

Part Three

Fourth Malaysia Plan, 1981-85

1. Objectives and Strategies

CHAPTER XI

Macro-Economic Framework

I. INTRODUCTION

478. The economy will undergo further expansion and diversification during the Fourth Malaysia Plan (FMP) period. Opportunities for expansion of the economy are bright and the problems to be overcome are challenging. While the major concern will be the impact of external developments on the Malaysian economy, in particular the rate of domestic price increase, the strong resource base of the economy, coupled with appropriate policies and programmes, will enable the economy to sustain the momentum of development. The macro-economic targets and the strategies to be adopted during the FMP take into account developments in the international economy and Malaysia's resources and potentials for development.

II. PROSPECTS FOR GROWTH

479. Malaysia's strength will continue to lie in its strong resource base and the relatively well diversified and developed economic structure. The current international instability is forecast to continue until at least the initial years of the Plan and will have a direct impact on the country's economic development. Exports now account for 43% of the Gross Domestic Product (GDP) while imports supply 47.5% of the domestic requirements. The relative weakening in aggregate demand of industrialised nations will have some dampening effect on the demand for Malaysia's exports, but as the international situation improves during the mid-period of the Plan, exports are expected to perform better. The prospects for Malaysia's commodity exports, will remain good in view of the increasing competitiveness of natural rubber against synthetics as well as the increasing demand for major primary commodities as a hedge against inflation and for stockpiling to meet strategic needs. The demand for manufactured exports will be largely influenced by external demand and the ability to make inroads into existing and new markets. Overall, the export sector is expected to grow at 17.4% per annum in current prices or at 9.7% in real terms during the Plan period.

480. The real adverse effects of international instability is expected to come from the rapidly rising world oil prices and the continuing inflationary situation in developed countries pushing up prices of imports and domestic costs of production. Total imports are projected to increase by 16.4% per annum in current prices or by 8.6% per annum in real terms. The high cost of imports will add to domestic inflation which is expected to average between 6% to 7% per annum, greater than the 4.6% per annum recorded during the Third Malaysia Plan (TMP). The actual outcome of domestic price increase during the FMP is difficult to predict and will depend, not only on the impact of international inflation on imports but also on the ability to increase production and enhance efficiency in the use of scarce resources.

481. GDP is projected to increase at 7.6% per annum in real terms. While this rate of economic growth is lower than that achieved during the TMP, it represents a significant expansion given the constraints, both external and internal, to be faced during the Plan period. The agricultural sector, currently the largest contributor to GDP, will expand at 3% per annum while the manufacturing sector will experience the fastest rate of growth of 11% per annum, thereby becoming progressively more important in terms of income and employment. During the FMP, additional resources will be devoted to increase productive capacity particularly with respect to increasing the acreage under rubber, oil palm, *padi* and other agricultural crops. The major contribution of this expansion to output will be felt after the FMP period. Considerable emphasis will be placed on increasing the value added of primary commodities through domestic processing of raw materials including petroleum and in identifying and encouraging new areas for export promotion and efficient import substitution by the private sector.

482. As in the past, considerable reliance will be placed on generating domestic resources through appropriate fiscal and monetary policies. The inflow of external resources required to supplement national savings in financing investment amounts to \$149 million over the five year period. The balance of payments reserves position will remain favourable.

483. The amount of investment over savings will be larger in the private sector than in the public sector. This reflects the policy of Government to step up the role of private investment in the productive expansion of the economy and in the achievement of the New Economic Policy (NEP). The major emphasis of public investment will be on programmes and projects geared to poverty eradication, restructuring of society and improving the quality of life. A lower rate of public investment growth is also accounted for by the rising share of expenditure for defence and internal security in the total development budget in order to further expand and strengthen the defence and security capabilities of the country.

III. GROWTH OF AGGREGATE OUTPUT AND INCOME

484. Underlying the average five year GDP growth of 7.6% in real terms or 14% in current prices, is the expectation that the economy will slow down up to about 1983, but grow more rapidly through 1985 in line with the expected recovery of the world economy from low growth and high inflation. Although the GDP will expand substantially, nearly 104% more in current prices than during the TMP, the value of real resources available will not expand to the same extent in view of the expected change in the relative price of exports and imports or the terms of trade.

485. The terms of trade is expected to decline marginally during the FMP at a rate of 0.2% per annum as a result of a slightly higher increase in the price of imports compared with that of exports between 1980 and 1985. This will lead to some losses in the terms of trade estimated at \$479 million. As shown in Table 11-1, notwithstanding the losses from the terms of trade, the real *per capita* income will increase by 5% per annum, thus enabling Malaysians to experience continuing improvements in living standard.

TABLE 11-1
MALAYSIA: AGGREGATE OUTPUT AND INCOME, 1980-85
(S. million)

	1980	1985	Average annual growth rate (%) 1981-85
<i>Real output</i>			
Exports of goods and non-factor services	11,253	17,899	9.7
Production for domestic use	14,935	19,925	5.9
Real gross domestic product at purchasers' value	26,188	37,824	7.6
<i>At current prices</i>			
Exports of goods and non-factor services	30,837	68,888	17.4
Production for domestic use	19,536	28,203	7.6
Gross domestic product at purchasers' value	50,373	97,091	14.0
<i>Purchasing power</i>			
Exports of goods and non-factor services ¹	12,825	20,303	9.6
Production for domestic use	14,935	19,925	5.9
Real gross domestic product at purchasers' value	27,760	40,228	7.7
Population ('000)	14,261.2	16,179.5	2.6
Real gross domestic product <i>per capita</i>	1,947	2,486	5.0

¹ Exports deflated by import price index.

IV. PRODUCTION BY MAJOR SECTORS

486. The continued expansion of industrial and agricultural production as well as the further diversification of the Malaysian economy will underlie the growth in GDP during the FMP period. The distribution of growth by

supplying sectors reflects the continuity of past trends whereby the secondary and tertiary sectors will become more important relative to the primary sector. Table 11-2 shows the projection of GDP by sector of origin and the share of individual sector.

487. The growth of the *agriculture, forestry and fishing sector*, currently the largest sector in the economy, will be somewhat lower during the FMP period compared with its performance during the SMP and TMP periods. The sector is projected to grow at 3% per annum compared with 4.3% during the last decade. In addition, the sector's contribution to national output is expected to continue to decline from 22.2% in 1980 to 17.8% in 1985. By 1985, this sector will cease to be the largest in terms of its contribution to GDP.

TABLE 11-2.

MALAYSIA: GROSS DOMESTIC PRODUCT BY SECTOR
OF ORIGIN, 1980-85
(\$ million in 1970 prices)

Sector	1980	Share of GDP (%)	1985	Share of GDP (%)	Average annual growth rate (%) 1981-85
Agriculture, forestry and fishing	5,809	22.2	6,720	17.8	3.0
Mining and quarrying	1,214	4.6	1,607	4.3	5.8
Manufacturing	5,374	20.5	9,040	23.9	11.0
Construction	1,186	4.5	1,824	4.8	9.0
Electricity, gas and water	592	2.3	953	2.5	10.0
Transport, storage and communications	1,696	6.5	2,492	6.6	8.0
Wholesale and retail trade, hotels and restaurants	3,295	12.6	4,841	12.8	8.0
Finance, insurance, real estate and business services	2,155	8.2	3,079	8.1	7.4
Government services	3,398	13.0	5,228	13.8	9.0
Other services	657	2.5	948	2.5	7.6
Less: imputed bank service charge	308				
Plus: import duties	1,120		1,092		
Equals: Gross Domestic Product at purchasers' value	26,188		37,824		7.6

488. This development is largely due to the slower growth anticipated for the sector's main commodities, namely, rubber and palm oil, as the full impact on production brought about by new planting and replanting had already been realised during the late 1970's. In addition, the increase in timber output, which in the past decade contributed almost 20% of the sector's output, is also expected to decline.

489. The development of the agricultural sector during 1981-85 will be guided by the principal objectives of increasing food production to meet the requirements of an increasing population, accelerating the growth of export,

earnings and increasing productivity and incomes of the agricultural labour force. An important aspect will be the formulation of an integrated development programme for agricultural commodities and the effort to assign priorities to commodity developments. The major tree crops will continue to be given priority as they are already dominant in the overall land use and the growth of these crops is expected to contribute significantly to the expansion in the sector's output and the income of the smallholders. Emphasis will also continue to be given to the production of other crops, such as cocoa, tobacco, vegetables and fruits, as mixed crops and to diversify farm activities, and to the expansion of the livestock and fisheries to generate additional incomes for the agricultural poor. In addition, greater attention will be given to the provision of improved marketing and institutional infrastructure.

490. *Rubber* production is anticipated to expand at 0.7% per annum, compared with 2.3% per annum growth recorded during the last decade. The slow growth is due mainly to the substantial decline in replanting from 172,500 hectares during 1971-75 to 106,500 hectares during 1976-80. However, the decline in acreage resulting from slower replanting will be offset by productivity increases.

491. Greater efforts will be undertaken to expand rubber output in line with the Government's Dynamic Production Policy, designed to maintain Malaysia's position as the leading producer of natural rubber. Under this policy, about 257,400 hectares will be replanted and 48,600 to 60,750 hectares newplanted during the FMP period. Apart from these efforts, the policy calls for further improvement and a wider application of production techniques and the intensification of research to identify new uses.

492. The output of *palm oil* will continue to expand but at a lower rate of 8.5% per annum compared with a rate of 19.6% per annum achieved during the last decade. As in the case of rubber, the full impact of production resulting from past planting efforts would already be realised in the late 1970s and early FMP period.

493. During the FMP period, a strategy to expand future production will continue to be pursued. To this end, new acreages amounting to 84,700 hectares will be planted with oil palm by major Federal agencies. In addition, a replanting programme for oil palm has also been formulated.

494. In Peninsular Malaysia, a National Forestry Policy was accepted and adopted in 1978, principally to conserve the existing forest reserves in view of the rapid rate of forest exploitation in the past. The aim of the policy is to ensure adherence by the state governments to the maximum quota for forest exploitation, the strict supervision of the intensity of forest harvesting, the expansion of capacity of wood processing mills and the acceleration in the rate of forest rehabilitation. With the implementation of the policy, *sawlogs* output from Peninsular Malaysia is expected to decline by 7% per annum. In Sabah and Sarawak, efforts to conserve forest resources are

also anticipated to be implemented during the FMP period. As a result of these efforts, total sawlogs output will decline by 3.5% per annum during the FMP compared with the growth of 3.4% per annum during the last decade.

