of 406 craftsmen in automotive, machine operation, die making, foundry, fabrication, electrical, electronic, and instrumentation skills. A total of 390 trade instructors and supervisors was trained during this period. The Standards and Industrial Research Institute of Malaysia (SIRIM) undertook training of workers in the use of more modern technology, machinery, and equipment. Skill upgrading and advanced skill training at the intermediate and advanced levels were also carried out by ITI and IKM. Other measures to upgrade the skills of local workers were undertaken under the Look East training programme administered by PSD. A total of 920 workers was trained under this programme.

Public sector skill training efforts were supplemented by the private sector in the provision of in-service and on-the-job training to cater for their own skill needs. Private sector participation in training was also effected through their involvement in the Manpower Development Board and the National Industrial Training and Trade Certification Board (NITTCB) in the development of trade standards and syllabi for industrial training.

Prospects, 1986-90

The major thrust of manpower development efforts during this period will be directed towards ensuring that the education and training system effectively meets the requirements for trained manpower generated by the growth of the economy. Concrete measures will be taken to ensure that education and training programmes are structured and geared towards making timely and appropriate

responses in meeting the changing skill requirements of the economy, arising out of structural changes envisaged in the manufacturing, agriculture, and services sectors. In this respect, efforts will be made to reduce the academic bias and increase the skill orientation of educational and training programmes. In addition to the acquisition of work-related skills, emphasis will also be given to inculcate and develop positive values and attitudes, such as leadership and entrepreneurial capabilities at all levels, to enhance employment opportunities in the labour market. Tertiary level education will be expanded locally, at high and middle levels, to meet the increasing requirements for professional and technical manpower to support industrialization. Priority will be given to the expansion of courses in the applied arts, applied science, and technical fields to meet the demand for managerial, scientific, and technical skills.

Increased private sector involvement and commitment in skill development will be important in ensuring that industrial training programmes are suitably tailored to the skill needs of industry. The private sector is envisaged to play a major role in establishing the future direction and development of training and the expansion of training opportunities, during the Fifth Plan period. Concomitant with the need to maximize effective utilization of human resources, continuing efforts will be made to enhance productivity and efficiency of the workforce through training, skill upgrading, and retraining programmes.

High and middle-level manpower. The anticipated shift of the economy towards high-technology industries, the increasing importance of research and development, and the efforts of the Government to reduce expenditure on overseas education to save foreign exchange are expected to have an impact on the direction, expansion, and development of education and training programmes at the high and middle levels. In this respect, a medium-range plan for higher education has been formulated to provide guidance on future direction and development of higher education.

Priority will be given towards increasing the output of professional and technical manpower. Emphasis will be placed on expanding enrolment in the applied arts, applied sciences, and technical fields to meet the increasing demand for managerial, scientific, and technical expertise. Enrolment in pure arts will be sustained to meet the continuing demand for secondary school teachers. Enrolment in applied arts will be increased, particularly management courses, in line with the increasing requirements for managers and managerial capability to keep pace with the modernization of the economy. Within the technical field, priority will be given to the expansion of engineering courses at the degree and diploma levels, particularly in electrical and electronic engineering, and mechanical and chemical engineering, in line with the anticipated growth of the electrical and electronics, machinery and engineering, and chemicals and plastics subsectors, as envisaged in the Industrial Master Plan (IMP). Enrolment in pure science will be sustained to cater for the requirements of scientific research personnel in order to strengthen research and development capability.

In order to ensure an effective match between manpower demand and supply at the high and middle levels, course programmes will be constantly monitored and assessed to meet the skill requirements of the economy. Continuing efforts will be made by local tertiary institutions to evaluate, review, and tailor their courses to the requirements of the economy. Programmes will also be restructured to incorporate more management-oriented skills to enhance the employability and marketability of graduates.

Skilled and semi-skilled manpower. The development of skilled manpower will continue to receive high priority to meet the skill demands of the economy, particularly that of the industrial sector. Skill formation at the intermediate and advanced levels will become increasingly important to cater for skill requirements of high-technology and heavy industries. In addition, the development of leadership and entrepreneurial capabilities will be emphasized to enhance employment opportunities in the labour market. In the public sector, the expansion of facilities for industrial training is expected to increase during this period with the coming into operation of five ITIs, 18 secondary vocational schools, and five polytechnics. A total of about 144,100 skilled and semi-skilled workers will be trained during this period, the majority of whom will be in the mechanical and electrical trades.