495. The policy of self-sufficiency in *padi* production will continue to be pursued during the FMP period. Other than ensuring that rice being the staple food is readily available for the population as world supplies are uncertain, continued efforts will be made to improve the incomes of the *padi* farmers. To achieve these objectives, the area under double-cropping will be further expanded and new areas amounting to 4,450 hectares per annum will be developed for *padi* production. In addition, emphasis will be given to further improve productivity through the use of high yielding varieties, fertilizers, greater extension services, drainage and irrigation, and credit and marketing facilities.

496. During the FMP period, diversification of agricultural production will continue to be undertaken. Among the potential crops are cocoa, pepper and tobacco. The extent of expansion in the cultivation of these crops will take into account the availability of suitable land and the commercial viability of the crops. The livestock and aquaculture industries will also be encouraged.

497. The growth of the *mining sector* has been dominated by the increase in the output of crude petroleum since the middle of the last decade. During the FMP, production of *crude petroleum* is expected to increase by 5.3% per annum from 280,000 barrels per day in 1980 to 362,900 barrels per day in 1985. The prospects for the production of liquified natural gas (LNG) are bright with the existence of sizable reserves. With the completion of the Bintulu LNG project, the production of LNG is expected to come on stream by 1983, with a capacity to produce six million tonnes mainly for export.

498. *Tin* output has been declining since 1973 due to depleting tin ores in existing mines. It is expected to decrease by 0.8% per annum during the FMP period. *Copper* output is projected to decline on account of the limited availability of existing reserves in Sabah. Taking all these into account, the mining sector is estimated to record a growth of 5.8% per annum during the FMP period, a substantial part of which will be accounted for by LNG production.

499. The *manufacturing sector* will continue to be the leading sector during the FMP but is projected to grow at a lower rate of 11% per annum compared with the rate of growth of 13.5% per annum recorded during the TMP period. The sector will account for nearly one-third of the increase in GDP and its share in total GDP will increase from 20.5% in 1980 to 23.9% in 1985.

500. The stimulus to expansion of the manufacturing sector will come from both external and domestic demand, supported by availability of investible resources as well as by the industrial policy and promotional measures. The export-oriented industries such as timber products, electronics, textiles and rubber products will continue to enjoy increases in external demand but at lower rates of increase ranging from 4% to 19% per annum than those achieved in the past. A number of newly emerging products which have significant demand potential will be given strong encouragement and these include precision products such as surgical and dental instruments and equipment, and scientific gauges. In addition, several agro-based industries which have good potential for export and domestic demand will receive priority treatment and are expected to increase production substantially during the FMP. These include processing of cocoa and palm oil, production of heavy duty tyres and specialty rubber products like surgical and household gloves and high value timber-based products such as knock-down furniture, panels and carved doors and other joinery items.

501. Import substitution will also account for some increase in manufacturing production. Important among these are the production of processed food, intermediate goods such as oils and fats, industrial chemicals, chemical products and cement, which together accounted for 41.1% of the total imports in 1980. In addition, considerable scope exists for Malaysia to enter into the next phase of import substitution for the manufacture of capital goods, the import of which accounted for 45.4% of total investment goods demand in 1980. The Heavy Industries Corporation Malaysia Berhad was set up in 1980 to encourage, on a longer term basis, the growth of capital-intensive industries such as aluminium, cement and steel.

502. The *construction sector* value added is projected to increase at a rate of 9% per annum during the FMP, compared with 12.6% per annum during the TMP. This deceleration in growth is expected in view of the decline in non-residential and engineering construction attributed to the public sector during the FMP. The declining construction activity of the public sector, however, will be more than offset by the rapid expansion in construction by the private sector. Residential construction demand in the private sector will continue to be substantial in view of the encouragement given to home ownership and the relatively easy access to housing loans provided by both private and public sector institutions. Non-residential construction by the private sector is expected to increase, especially that related to the manufacturing sector in line with the high rate of increase in private investment targetted for the period.

503. The *services sector* which comprises mainly the wholesale and retail trade; transport, storage and communications; government services; finance; and utilities, is expected to expand at more or less similar rate as the overall GDP growth. The government services sector, the largest of

all and which in 1980 accounted for 28.8% of total services value added is forecast to increase by 9% per annum in line with expected increase in public consumption expenditure of about 9.2% per annum during the FMP. Past performance indicated strong relationship in the growth between the wholesale and retail trade; finance; and transport, storage and communications sectors with those of the agricultural and manufacturing sectors. During the FMP, these two latter sectors, together, is expected to increase by 7.1% per annum and they are expected to continue to influence the performance of the wholesale and retail trade; finance; and transport; storage and communication sectors.

504. Expansion of the utilities sector, as in the past, will keep pace with the growth in the manufacturing sector, though other factors such as the rate of urbanization and population increase will also influence significantly the performance of the utilities sector. The utilities sector is projected to grow at 10% per annum, in line with the increase of 11% per annum expected of the manufacturing sector. The remaining services sectors are projected to increase at about the same rate as the overall GDP.

V. SOURCES OF GROWTH

505. With public investment growing at 4.1% in current prices, the major source of growth for expansion of the economy will come from exports, private investment and public consumption. Exports are projected to increase by 9.7% per annum, while private investment is targetted to grow at 8% per annum in real terms. The growth in these demand aggregates, as shown in Table 11-3, will call for policies aimed to assist their expansion.

Exports

506. The performance of the exports sector during the FMP will be determined largely by development in the international economy and also by the supply response of the country's major export commodities. Many industrialised nations have adopted deflationary measures to control inflation and the recovery to a stable growth path is likely to be longer because of the lead time involved in adjusting to high energy costs. In addition, imports by industrialised nations are expected to grow slowly in view of the need to safeguard their current account positions and the marked increase in protectionist policies of industrialised countries. In light of these developments, it is expected that world export prices for primary commodities will also reflect a downward trend.

507. On the domestic front, a major constraint will be on the supply of primary commodities. The rates of increase in the volume of exports of rubber and palm oil are expected to decelerate while the volume of tin and copper exports will decline. In addition, the export volume of sawlogs will decline as a result of conservation policy.

TABLE 11-3

MALAYSIA: GROSS DOMESTIC PRODUCT BY DEMAND
CATEGORY, 1980-85

in current and in constant 1970 prices (in parentheses)

(\$ million)

	1980	1985	Average annual growth rate (%) 1981-85
Private consumption	26,436 (15,317)	50,014 (21,483)	13.6 (7.0)
+ Public consumption	8,611 (5,284)	17,320 (8,200)	15.0 (9.2)
+ Private investment	10,083 (4,635)	18,637 (6,813)	13.1 (8.0)
+ Public investment	4,682 (2,308)	5,728 (2,151)	4.1 (-1.4)
+ Change in stocks	-392 (-180)	358 (95)	-
+ Exports of goods and non-factor services	30,837 (11,253)	68,888 (17,899)	17.4 (9.7)
- Imports of goods and non-factor services	29,884 (12,429)	63,854 (18,817)	16.4 (8.6)
= Gross domestic product at purchasers' value	50,373 (26,188)	97,091 (37,324)	14.0 (7.6)
<i>Memo items:</i>			
Private investment (excluding oil)	8,095 (3,815)	17,447 (6,428)	16.6 (11.0)
Public investment (excluding MAS, MISC)	4,592 (2,271)	4,800 (1,861)	0.9 (-3.9)

508. Based on these considerations total commodity exports are projected to grow by 17.3% per annum in current prices, as shown in Table 11-4, compared with a growth rate of 25.2% during the TMP. *Export earnings from agriculture* are projected to increase by 10.4% per annum accounting for 26.5% of total exports by 1985 with earnings from rubber expected to increase by 10.6% per annum due mainly to price increase of 10.3% per annum and a 0.3% annual increase in the export volume. The prospects for palm oil exports during the FMP are less favourable compared with the TMP in view of the anticipated rapid expansion in the world supply of oils and fats which will dampen price increases.

509. Earnings from *mineral exports* are projected to increase by 19.7% per annum during the FMP due to increases in prices for tin, petroleum and copper and in the export of LNG amounting to \$3,284 million in 1985. The export volumes of tin and copper are projected to decline as a result of declining trend in output. In the case of petroleum, the export volume is projected to increase by 3% per annum.

TABLE 11-4

MALAYSIA: COMMODITY EXPORTS, 1980-85

	1980 (Estimated)	1985 (Projected)	Average annual growth rate (%) 1981-85
<i>Rubber</i>			
Volume ('000 tonnes)	1,620	1,640	0.3
Unit value (cts/kg.)	300	490	10.3
Value (\$ million)	4,860	8,036	10.6
<i>Tin</i>			
Volume ('000 tonnes)	70	66	-1.2
Unit value (\$/tonne)	35,717	45,788	5.1
Value (\$ million)	2,504	3,022	3.8
<i>Sawlogs</i>			
Volume ('000 cu. m.)	13,900	10,500	-5.5
Unit value (\$/cu. m.)	175	295	11.0
Value (\$ million)	2,435	3,098	4.9
<i>Sawn timber</i>			
Volume ('000 cu. m.)	3,300	4,100	4.4
Unit value (\$/cu. m.)	370	577	9.3
Value (\$ million)	1,221	2,367	14.2
<i>Palm oil</i>			
Volume ('000 tonnes)	2,260	3,573	9.6
Unit value (\$/tonne)	1,140	1,326	3.1
Value (\$ million)	2,576	4,738	13.0
<i>Crude petroleum</i>			
Volume ('000 tonnes)	11,822	13,708	3.0
Unit value (\$/tonne)	609	1,281	16.0
Value (\$ million)	7,200	17,560	19.5
<i>Copper</i>			
Volume ('000 tonnes)	113	110	-0.5
Unit value (\$/tonne)	1,000	1,942	14.2
Value (\$ million)	113	214	13.6
<i>Pepper</i>			
Volume ('000 tonnes)	36	51	7.2
Unit value (\$/tonne)	3,800	4,470	3.3
Value (\$ million)	136	228	10.9
<i>Canned pineapple</i>			
Volume ('000 tonnes)	53	57	1.5
Unit value (\$/tonne)	1,358	1,509	2.1
Value (\$ million)	72	86	3.6
<i>Cocoa</i>			
Volume ('000 kg.)	23,644	72,156	25.0
Unit value (cts/kg.)	800	875	1.8
Value (\$ million)	189	631	27.3

TABLE 11-4—(cont.)

MALAYSIA: COMMODITY EXPORTS, 1980-85—(cont.)

	1980 (Estimated)	1985 (Projected)	Average annual growth rate (%) 1981-85
<i>LNG</i>			
Volume ('000 tonnes)	—	4,000	—
Unit value (\$/tonne)	—	821	—
Value (\$ million)	—	3,284	—
<i>Manufactures</i>			
Value (\$ million)	5,865	17,370	24.2
<i>Other commodity exports</i>			
Value (\$ million)	1,274	2,496	14.4
<i>Total gross commodity exports</i>			
Value (\$ million)	28,445	63,130	17.3

510. *Exports of manufactures* are anticipated to expand rapidly by 24.2% per annum. Textiles and electronics exports which experienced rapid expansion in the past will still continue to be the leading sectors but the rate of expansion is likely to moderate for a number of reasons. To begin with, the levels of textiles and electronics exports were already high in 1980 and to repeat past growth will require large absolute increases which will be difficult to achieve. In addition, the growth in textiles exports will be limited by quota restrictions and further expansion will depend on the progress of negotiations of textiles quotas with developed countries and on the availability of new markets. In the case of electronics, although international demand will grow, the rate of export expansion will depend on Malaysia's ability to maintain its competitive position in the face of new sources of international supply and the rising cost of domestic labour.

511. To achieve the rapid growth of manufactured exports, an aggressive export strategy will be formulated and implemented so as to expand into existing and new markets and to improve the competitive position of manufactured exports. Further, special emphasis will be given to develop products that have good export potential in order to diversify and broaden the base of manufactured exports.

Private investment

512. Private investment is expected to play a major role in the domestic economic expansion and in the attainment of the NEP. Out of the total investment of \$102,639 million projected for the FMP period, \$74,111

million or 72.2% is expected to be met by the private sector. This implies a target growth of private investment (excluding investment in oil industry) of 11% per annum in real terms or 16.6% per annum in current prices. Investment in the oil industry which in 1980 accounted for 17.7% of private investment is expected to decline resulting in a private investment growth of 8% per annum in real terms or 13.1% per annum in current prices.

513. Significant scope exists for expansion of industries that fulfil important development criteria such as utilization of local materials, dispersal of industries and high rate of employment creation. Among the industries in which investment will be encouraged include resource-based industries, agricultural machinery and equipment, building and construction, and small-scale industries. In addition, efforts to promote capital-intensive industries will be accelerated with the setting up of the Heavy Industries Corporation Malaysia Berhad. A number of projects including iron and steel, aluminium and cement plants as well as an engineering servicing complex, has been identified as potential industries for promotion during the FMP.

514. The deteriorating international inflation expected during the period of the FMP, coupled with the relatively uncertain external demand prospects, could affect adversely the inducement to invest. To assist in the achievement of the private sector investment target, the Government will introduce measures to offset or minimise the adverse effects of weak demand and cost escalation, as well as to improve the administrative system to speed up investment decisions.

Private consumption

515. Private consumption which accounted for 58.5% of GDP in 1980 is projected to increase by 7% per annum in real terms during the FMP. This rate of increase is lower than that for the TMP but is nevertheless significant relative to overall demand in the country. With population projected to increase by 2.6% per annum, *per capita* private consumption will increase by 4.3% indicating continued improvement in welfare of the population.

Public consumption

516. Public consumption is envisaged to increase by 9.2% per annum in real terms, resulting in its share in GDP rising from 20.2% in 1980 to 21.7% in 1985. This rapid growth in public consumption arises out of the need to cater for the increase in personal emoluments and the service functions of the Government.

Public investment

517. Estimated public sector investment, including purchases of aircrafts and ships by MAS and MISC, during the FMP will amount to \$28,528 million. The share of public investment in total investment is 27.8%, lower than the corresponding share of 36.8% during the TMP. In real terms, public investment will decline by 1.4% per annum compared with an increase of 9.3% during the TMP.

518. In the past, public investment has grown rapidly and, therefore, future growth is likely to be lower even if there are absolute increases in public investment. Furthermore, it is the objective of the Government to provide a major role for the private sector in building up productive capacity in the economy and to contribute towards the attainment of NEP objectives. The bulk of the public sector investment will be directed towards poverty eradication and restructuring of equity and asset ownership and to expand social facilities such as education, health and housing. Public sector agencies such as the Highway Authority Malaysia and the Heavy Industries Corporation Malaysia Berhad will, in addition to the initial equity, arrange for their own source of financing to implement their respective programmes.

519. The focus of public investment expenditure will be to consolidate past and existing development programmes and projects with a view to strengthen their effectiveness. Towards this end, the Government will take appropriate measures to improve implementation and coordination of public sector programmes and enhance the viability of public sector projects.

Imports

520. The slowdown in domestic demand and the increase in the degree of import substitution will lead to a lower growth in imports of 8.6% per annum. This growth compared with the high rate of increase of 14.8% per annum during the TMP is due primarily to the expected slowdown in total investment and a deceleration in private consumption. In addition, past and present efforts to encourage import substitution are expected to bear fruit during the FMP thereby contributing towards the lower rate of increase in imports.

VI. SAVINGS AND INVESTMENT

521. The extent of the resource gap in terms of the difference between savings and investment for the economy as a whole, and for the public and private sectors, is shown in Table 11-5. Taking into account the growth in private disposable income and government revenue and the growth in private

and public consumption, overall gross national savings is expected to amount to \$102,490 million, with the private sector accounting for 66.3% of the total. Gross national investment (including change in stocks) is estimated to amount to \$102,639 million, with the private sector contributing 72.2% of the total investment. The overall resource gap for the five year period is estimated to be \$149 million which will have to be met by the inflow of real resources from abroad.

TABLE 11:5

MALAYSIA: SAVINGS AND INVESTMENT, 1980-85

	1980		1985		Cumulative 1981-85 (\$ million)
	(\$ million)	Share of GNP (%)	(\$ million)	Share of GNP (%)	
<i>Private savings and investment</i>					
Disposable income	33,709	69.3	66,748	71.4	264,873
Consumption	26,436	54.4	50,014	53.5	196,942
Savings	7,272	15.0	16,734	17.9	67,931
Investment (+ change in stocks)	9,691	19.9	18,995	20.3	74,111
Balance	-2,418	—	-2,261	—	-6,180
<i>Public savings and investment</i>					
Revenue	15,343	31.5	27,412	29.3	113,069
Consumption and transfers	9,139	18.8	18,072	19.3	78,510
Savings	6,204	12.8	9,340	10.0	34,559
Investment	4,682	9.6	5,728	6.1	28,528
Balance	+1,522	—	+3,612	—	+6,031
<i>Total</i>					
Gross national savings	13,477	27.7	26,074	27.9	102,490
Gross national investment	14,373	29.6	24,723	26.4	102,639
Balance	-896	—	1,351	—	-149

522. The investment-savings gap will be substantial in the private sector compared with the excess of savings over investment in the public sector. The large size of the investment-savings gap in the private sector poses a great challenge to the private sector in mobilising its resources for investment. In this regard, the fiscal and monetary policies of the Government will be such as to facilitate the inflow of long-term private capital as well as providing public sector funds either through transfers or loans to the private sector to finance its investments.

VII. BALANCE OF PAYMENTS

523. The prospects for the balance of payments position during the FMP will remain favourable. As shown in Table 11-6, the merchandise balance, comprising exports and imports is projected to register a surplus of \$35,241 million during the FMP compared with \$21,954 million during the TMP, largely due to the growth of commodity exports and the lower rate of growth in the value of imports projected for the period. However, the services account, comprising mainly payments for freight and insurance and investment income will continue to be in deficit. The services account deficit is expected to reach \$34,910 million due to the continuing expansion in foreign trade as well as the increasing contribution of foreign investment to the economy. Taking into account the merchandise and services account, the current account of the balance of payments will register a deficit of \$149 million.

TABLE 11-6

MALAYSIA: BALANCE OF PAYMENTS, 1981-1985 (\$ million)

								<i>Cumulative 1981-85</i>
	Exports of goods	...	...	...	...	...	...	228,249
-	Imports of goods	...	...	...	...	...	...	193,008
=	Trade balance	...	...	...	...	...	...	+35,241
+	Balance on services	...	...	...	...	...	...	-34,910
+	Net transfers	...	...	...	...	...	...	-480
=	Balance on current account	...	...	...	...	...	...	-149
+	Official long-term capital	...	...	...	...	...	...	+4,000
+	Corporate investment	}	...	...	...	...	...	+11,673
+	Commercial credits							
+	Private financial capital							
+	Errors and omissions	...	...	...	...	...	...	-6,000
=	Overall balance	...	...	...	...	...	...	+9,524
+	SDR allocation	...	...	...	...	...	...	+76
=	Net change in external reserves (increase - / decrease +)	...	...	...	...	...	...	-9,600

524. During the FMP, the Government will seek to reduce the growing dependence on invisible imports through expansion of the national shipping line and the progressive implementation of the cabotage policy so that coastal shipping would be undertaken by Malaysian registered carriers. In

529. Another significant external influence is the import price of oil which increased by 16.9% per annum during the TMP. The country is estimated to import about 70% of its domestic requirements from West Asia by 1985 while uncertainty over the future supply will continue to exert an upward pressure on the prices of oil. The increase in the price of energy will increase the cost of production of energy-intensive industries such as electricity generation, cement, iron and steel. Since the output of these industries forms an important input to most of the sectors in the economy, the overall effect will be to increase the domestic cost of production and the prices of consumption goods.