Public institutional training will be supplemented by in-service training which will be carried out by public sector agencies, such as the Postal Services Department, Telecommunications Department, NEB, and PWD, to meet their own specialized needs for skilled personnel. The National Oil Corporation (PETRONAS) will continue to have its own training programmes to impart skills in drilling technology, electrical and mechanical maintenance, petrochemical processing, and instrumentation. The Heavy Industries Corporation of Malaysia (HICOM) is also planning to set up its own training institute to provide training specific to the manpower needs of heavy industries. Opportunities for on-the-job training in industry will become increasingly important to ensure a proper matching of skill formation with the skill demands of industry.

Skill upgrading and advanced skill training will play an important role in raising the productive capacity and the level of technical competence and expertise of the workforce to meet the challenges of rapid technological change. In this respect, CIIAST will play a leading role through its programme of training for trade instructors and supervisors. A total of about 8,960 skilled workers will receive advanced training in automotive, machine operation, die making, foundry, fabrication, and instrumentation skills. Skill upgrading and advanced skill training programmes undertaken by ITI and IKM will be expanded during this period.

An area of major concern in skill development will be to ensure that expansion and improvements in training will effectively meet the skill requirements of the labour market and that the occurrences of skill-specific shortages and skill

mismatches will be minimal. In view of this, action will be taken in ensuring better accountability of public skill training institutions in terms of evaluating their course programmes and output to ensure greater employability of their graduates as well as the relevance of their training programmes to meet labour market requirements. The measures to be taken include the assessment of the cost-effectiveness of training programmes, regular monitoring of the labour market, and the undertaking of tracer studies.

The cost-effectiveness of training programmes will be assessed as a means of evaluating the efficiency of various modes of training used in the development of manpower. Regular labour market monitoring will be undertaken by skill training agencies to assess short and medium-term changes in the demand for specific types of skills which will have bearing on the types of training programmes to be conducted. Tracer studies will be carried out regularly to assess the employability and the performance of the graduates from skill training institutions to improve the quality and relevance of training programmes. In addition, continuous evaluation and review of existing curriculum and course content will be made to take into account new changes in technology.

Technological change and development will result in some displacement of workers. In this respect, the Ministry of Labour will monitor the need for retraining programmes to reequip displaced workers with new skills for deployment into other high growth sectors or subsectors.

Industrial manpower. The thrust of the IMP towards export-led growth with substantial increases in local manufacturing value added will require more advanced and specialized skills. Such skills will be required as the manufacturing sector is envisaged to move from low-technology assembly and process-type operations towards high-technology product and component manufacturing. The current relatively low ratio of engineers and technicians to production and process workers of 1:35 compared with 1:8 in some industrialized countries will need to be improved to achieve greater productivity and technological development.

Efforts will be made to restructure and expand the programmes of educational and training institutions to meet the increasing demand for engineers and technicians, research and development personnel, and marketing professionals. Emphasis will be placed on enhancing labour utilization towards the objective of attaining a productivity-labour cost mix that promotes competitiveness of Malaysian products in overseas markets.

Effective planning and implementation of industrial training is necessary in order that the skill requirements of industry are met. In cognizance of this, a study was carried out by the Ministry of Labour to evaluate the system of industrial training with a view to establishing a more effective training strategy for industry. The study found that most of the training needs of industry were met through on-the-job training and that only 3 per cent to 5 per cent of the workforce received

institutional training. The low demand for institution-trained graduates by industry was largely due to the fact that industry presently requires relatively simple skills for its assembly and process-type operations which could be imparted on the job. Institutional training will, however, become more important as the manufacturing sector moves towards technology-intensive industries requiring higher levels of skills. The establishment of a national vocational training board which will plan, co-ordinate, and monitor industrial training will be considered. The private sector is expected to play a major role in establishing the future direction and development of training.

Public sector manpower. The consolidation of public sector employment will continue in order to increase productivity and efficiency in the sector. A review and evaluation of the functions and responsibilities of public sector departments will be carried out with a view to reducing overlapping and duplication of functions among agencies, in order to ensure the effective management and utilization of manpower resources. A reexamination of the present skill profile and composition of the public sector to reflect a more streamlined and efficient machinery as well as a more appropriate skill-mix will also be carried out. In this respect, PSD has produced a manpower planning manual to guide public sector agencies and increase their awareness of the importance of effective organizational manpower planning. Measures will continue to be undertaken to inculcate positive work ethics and values among Government employees.