530. The forecast of the domestic price level during FMP, after taking into account trends in international prices, is 6% to 7% per annum. Export prices are projected to increase by 7% per annum, compared with 14.1% per annum during TMP. The major determinants of the overall export price level will be the price of primary commodities. The price of rubber exports which accounted for 17.1% of the value of total commodity exports in 1980 is projected to grow at 10.3% per annum. Given the impact of prices of energy on the cost of production of synthetic rubber and the rising demand for all elastomers over projected supply of natural rubber, the export unit value of rubber will continue to remain high. In addition, the finalization of International Rubber Agreement within the framework of the Common Fund will help to stabilise the annual price fluctuation of rubber.

531. Other primary commodities whose prices influence the export price index are timber, palm oil, tin and crude petroleum. The export unit value of sawlogs as well as sawn timber is anticipated to grow at a high rate of 11.9% per annum in view of the increasing use of timber by the construction and housing industry in both the exporting and importing countries and the conservation policies adopted by the exporting countries. Palm oil prices are expected to grow at a rate of 3.1% per annum. However, the increase in the price of palm oil which presently accounts for 8.7% of world production of all major oils and fats, is not expected to be as high as that of other primary commodities. The relatively slower growth in the unit value of exports of palm oil compared to other primary commodities is due to the projected expansion of world supply of other oils and fats which are close substitutes for palm oil.

532. The medium and long-term price trends for petroleum remain uncertain in view of the market and non-market forces which influence international price determination. Nevertheless, taking into account past increases and anticipated production levels of oil exporting countries, the export unit value of crude petroleum is projected to grow at 16% per annum.

533. The import price index is expected to grow at about the same rate as the projected international inflation of 7% per annum. The major determining factors in the movement of the import price index will be the import prices of consumption goods, machinery and transport equipment, and oil which accounted for 56.5% of the total imports in 1980.

534. The major source of domestic inflationary pressure is likely to emanate from the emerging tight labour market and the bottlenecks in the supply of construction materials. While unemployment and under-employment still continue to exist, structural constraints in the supply of labour, particularly with respect to imbalances in specific types of labour and skills and location have led to shortages of labour for some sectors of the economy and, consequently, pressure on wages. The most affected were the labour-intensive manufacturing industries, the construction industry and the estate sector. In addition, continuing bottlenecks in the supply of construction materials in the face of rising demand for residential and non-residential construction will exacerbate the domestic inflationary situation.

535. In the face of all these developments, the effort to contain inflation within 6% to 7% per annum will be a challenging task. As in the past, the Government will continue its programme of fiscal and monetary policies and administrative measures to contain price increases. The implementation of fiscal and monetary policies along counter-cyclical lines will be an important means through which Government will seek to moderate cyclical fluctuations so as to sustain the orderly development of the economy. In particular, the Government will closely monitor the growth of money supply consistent with development needs and continue its policy of ensuring that a major part of lending by financial institutions is geared to the expansion of productive capacity, especially to the needs of small businesses. The expenditure programmes of the Government will be designed to effect counter-cyclical changes in the economy and the tax system will be kept under continuous review not only as an instrument of revenue, but also to stabilise the economy and to ameliorate the impact of any adverse developments on the poor.

536. The Government will, from time to time, review price control of approved items taking into account the need for reasonable return on investment by businesses and the welfare of consumers, particularly the poor. Price control, if used indiscriminately, will distort the allocation of resources and lead to shortages and black marketing. By the same token,

indiscriminate increase in prices of essential commodities affects the livelihood of the masses of the population. The Government, therefore, in responding to requests by businesses for price increases of essential commodities, will continue to adopt a balanced approach.

537. One major area that has an important influence on the domestic price level is the protective tariff provided to the manufacturing sector, particularly the import substitution industries. While the present level of protection is still moderate by international comparison, the increase in the rate of effective protection has been substantial. With the emphasis on the expansion of the manufacturing sector and as the opportunities for import substitution are exploited, the need for a review of tariff protection becomes important to ensure that productive efficiency on the part of those industries enjoying tariff protection are increased and the costs of protection to society are minimised. In this regard, Government attention will be focussed on undertaking a study of present tariff structure and levels so as to streamline the present tariff rates and levels consistent with the need to promote an efficient industrial structure.

538. A very important means through which any potential inflationary pressure can be curtailed is through increasing production. Constraints to production such as low productivity, artificial restraints and bottlenecks, structural rigidities and immobilities in the factors of production and inefficient marketing and distribution system lead to undue pressure on the cost of production and generate inflationary expectations. All these need to be progressively reduced with emphasis on increasing food production, the strengthening of marketing arrangements and increasing the supply of construction and building materials through expansion of capacity.

539. The task of controlling inflation requires the active and positive participation by the private sector and the population at large. While the Government will continue to implement appropriate policies and measures, excessive profiteering and hoarding on the part of business or excessive consumption and impulsive purchases on the part of consumers will only serve to generate an inflation psychology and nullify the efforts of Government to control inflation. Apart from strict monitoring and supervision of unhealthy business practices, the Government will also continue to provide encouragement for the growth of a responsible consumer movement to act as a source of information and restraint to excessive profiteering and hoarding.

IX. CONCLUSION

540.- The prospects for continued expansion of the economy during the FMP are bright. As demonstrated in the past, the resilience and the strong resource base of the economy will enable the country to withstand the adverse economic developments in the world economy. During the FMP, greater efforts will be made to monitor closely domestic and international economic trends so that appropriate and timely action can be taken to maintain the momentum of development. The reliance of the Government on the private sector to provide the leading role during the FMP indicates the trust and confidence that the Government places on the private sector to play a major role in the achievement of the NEP objectives while providing simultaneously opportunities for private initiative and creativity.

CHAPTER XII

Population, Employment and Manpower Development

I. INTRODUCTION

541. The development of human resources, in line with manpower requirements, is crucial to the success of the development efforts of the nation. In view of this, high priority will continue to be placed on manpower development and effective management of human resources to facilitate their optimal utilization in consonance with the objectives of the New Economic Policy (NEP). Greater emphasis will be given to reorientate the educational and training systems through restructuring of courses and establishment of more vocational training institutions. The creation of more job opportunities will be accelerated to provide for the increased labour force and reduce unemployment and underemployment in both the urban and rural areas.

II. GROWTH OF POPULATION AND LABOUR FORCE

Population

542. As shown in Table 12-1, the population is estimated to increase from 14.3 million in 1980 to about 16.2 million by 1985, growing at an average rate of 2.6% per annum during the Fourth Malaysia Plan (FMP). Due to a steady decline in fertility and also a gradual decline in mortality during the last decade, the population of Peninsular Malaysia is expected to increase at an average rate of 2.4% per annum, lower than the growth rate of 3.2% per annum estimated for Sabah and Sarawak.

543. The geographical distribution of the population is expected to remain about the same during the period with 82.6% residing in Peninsular Malaysia, 7.9% in Sabah and 9.5% in Sarawak by 1985. The slight increase in the proportion projected for Sabah and Sarawak is due to higher fertility levels and the inflow of workers into Sabah during the next five years.

544. *Mortality* declined rapidly during the sixties and seventies resulting from improved health and medical services, especially in the rural areas. Based on past trends, Peninsular Malaysia is not likely to experience a

TABLE 12-1

MALAYSIA: POPULATION SIZE AND AGE STRUCTURE, 1980-85¹

Age group	1980		1985		Average annual growth rate, 1981-85 (%)
	('000)	(%)	('000)	(%)	
PENINSULAR MALAYSIA					
0-14	4,578.0	38.6	5,005.0	37.5	1.8
15-64	6,811.0	57.5	7,812.0	58.5	2.8
65+	460.0	3.9	540.0	4.0	3.3
Sub-total (%)	11,849.0 (83.1)	100.0	13,357.0 (82.6)	100.0	2.4
SABAH					
0-14	489.1	44.6	571.1	44.4	3.2
15-64	585.4	53.3	685.0	53.3	3.2
65+	23.3	2.1	29.0	2.3	4.5
Sub-total (%)	1,097.8 (7.7)	100.0	1,285.1 (7.9)	100.0	3.2
SARAWAK					
0-14	565.1	43.0	668.4	43.5	3.4
15-64	707.5	53.8	817.2	53.1	2.9
65+	41.8	3.2	51.8	3.4	4.4
Sub-total (%)	1,314.4 (9.2)	100.0	1,537.4 (9.5)	100.0	3.2
MALAYSIA					
0-14	5,632.2	39.5	6,244.5	38.6	2.1
15-64	8,103.9	56.8	9,314.2	57.6	2.8
65+	525.1	3.7	620.8	3.8	3.4
TOTAL (%)	14,261.2 (100.0)	100.0	16,179.5 (100.0)	100.0	2.6

¹ Data will be revised once the results of the 1980 Population and Housing Census of Malaysia are available.

further decline in mortality as the crude death rate of about six per 1,000 population in 1980 is already low. Life expectancy at birth is expected to increase during the Plan period, from 68 years in 1980 to about 70 years by 1985 for males and from 72 years to about 73 years for females. In Sabah and Sarawak, further decline in mortality can be expected with greater improvement in the health and medical services.

545. *Fertility* level in Peninsular Malaysia has been showing a steady decline over the past decade. Since the average age of marriage at 23 years is already high, further decline in fertility will depend upon changes in norms and attitudes regarding family size. The total fertility rate is expected

to fall from 3.6 in 1980 to about 3.1 in 1985 while the crude birth rate is estimated to decline from 28.9 per 1,000 population in 1980 to about 26 by 1985. In Sabah and Sarawak, a small but steady decline in fertility can be expected during the Plan period, although in the past there was no clear evidence of a declining trend.

546. The age structure of the population will change as fertility continues to decline. The population in the age group 0-14 years is expected to decline slightly from 39.5% in 1980 to 38.6% by 1985 as a direct consequence of lower fertility experienced in the 1970s. On the other hand, the proportion of working-age population 15-64 years will increase from 56.8% in 1980 to 57.6% by 1985, reflecting higher fertility levels in the 1950s and 1960s. These shifts in the age structure will affect the age dependency ratio (ratio of population below age 15 and above age 65 to the working-age population 15-64 years) which will decline from 76% to 73.7% during the period.

547. As shown in Table 12-2, the ethnic composition of the population in Peninsular Malaysia is expected to change slightly during the Plan period. The proportion of the Malays will increase from 53.9% in 1980 to 54.7% by 1985, while that of the other ethnic communities will decrease marginally. This is due to a relatively higher level of fertility and greater improvement in mortality among the Malays as compared with the other ethnic communities. Over the longer term, the various fertility levels tend to converge, thereby maintaining their relative proportions of the total population.

TABLE 12-2

PENINSULAR MALAYSIA: POPULATION COMPOSITION
BY ETHNIC GROUP, 1980-85

	1980		1985		Average annual growth rate 1981-85 (%)
	('000)	(%)	('000)	(%)	
Malay	6,384	53.9	7,302	54.7	2.7
Chinese	4,136	34.9	4,589	34.4	2.1
Indian	1,239	10.5	1,370	10.2	2.0
Others	90	0.7	96	0.7	1.3
TOTAL	11,849	100.0	13,357	100.0	2.4

548. The *school-age population* between the ages of 6-18 years in Peninsular Malaysia is expected to increase from 3.7 million in 1980 to about four million by 1985, growing at an average annual rate of 1.5%. As shown in Table 12-3, school enrolment will increase more rapidly at 2.7% per annum,

resulting in an increase in the enrolment ratio from 69.2% in 1980 to about 74% by 1985. At the primary level, school enrolment will grow at the same rate of 2% as the school-age population 6-11 years so that the enrolment ratio remains at 96% throughout the Plan period. At the lower, upper and post secondary levels, the school-age population will increase at 1.2%, 1% and 0.9% per annum, respectively. School enrolment at these levels will continue to increase at a rate ranging from 2.2% to 8.4%, raising the enrolment ratios at the lower, upper and post secondary levels to 79.2%, 58.6% and 5.3% respectively by 1985. The rapid increase in the enrolment ratio at the upper secondary level from 41.1% in 1980 to 58.6% in 1985 is due to the implementation of the Government's policy of providing eleven years of universal education instead of nine years.

TABLE 12-3

PENINSULAR MALAYSIA: SCHOOL-AGE POPULATION AND ENROLMENT, 1980-85

	1980		1985		Average annual growth rate 1981-85 (%)
	('000)	(%)	('000)	(%)	
<i>Primary (6-11 years)</i>					
School-age population	1,767	47.3	1,951	48.5	2.0
School enrolment	1,694	65.6	1,869	63.3	2.0
Enrolment ratio (%)	(95.9)		(95.9)		
<i>Lower Secondary (12-14 years)</i>					
School-age population	845	22.7	895	22.3	1.2
School enrolment	636	24.6	709	24.0	2.2
Enrolment ratio (%)	(75.3)		(79.2)		
<i>Upper Secondary (15-16 years)</i>					
School-age population	560	15.0	587	14.6	1.0
School enrolment	230	8.9	344	11.6	8.4
Enrolment ratio (%)	(41.1)		(58.6)		
<i>Post Secondary (17-18 years)</i>					
School-age population	561	15.0	586	14.6	0.9
School enrolment	24	0.9	31	1.1	5.3
Enrolment ratio (%)	(4.3)		(5.3)		
<i>TOTAL (6-18 years)</i>					
School-age population	3,733	100.0	4,019	100.0	1.5
School enrolment	2,584	100.0	2,953	100.0	2.7
Enrolment ratio (%)	(69.2)		(73.5)		

549. *Household formation* in Peninsular Malaysia is projected to increase at an average rate of 3% per annum from about 2.3 million in 1980 to about 2.7 million by 1985, as shown in Table 12-4. This relatively high growth rate is due to a number of factors including higher incomes and

the shift in the age structure towards the middle-age years. The Malays are expected to experience a higher growth rate of 3.2% compared with the Chinese at 3%, Indians 2.6% and Others 1.1%. The three main ethnic communities, however, show a declining trend in their average household size resulting in an overall decline from 5.2 persons in 1980 to about five persons by 1985. The high rate of household formation means that substantial resources will have to be devoted to providing social amenities, particularly housing.

TABLE 12-4

PENINSULAR MALAYSIA: NUMBER AND AVERAGE SIZE OF HOUSEHOLD BY ETHNIC GROUP, 1980-85

	1980		1985		Average annual growth rate 1981-85 (%)
	('000)	(%)	('000)	(%)	
<i>Malay</i>					
Households	1,344	58.8	1,570	59.2	3.2
Persons	6,384	53.9	7,302	54.7	2.7
Persons per household	4.8		4.6		
<i>Chinese</i>					
Households	696	30.5	806	30.4	3.0
Persons	4,136	34.9	4,589	34.4	2.1
Persons per household	5.9		5.7		
<i>Indian</i>					
Households	226	9.9	257	9.7	2.6
Persons	1,239	10.5	1,370	10.2	2.0
Persons per household	5.5		5.3		
<i>Others</i>					
Households	18	0.8	19	0.7	1.1
Persons	90	0.7	96	0.7	1.3
Persons per household	5.0		5.1		
<i>TOTAL</i>					
Households	2,284	100.0	2,652	100.0	3.0
Persons	11,849	100.0	13,357	100.0	2.4
Persons per household	5.2		5.0		

550 During the FMP, the *population family health programme* aims at bringing down the estimated crude birth rate of 28.9 per 1,000 in 1980 to about 26 by 1985. To achieve this, the programme will have to cater for about 732,000 new participants. The implementation of the wider concept of family health programme will improve family planning services, strengthen family health care and nutrition and promote family development through community-oriented activities and services.

Labour force

551. The growth and structure of the labour force are shown in Table 12-5. The labour force is estimated to grow at a rate of 3.1% per annum from 5.4 million in 1980 to about 6.3 million by 1985. The high growth rate is due to the increase in the working-age population and in the participation rate of the labour force, particularly for females, as a consequence of rapid socio-economic development. The labour force in Sabah is projected to grow at 3.4% per annum compared with 3.1% in Peninsular Malaysia and Sarawak, partly due to inflow of workers into the state.

552. The labour force in the age group 25-39 years will experience a higher rate of growth of 4.9% per annum during the Plan period compared with the other age groups which grow at rates ranging from 1.4% to 2.7% per annum. Its share in the total labour force increases from 37.6% in 1980 to 41.1% by 1985, indicating a trend towards older, more experienced and better educated labour force. The proportion of the labour force in the younger age group 15-24 years is expected to decline from 34.2% to 31.4% during the period. A total of about 879,600 new entrants into the labour force is expected during the Plan period, of which about 83% will be in Peninsular Malaysia, 8% in Sabah and 9% in Sarawak. The majority of these are school leavers who are seeking jobs for the first time.

III. POPULATION DISTRIBUTION AND URBANIZATION

553. The growth rate of urban population is expected to remain high throughout the 1980s. As shown in Table 12-6, urban population in Peninsular Malaysia is expected to grow at an average rate of 4.1% per annum from about 4.1 million in 1980 to an estimated 5.1 million by 1985. As a result, the proportion of urban population is expected to increase from 35% to 38% during the Plan period, reflecting a higher growth rate of urban population compared with the rural population which is expected to decline from 65% to 62% during the period. The high rate of urbanization is attributable to the expected growth in the modern sectors of the economy, the development of new growth centres and rural-urban migration.

554. Among the ethnic communities in urban areas, the Malay urban population is expected to experience the highest rate of growth of 5.7% per annum in view of its increasing participation and involvement in the manufacturing, commercial and services sectors of the economy. In absolute terms, the Malay urban population is projected to increase from 1.4 million to about 1.8 million during the Plan period, while its share of the total urban population will increase from 32.8% to 35.3%. The average annual growth rates of urban Chinese and Indians are expected to be at 3.3% and 3.6%, respectively, with the Chinese still accounting for 51.7% of the total urban population by 1985.

TABLE 12-5

MALAYSIA: LABOUR FORCE GROWTH, 1980-85

Age group	1980		1985		Average annual growth rate 1981-85 (%)
	('000)	(%)	('000)	(%)	
PENINSULAR MALAYSIA					
15-24	1,536.9	34.1	1,637.6	31.2	1.3
25-39	1,717.4	38.0	2,139.4	41.7	5.0
40-49	715.7	15.9	811.4	15.5	2.5
50-59	425.4	9.4	480.5	9.2	2.5
60-64	116.7	2.6	125.7	2.4	1.5
Sub-total	4,512.1	100.0	5,244.6	100.0	3.1
(%)	(83.9)		(83.8)		
SABAH					
15-24	122.0	33.3	137.2	31.7	2.4
25-39	127.7	34.8	159.6	36.9	4.6
40-49	67.6	18.4	73.4	16.9	1.7
50-59	39.4	10.7	49.9	11.5	4.8
60-64	10.2	2.8	12.8	3.0	4.6
Sub-total	366.9	100.0	432.9	100.0	3.4
(%)	(6.8)		(6.9)		
SAARAWAK					
15-24	180.0	35.9	192.7	33.1	1.4
25-39	179.6	35.9	226.4	38.9	4.7
40-49	76.0	15.2	89.1	15.3	3.2
50-59	49.6	9.9	57.0	9.8	2.8
60-64	15.8	3.1	16.9	2.9	1.4
Sub-total	501.0	100.0	582.1	100.0	3.1
(%)	(9.3)		(9.3)		
MALAYSIA					
15-24	1,838.9	34.2	1,967.5	31.4	1.4
25-39	2,024.7	37.6	2,575.4	41.1	4.9
40-49	859.3	16.0	973.9	15.6	2.5
50-59	514.4	9.6	587.4	9.4	2.7
60-64	142.7	2.6	155.4	2.5	1.7
TOTAL	5,380.0	100.0	6,259.6	100.0	3.1
(%)	(100.0)		(100.0)		

TABLE 12.6

PENINSULAR MALAYSIA: POPULATION DISTRIBUTION BETWEEN
RURAL AND URBAN BY ETHNIC GROUP, 1980-85

('000)

	1980			1985			Average annual growth rate of urban population 1981-85 (%)
	Urban	(%)	Rural	(%)	Total	(%)	
Malay (%)	1,359 (21.3)	32.8	5,025 (78.7)	35.3	1,792 (24.5)	66.6	-5.7
Chinese (%)	2,234 (54.0)	53.8	1,902 (46.0)	51.7	2,627 (57.2)	23.7	3.3
Indian (%)	508 (41.0)	12.3	731 (59.0)	11.9	606 (44.2)	9.2	3.6
Others (%)	47 (52.2)	1.1	43 (47.8)	1.1	56 (58.3)	0.5	3.6
TOTAL (%)	4,148 (35.0)	100.0	7,701 (65.0)	100.0	5,081 (38.0)	100.0	4.1
					11,849 (100.0)	13,357 (100.0)	

IV. EMPLOYMENT AND LABOUR SITUATION

Employment situation, 1980

555. Towards the end of the Third Malaysia Plan (TMP) period, there were indications of labour shortages, particularly in agriculture, in the cultivation of *padi*, rubber and oil palm, and in specific industries and locations. In the estate sector, the problem is largely confined to Johor and estates in new development areas on the east coast of Peninsular Malaysia. In manufacturing, industries employing a large percentage of female workers have had problems in meeting their labour requirements. The construction sector also had problems in getting the requisite skilled manpower. On the other hand, wage trends in the private sector do not indicate general labour market tightness. In terms of labour force participation and hours of work, there still appears to be substantial room to meet increased labour demand, particularly in rural areas. Periodic tightness in certain segments of the labour market is to be expected in any expanding and dynamic economy.