Despite the slower growth in public sector employment arising from consolidation efforts and budgetary constraint, the demand for specific types of manpower in the public sector will continue to be significant. There will be continued demand for primary and secondary school teachers, and medical and health personnel such as doctors and nursing staff in view of the commitment of the Government towards providing universal education as well as upgrading the quality of health services. In the light of the increased provision of specialist health services, it is envisaged that more specialist manpower will be required. More post-graduate programmes to train specialists will, therefore, be launched locally and overseas under the joint efforts of the Ministry of Health, Ministry of Education, and PSD.

In line with the emphasis given to scientific and technological development, public sector research agencies, such as SIRIM, Tun Dr. Ismail Centre for Atomic Research (PUSPATI), Malaysian Agricultural Research and Development Institute (MARDI), Palm Oil Research Institute of Malaysia (PORIM), Malaysian Institute of Micro Electronics System (MIMOS), and institutions of higher learning, will play a major role in promoting research and development in the country. In this respect, efforts will be made to expand and upgrade the level of research expertise and capability of these agencies.

Agricultural manpower. The revitalization of the agriculture sector under the National Agricultural Policy (NAP) will have implications on the types of

manpower that will be in demand. In order to meet the demand for technical, managerial, and entrepreneurial skills, measures will be taken to reorientate courses undertaken by the University of Agriculture Malaysia (UPM) to increase practical training and the teaching of agribusiness and entrepreneurial skills. The training programmes of the Federal Land Development Authority (FELDA), Rubber Industry Smallholders Development Authority (RISDA), and agricultural institutes will be restructured to impart commercial and financial management skills, which will become more important with the emphasis on commercial-scale farming and plantation management in the agriculture sector. Skills of existing farmers will be upgraded with respect to commercial and entrepreneurial skills, farm management, and co-operative management.

Manpower for the tourist industry. In the light of the envisaged growth of the tourist industry, steps will be taken to meet the increasing demand for trained and experienced manpower at the managerial and supervisory levels as well as skilled and semi-skilled levels. It is estimated that a total of 29,600 workers will be required by the hotel industry during the Fifth Plan period. The increase in training efforts will be effected mainly through the expansion of programmes under the MARA Institute of Technology (ITM), supervisory training programmes under the National Productivity Centre (NPC), and in-house training programmes conducted by hotels. ITM will reorientate its training programmes to increase the practicality and relevance of its programmes to be in line with the needs of the hotel industry.

Local training programmes will not be able to sufficiently meet the manpower needs of the industry, especially with regard to managerial personnel. Overseas trained manpower is, therefore, expected to supplement locally trained manpower, particularly at the managerial and supervisory levels. Linkages will be strengthened among the Tourist Development Corporation (TDC), training institutions such as ITM and NPC, Malaysian Association of Hotels, and other relevant agencies to ensure proper co-ordination of training efforts.

Institutional arrangements for manpower planning and development. Efforts are being made to strengthen and streamline the manpower planning machinery in the public sector with a view to effecting a more co-ordinated and effective approach to national manpower development planning. Among the major measures the Government has undertaken, is the establishment of the Manpower Planning Sub-Committee of the National Development Planning Committee under the chairmanship of the Chief Secretary to the Government. This Sub-Committee will act as a manpower policy co-ordination body to provide policy direction on manpower issues. The Economic Planning Unit, in addition to its present function of undertaking manpower planning at the macro level, will assume the role of the central agency responsible for planning, co-ordination, and monitoring of manpower development through an interactive process of direction and feedback to and from supporting agencies. The two main supporting agencies

are PSD, which will be responsible for public sector manpower planning, and the Ministry of Labour, which will be responsible for co-ordination of private sector manpower planning, labour market monitoring, and co-ordination of industrial training.

An indepth study will be considered with a view towards further enhancing the utilization and development of human resources to meet the development goals of the country. The study will identify, among others, the manpower requirements of the economy at sectoral, occupational, and skill levels to provide guidance for effective development of human resources.

V. CONCLUSION

In view of the slower growth of the economy during the Fifth Plan period, the rate of employment growth is expected to slow down. Labour force expansion will, however, be sustained at a fairly high level. The rate of unemployment is, therefore, expected to increase further during the period. The private sector will have to bear the burden of generating new employment opportunities in the next few years. The Government will continue to provide improved labour market information and services to enable greater mobility of workers between occupations, sectors, and regions. Job seekers will, however, have to reorientate traditional preferences for white-collar jobs, especially in the public sector, towards skilled employment in the private sector.

In line with the anticipated demand for technical and skilled manpower during the Fifth Plan period, the development of skills will become more important in human resources development. Skill development efforts will, therefore, be specially tailored to meet the skill needs of the economy. The involvement of the private sector in skill training will, thus, be more important. Greater emphasis will be given towards a more co-ordinated and effective approach to manpower development planning.