Overall labour demand and supply

556. Whether Malaysia will shift, during this Plan period, from a situation of labour surplus, which has characterised its recent past, to one of general labour market tightness, depends on a number of factors. On the demand for labour, the most fundamental factor is the general level of economic activity. The rate of modernization in the agricultural sector and new land development will determine the degree to which labour will be used in agricultural activities while the rate and character of technological changes in manufacturing and the establishment of new industries will influence the pattern of industrial labour demand. Furthermore, the degree of labour mobility will affect the rate at which labour shortage in particular regions will be overcome by the flows from labour surplus areas.

557. On the supply side of labour, the size and quality of the labour force, reflected in labour force participation rates, and levels of education and skill attainment, will determine the ability of the economy to sustain a high level of economic activity without creating excessive labour market tightness. The supply of labour to various sectors and occupations will be further determined by relative wage levels and conditions of work. During 1981-85, the working-age population will grow at 2.8% per annum. The numbers available to the labour market will be further determined by labour force participation rates. The level of educational attainment in the population will influence the level of productivity of the labour force. The rate of growth of educational attainment in the Malaysian labour force has been quite substantial during the last decade and this trend will continue during the FMP period. New entrants into the labour market with upper secondary and post secondary education are estimated to grow at 9.2% and 5.8% per annum respectively, compared with the overall labour force growth of 3.1%.

The increase in educational attainment during 1981-85, through its effect of increasing the efficiency of the labour force, will offset the slow-down in the growth rate of working-age population so that the growth of productive capacity of the labour force will be maintained.

V. EMPLOYMENT GROWTH

558. Based on current plans and expectations, it is anticipated that about 860,600 new jobs will be generated during 1981-85, increasing total employment from about 5,093,500 to about 5,954,100. Given the present structure and trend of growth of adult population, labour force as shown in Table 12-7 is projected to grow at 3.1 % per annum. About 879,600 new job seekers will enter into the labour market during the period in addition to the existing 286,500 unemployed. When matched against the anticipated job creation during the Plan period, the unemployment rate will be reduced from 5.3% in 1980 to 4.9% in 1985. In absolute terms, however, about 19,000 additional persons will be unemployed, increasing the total unemployed to about 305,500 by 1985.

TABLE 12-7

MALAYSIA: SUMMARY OF POPULATION, LABOUR FORCE AND EMPLOYMENT, 1980-85

	1980	1985	Average annual growth rate 1981-85
	('000)	('000)	(%)
Population	14,261.2	16,179.5	2.6
Working-age population	8,103.9	9,314.2	2.8
Labour force	5,380.0	6,259.6	3.1
Employment	5,093.5	5,954.1	3.2
Unemployment	286.5	305.5	
Unemployment rate (%)	5.3	4.9	

559. Table 12-8 shows sectoral employment for the period 1981-85. The manufacturing sector will continue to be a major source of growth and employment in the eighties. On the basis of projected growth of 11% per annum, employment in the manufacturing sector is expected to grow at 5.9% per annum, providing about 267,000 new jobs or 31% of total new employment. Its share in total employment will thus increase from 15.8% in 1980 to 18% in 1985. Much of the growth in employment is expected to come from the manufacture of construction materials, industrial chemicals and chemical products, electrical and non-electrical machinery and apparatus, and rubber products. Small-scale industries will continue to play an important role in job creation, particularly in the less developed regions.

TABLE 12-8

MALAYSIA: EMPLOYMENT GROWTH BY SECTOR, 1980-85

Sector	1980			1985			Share in job creation 1981-85 (%)	Average annual growth rate of employment 1981-85 (%)	Average annual growth rate of real productivity 1981-85 (%)
	Estimated employment ('000)	Share of total (%)	Estimated employment ('000)	Share of total (%)	Increase 1981-85 ('000)				
Agriculture, forestry and fishing	2,066.9	40.6	2,138.4	35.9	71.5	8.3	0.7	2.3	
Mining and quarrying	89.6	1.7	91.9	1.5	2.3	0.3	0.5	5.2	
Manufacturing	803.1	15.8	1,070.1	18.0	267.0	31.0	5.9	4.8	
Construction	262.8	5.2	325.9	5.5	63.1	7.3	4.4	4.4	
Electricity, gas and water	49.5	1.0	61.3	1.0	11.8	1.4	4.4	5.4	
Transport, storage and communications	193.2	3.8	223.6	3.8	30.4	3.5	3.0	4.9	
Wholesale and retail trade, hotels and restaurants	648.5	12.7	816.9	13.7	168.4	19.6	4.7	3.1	
Finance, insurance, real estate and business services	52.1	1.0	64.5	1.1	12.4	1.4	4.4	2.9	
Government services	710.1	13.9	890.0	14.9	179.9	20.9	4.6	4.2	
Other services	217.7	4.3	271.5	4.6	53.8	6.3	4.5	3.0	
TOTAL	5,093.5	100.0	5,954.1	100.0	860.6	100.0	3.2	4.3	
Labour force	5,380.0		6,259.6						
Unemployment	286.5		305.5						
Unemployment rate (%)	5.3		4.9						

560. The agricultural sector is expected to provide 8.3% of the new jobs and its share in total employment will decline from 40.6% in 1980 to 35.9% by 1985. With output projected to grow at 3% per annum and employment at 0.7% per annum, about 77% of the increase in output is expected to come from increasing productivity of those employed in the sector. The bulk of the employment in the sector will continue to come from new land development undertaken by Federal Land Development Authority (FELDA) and other land development agencies.

561. Employment in government services and utilities will grow at 4.6% and 4.4% per annum respectively, reflecting the continuing commitment of the Government to improve the quality and scope of public services and to meet the increasing demand for education, health and other social services. About 191,700 jobs will be generated during the five-year period. Employment in wholesale and retail trade, construction, and transport, storage and communications will grow at 4.7%, 4.4% and 3% per annum, respectively.

562. During 1981-85, greater attention will be given to increase the skills of the labour force and improve efficiency through better management of human resources. Furthermore, to facilitate the mobility of labour, the provision of housing and other amenities will be further emphasised when undertaking investment in agriculture and industry.

563. The labour market monitoring system is to be strengthened to further improve the allocation of human resources. The availability of data on employment and unemployment by state from the 1980 Population and Housing Census of Malaysia and the quarterly Labour Force Surveys beginning in 1981 will enable a more detailed analysis of employment patterns and trends at the sub-national level. Continuous monitoring of trends in employment, shortages and surpluses of trained manpower and changes in wages will be obtained from the Employment Turnover Surveys undertaken since 1979. An integrated system of collecting wage statistics will be implemented during the FMP period.

VI. OCCUPATIONAL STRUCTURE OF EMPLOYMENT

Occupational structure

564. The demand for various categories of manpower will change as the economy develops and modernises. The structural transformation of the economy towards industrialization implies that there will be greater demand for scientific, technical and managerial personnel and skilled production workers.

565. The pattern of manpower requirements during the Plan period is shown in Table 12-9. Compared with the agricultural workers which grow at 0.7% per annum, all the other categories of workers increase at higher rates, ranging from 3.8% for the clerical workers to 4.9% for the service and

TABLE 12-9

MALAYSIA: EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP, 1980-85

Occupational group	1980		1985		Increase 1981-85 ('000)	Share of total (%)	Estimated employment ('000)	Share of total (%)	Share of increase 1981-85 (%)	Average annual growth rate 1981-85 (%)
	Estimated employment ('000)	Share of total (%)	Estimated employment ('000)	Share of total (%)						
MALAYSIA										
Professional and technical workers	278.3	5.5	346.6	5.8	68.3	8.0				4.5
Administrative and managerial workers	62.2	1.2	75.3	1.3	13.1	1.5				3.9
Clerical workers	277.7	5.4	334.0	5.6	56.3	6.5				3.8
Sales workers	481.9	9.5	592.1	9.9	110.2	12.8				4.2
Service workers	447.6	8.8	568.9	9.6	121.3	14.1				4.9
Agricultural workers	1,979.0	38.8	2,046.4	34.4	67.4	7.8				0.7
Production workers	1,566.8	30.8	1,990.8	33.4	424.0	49.3				4.9
TOTAL	5,093.5	100.0	5,954.1	100.0	860.6	100.0				3.2
PENINSULAR MALAYSIA										
Professional and technical workers	236.2	5.6	323.0	6.5	86.8	12.1				6.5
Administrative and managerial workers	51.2	1.2	59.9	1.2	8.7	1.2				3.2
Clerical workers	306.5	7.2	363.5	7.3	57.0	7.9				3.5
Sales workers	432.3	10.1	518.9	10.4	86.6	12.0				3.7
Service workers	351.3	8.2	444.7	8.9	93.4	13.0				4.8
Agricultural workers	1,474.8	34.6	1,518.3	30.5	43.5	6.0				0.6
Production workers	1,412.1	33.1	1,756.1	35.2	344.0	47.8				4.5
TOTAL	4,264.4	100.0	4,984.4	100.0	720.0	100.0				3.2

production workers. Professional and technical, and administrative and managerial workers increase at 4.5% and 3.9% per annum, respectively. In Peninsular Malaysia, a similar trend prevails, with the agricultural workers growing marginally at 0.6% while the professional and technical, administrative and managerial, service and production workers increase at 6.5%, 3.2%, 4.8% and 4.5%, respectively. This implies that the education and training systems will have to be geared even more towards producing professionals and sub-professionals as well as skilled workers in various trades.

566. As a result of the differentials in the growth rates among the various categories of workers, especially between the agricultural and non-agricultural workers, there is a marked reduction in the share of agricultural workers, declining from 38.8% in 1980 to 34.4% in 1985. On the other hand, the share of all the other categories of workers increases, the highest being that of the production workers from 30.8% to 33.4% during the period. Out of a total of about 860,600 additional manpower required, the bulk or 49.3% is for the production workers while the professional and technical, service and agricultural workers account for 8%, 14.1% and 7.8%, respectively. About 68,300 professional and technical workers, 13,100 administrative and managerial workers, 121,300 service workers and 424,000 production workers are required over the Plan period, with Peninsular Malaysia requiring the bulk of this additional manpower.

Occupational growth by sector

567. The growth and development in the various sectors of the economy will have bearing on the magnitude and types of manpower required as shown in Table 12-10. Overall, the workforce in the primary sector will increase at 0.7% per annum, compared with 4.9% for the secondary sector and 4.6% for the tertiary sector. Such a wide difference in the growth rates will cause a reduction in the share of the primary sector workforce from 40.6% in 1980 to 35.9% in 1985, while that of the secondary and tertiary sector workforce will increase from 26.5% to 28.7% and from 32.9% to 35.4% by 1985, respectively. The shift in employment from primary towards secondary and tertiary sectors is reflective of the structural changes in the economy. By 1985, the workforce in each of the primary and tertiary sectors is projected to be around 2.1 million while that in the secondary sector will be about 1.7 million.

568. In the *primary sector*, the bulk of the workforce will be agricultural workers, accounting for 94.9% by 1985, almost the same proportion as in 1980. Within the sector, the professional and technical workers grow at a rate of 2.2%, compared with only 0.7% for the agricultural workers, indicating continuing modernization of agriculture during the period. About 71,500 additional manpower will be required during 1981-85, accounting for about 8.3% of the total requirement. Of these, some 900 workers will be from the professional and technical category which includes agronomists, veterinarians, food technologists, soil scientists and silviculturists,

TABLE 12-10

MALAYSIA: EMPLOYMENT BY SECTOR AND MAJOR OCCUPATIONAL GROUP, 1980-85

Sector	Professional and technical workers	Administrative and managerial workers	Clerical workers	Sales workers	Service workers	Agricultural workers	Production workers	Total
	('000)	(%)	('000)	(%)	('000)	(%)	('000)	(%)
1980								
Primary sector ²	8.0	2.9	2.3	3.7	11.1	4.0	2.3	0.5
	(0.4)		(0.1)		(0.6)		(0.1)	
Secondary sector ³	30.0	10.8	36.0	57.9	83.3	30.0	17.5	3.6
	(2.2)		(2.7)		(6.2)		(1.3)	
Tertiary sector ⁴	240.3	86.3	23.9	38.4	183.3	66.0	462.1	95.9
	(14.3)		(1.4)		(10.9)		(27.6)	
Total (%)	278.3	100.0	62.2	100.0	277.7	100.0	481.9	100.0
	(5.5)		(1.2)		(5.4)		(9.5)	
1985								
Primary sector	8.9	2.6	2.4	3.2	11.4	3.4	2.4	0.4
	(0.4)		(0.1)		(0.5)		(0.1)	
Secondary sector	38.6	11.1	43.0	57.1	99.5	29.8	22.7	3.8
	(2.3)		(2.5)		(5.8)		(1.3)	
Tertiary sector	299.1	86.3	29.9	39.7	223.1	66.8	567.0	95.8
	(14.2)		(1.4)		(10.6)		(27.0)	
Total (%)	346.6	100.0	75.3	100.0	334.0	100.0	592.1	100.0
	(5.8)		(1.3)		(5.6)		(9.9)	
Increase, 1981-85								
Primary sector	0.9	1.3	0.1	0.8	0.3	0.5	0.1	0.1
	(1.3)		(0.1)		(0.4)		(0.1)	
Secondary sector	8.6	12.6	7.0	53.4	16.2	28.8	5.2	4.7
	(2.4)		(1.9)		(4.5)		(1.4)	
Tertiary sector	58.8	86.1	6.0	45.8	39.8	70.7	104.9	95.2
	(13.8)		(1.4)		(9.3)		(24.6)	
Total (%)	68.3	100.0	13.1	100.0	56.3	100.0	110.2	100.0
	(8.0)		(1.5)		(6.5)		(12.8)	
Average annual growth rate, 1981-85 (%)								
Primary sector	2.2		0.9		0.5		0.9	
Secondary sector	5.2		3.6		3.6		5.3	
Tertiary sector	4.5		4.6		4.0		4.2	
All sectors	4.5		3.9		3.8		4.2	
							4.9	
							0.7	
							1.2	
							5.0	
							5.2	
							4.9	
							4.6	
							3.2	

² Agriculture including forestry, livestock and fishing.³ Mining and quarrying, manufacturing, construction, and transport, storage and communications.⁴ Trade, financial services, government services, utilities and other services.

and another 100 workers from the administrative and managerial category. The bulk or about 91.5% of the requirement is for the agricultural workers which include farm managers, supervisors and machinery operators, livestock workers and loggers.

569. In the *secondary sector*, 86.2% of the workforce in 1985 will comprise production workers, a higher proportion compared to 1980. Within the sector, all categories of workers are expected to grow at higher rates compared with the primary sector. The professional and technical workers grow at 5.2%, sales workers at 5.3% and production workers at 5% per annum. Some 362,800 additional manpower will be required during the Plan period, accounting for 42.2% of the total requirement. While about 88.4% of these will be for production workers, the requirements for the professional and technical, and administrative and managerial workers are also substantial, amounting to about 8,600 and 7,000, respectively. Some 320,700 production workers will be required by the sector of which about two-thirds will comprise skilled and semi-skilled workers.

570. The composition of the workforce in the *tertiary sector* is more balanced. In 1985, except for the agricultural, and administrative and managerial workers which together will account for less than 1.9%, all the other categories will be well represented with their share ranging from 10.6% for the clerical workers to 27% for the sales workers. Except for the agricultural workers which increase at 3% per annum, all other occupational groups grow at a reasonably high rate. The service, production, professional and technical, and administrative and managerial workers increase at 5%, 5.2%, 4.5% and 4.6%, respectively. In absolute terms, an additional 426,300 workers will be required by the sector, accounting for 49.5% of the total requirement. Some 116,400 service workers, 104,900 sales workers and 99,000 production workers are required during the Plan period. Of the 58,800 professional and technical workers required, the bulk is made up of nurses and primary and secondary school teachers. Some 6,000 administrators and managers, and about 39,800 clerical workers will also be required, the latter accounting for 70.7% of the requirement for all sectors.

VII. SUPPLY OF TRAINED MANPOWER

571. The growth of the economy during 1981-85 calls for continued expansion in the supply of trained and skilled personnel at the professional, sub-professional and technician levels. Greater emphasis will be placed on increasing the output of degree, diploma and certificate holders in the scientific, technical and managerial fields so that manpower shortages will not pose a serious constraint to development. Efforts will also be made to further upgrade the quality and raise the productivity of the workforce to enhance their incomes and growth of the economy.

High and middle level manpower

572. There will be an overall expansion in the supply of degree and diploma holders from the higher educational institutions in the country as shown in Table 12-11. The annual output of degree graduates will increase steadily from about 4,300 in 1981 to about 6,200 in 1985, and the diploma holders, from 4,200 to about 6,000. A total of about 27,400 degree and 25,600 diploma students will graduate during 1981-85, of which half will be in the science and technical disciplines. Although, overall, less diploma holders will graduate compared with degree holders, there will be more sub-professionals produced in the agricultural and technical courses. The enrolments at both the degree and diploma levels will increase by 38.9% and 60%, respectively, indicating continuing expansion in the supply of high and middle level manpower.

573. At the *degree level*, efforts to increase the output in science and technical courses will continue to be taken as indicated in the higher enrolment increases for applied and natural sciences, pharmacy, architecture and town planning and medicine. The total enrolment in science and technical courses is expected to increase by 49.4% and 52.2%, respectively, compared with 26.6% for the arts, leading to an improvement in the science-arts enrolment ratio from 52:48 in 1980 to about 56:44 by 1985. As a result, there will be an increase in the share of science and technical output from 45.3% in 1981 to 51.5% by 1985 while that of the arts output will fall from 54.7% to 48.5%. About 1,580 medical doctors and dentists, 2,190 engineers, 470 architects and town planners, 180 surveyors and 920 graduates in agriculture and related sciences will be produced.

574. At the *diploma level*, emphasis will be given to the training of personnel for the commercial and technical fields. To meet the increasing demand for sub-professional technical manpower, the enrolment in surveying will increase by 60.2% and in agriculture and related sciences by 44.6% by 1985. The enrolment in economics and business which includes accountancy, banking and hotel management and catering will increase by about 116%. During 1981-85, a total of about 4,900 diploma holders in engineering, 900 in architecture and town planning, 1,100 in surveying, 1,800 in agriculture and 8,000 in economics and business will be produced.

Skilled and semi-skilled manpower

575. The training of skilled and semi-skilled manpower at the certificate level will be considerably expanded during the FMP in view of the increasing demand for skilled workers, particularly in the rapidly expanding manufacturing and construction industries as well as in the high-technology industries. While efforts will be made in the public sector to increase the number and capacity of vocational and industrial training institutions, the participation of the private sector in supplementing and complementing the public sector training programmes is crucial. The recent establishment of the Manpower Development Board (MDB) will bring about closer cooperation and more active participation of the private sector in training efforts.

TABLE 12-11

MALAYSIA: ENROLMENT AND OUTPUT OF DEGREE AND DIPLOMA HOLDERS BY TYPE OF EDUCATION FROM LOCAL HIGHER EDUCATION INSTITUTIONS, 1981-85

Course	Enrolment		Increase 1981-85 (%)	Output					Total output 1981-85
	1980	1985		1981	1982	1983	1984	1985	
DEGREE									
Arts									
Arts and humanities ⁵	6,139	7,047	14.8	1,419	1,610	1,858	1,737	1,759	8,383
Economics and business ⁶	3,170	4,743	49.6	952	979	1,121	1,203	1,263	5,518
Sub-total (%)	9,309 (47.8)	11,790 (43.6)	26.6	2,371 (54.7)	2,589 (51.9)	2,979 (50.9)	2,940 (48.8)	3,022 (48.5)	13,901 (50.7)
Science									
Medicine and dentistry	1,409	2,240	59.0	297	293	304	341	341	1,576
Agriculture and related sciences ⁷	729	840	15.2	154	169	199	199	199	920
Other sciences ⁸	5,961	9,023	51.4	945	1,490	1,812	1,919	1,994	8,160
Sub-total (%)	8,099 (41.6)	12,103 (44.7)	49.4	1,396 (32.2)	1,952 (39.2)	2,315 (39.5)	2,459 (40.8)	2,534 (40.7)	10,656 (38.9)
Technical									
Engineering	1,666	2,443	46.6	473	345	443	458	468	2,187
Architecture and town planning	251	416	65.7	70	63	87	117	131	468
Surveying	162	277	71.0	25	33	31	36	57	182
Other technical ⁹	—	29	—	—	—	—	14	14	28
Sub-total (%)	2,079 (10.6)	3,165 (11.7)	52.2	568 (13.1)	441 (8.9)	561 (9.6)	625 (10.4)	670 (10.8)	2,868 (10.4)
TOTAL (%)	19,487 (100.0)	27,058 (100.0)	38.9	4,335 (100.0)	4,982 (100.0)	5,855 (100.0)	6,024 (100.0)	6,226 (100.0)	27,422 (100.0)

DIPLOMA

Arts

Arts and humanities ¹⁰	1,705	3,322	94.8	562	779	977	1,022	1,135	4,475
Economics and business ¹¹	4,377	9,467	116.3	1,335	1,338	1,556	1,854	2,134	8,217
Sub-total (%)	6,082 (41.2)	12,789 (54.1)	110.3	1,897 (45.2)	2,117 (45.5)	2,533 (49.4)	2,876 (51.2)	3,269 (54.1)	12,692 (49.5)

Science

Agriculture and related sciences ¹²	980	1,417	44.6	354	370	370	370	370	1,834
Other sciences ¹³	2,482	3,097	24.8	652	708	699	788	788	3,635
Sub-total (%)	3,462 (23.4)	4,514 (19.1)	30.4	1,006 (23.9)	1,078 (23.2)	1,069 (20.8)	1,158 (20.6)	1,158 (19.2)	5,469 (21.3)

Technical

Engineering ¹⁴	3,459	4,067	17.5	902	996	1,005	1,007	1,015	4,925
Architecture and town planning	739	855	15.7	137	167	188	200	228	920
Surveying	635	1,017	60.2	173	193	229	268	269	1,132
Other technical ¹⁵	399	402	0.8	83	98	105	105	105	496
Sub-total (%)	5,232 (35.4)	6,341 (26.8)	21.2	1,295 (30.9)	1,454 (31.3)	1,527 (29.8)	1,580 (28.2)	1,617 (26.8)	7,473 (29.2)
TOTAL (%)	14,776 (100.0)	23,644 (100.0)	60.0	4,198 (100.0)	4,649 (100.0)	5,129 (100.0)	5,614 (100.0)	6,044 (100.0)	25,634 (100.0)

⁵ Includes law, Islamic studies, language, literature and Malay culture, and social sciences.

⁶ Includes accountancy, business management, resource economics and agri-business.

⁷ Includes home science technology.

⁸ Includes pharmacy, applied sciences, environmental studies, food technology and science with education.

⁹ Property management.

¹⁰ Includes law and administration, mass communication, art and design, library science and secretarial studies.

¹¹ Includes accountancy, banking, and hotel management and catering.

¹² Includes home science technology.

¹³ Includes computer studies, applied sciences and mathematics.

¹⁴ Includes also building technology, automotive technology and electronic technology.

¹⁵ Property management and material technology.

Greater integration of training programmes will be effected with more on-the-job and inplant training. The MDB, in conjunction with the private sector, will devise a suitable financing scheme for industrial training.

576. The training programmes of agencies such as that of the Public Works Department, the Telecommunications Department, the Division of Fisheries, the Division of Veterinary Services, the Public Services Department and others will be improved and expanded. They will directly contribute towards increasing the technical, professional and managerial capability of staff in the public sector. The Industrial Training Institutes will continue to offer skill-upgrading courses to those who are already employed in industry. The Ministry of Labour and Manpower will also set up an Advanced Skill Centre to provide courses for upgrading of skills to the level of master craftsmen. In addition, courses for technicians, industrial foremen and instructors will also be offered at this Centre. The National Industrial Training and Trade Certification Board (NITTCB) will continue to play an important role in establishing trade standards. Studies on the employment experience of graduates from training institutions will be undertaken to improve the quality of training programmes.

577. Table 12-12 shows the enrolment and output of public sector training institutions. The enrolment is projected to increase from 27,600 in 1980 to about 48,000 by 1985. A total of 94,500 youth is expected to be trained during 1981-85, with annual output increasing steadily from 15,400 in 1981 to 24,400 in 1985. More than 40% of the total output or about 40,400 will be trained in vocational schools, 15,300 in technical schools and 13,100 in various *Institusi Kemahiran MARA*. In line with the emergence of high-technology industries, efforts will be geared towards training more skilled technicians and craftsmen in the engineering, building and printing trades. As shown in Table 12-13, a total of 43,500 youth is expected to be trained in the engineering trades during 1981-85, the bulk of whom will be in the mechanical and electrical trades. The output of skilled manpower in the building trades is expected to be about 15,300 during the Plan period.

VIII. CONCLUSION

578. Population and labour force are expected to grow at fairly high rates during the Plan period, although lower than in the past. However, continuing good performance of the economy envisaged during 1981-85 will generate sufficient job opportunities, further reducing the unemployment rate from 5.3% in 1980 to about 4.9% by 1985. As the economy grows, the occupational structure of employment will change, indicating a need for continuous review of education and training systems in line with the country's manpower requirements. Greater efforts are required to effect better coordination of the public sector training programmes and between the public and private sector training activities.

TABLE 12-12

MALAYSIA: ENROLMENT AND OUTPUT OF SKILLED AND SEMI-SKILLED MANPOWER FROM PUBLIC TRAINING INSTITUTIONS, 1981-85¹⁶

Institution	Enrolment		Increase 1981-85 (%)	Output					Total output, 1981-85
	1980	1985		1981	1982	1983	1984	1985	
Vocational schools	12,595	21,054	67.2	6,589	7,238	7,922	8,765	9,871	40,385
Technical schools	5,220	6,520	24.9	2,836	2,900	3,150	3,150	3,220	15,256
Youth training centres	1,331	1,617	21.5	1,057	1,053	1,217	1,217	1,217	5,761
Agricultural institutes	1,188	1,532	28.9	465	447	447	447	596	2,402
Industrial Training Institutes ..	1,538	3,540	130.2	940	935	1,010	1,340	1,620	5,845
<i>Institut Kemahiran MARA</i>	2,871	6,704	133.5	2,209	1,994	2,240	2,618	4,020	13,081
<i>Institusi Perdagangan MARA</i> ..	270	1,850	585.2	200	—	540	1,340	1,660	3,740
<i>Kolej Tunku Abdul Rahman</i>	451	1,945	331.3	230	321	506	665	811	2,533
<i>Politeknik Ungku Omar</i>	1,551	1,744	12.4	638	727	742	752	752	3,611
<i>Politeknik Kuantan</i>	575	1,330	131.3	213	231	330	561	594	1,929
TOTAL	27,590	47,836	73.4	15,377	15,846	18,104	20,855	24,361	94,543

¹⁶ This is the certificate-level manpower and the courses provided at these institutions include various engineering trades, building trades, printing, trades as well as courses in commerce, agricultural science, home science and other related courses. The data include enrolment and output from skill-upgrading courses undertaken by Industrial Training Institutes and *Institut Kemahiran MARA*.

TABLE 12-13

MALAYSIA: OUTPUT OF SKILLED AND SEMI-SKILLED MAN-
POWER BY COURSE FROM PUBLIC TRAINING
INSTITUTIONS, 1981-85¹⁷

Course	Output					Total output 1981-85
	1981	1982	1983	1984	1985	
<i>Engineering trades</i>						
Mechanical trades ¹⁸	4,726	4,989	5,202	5,595	6,636	27,148
Electrical trades ¹⁹	2,434	2,388	2,676	3,041	3,827	14,366
Civil engineering trades ²⁰	277	331	364	430	459	1,861
Other engineering trades ²¹	26	29	29	29	29	142
<i>Building trades</i> ²²	2,908	2,745	2,876	3,048	3,705	15,282
<i>Printing trades</i> ²³	80	80	80	217	269	726
<i>Commerce</i>	1,637	1,691	2,303	3,404	3,724	12,759
<i>Agriculture</i>	1,135	1,357	1,437	1,437	1,666	7,032
<i>Home science</i> ²⁴	1,033	976	1,152	1,232	1,248	5,641
<i>Others</i> ²⁵	456	440	625	752	853	3,126
<i>Skill-upgrading courses</i>	195	220	220	245	450	1,330
TOTAL	14,907	15,246	16,964	19,430	22,866	89,413

¹⁷ Data from Sarawak vocational and technical schools are not included as data by course are not available.

¹⁸ Includes courses such as general mechanic, general machining, tool and die making, motor vehicle mechanic, welding and sheet metal work.

¹⁹ Includes electrical installation and maintenance, radio and T.V. servicing, refrigeration and air conditioning, electrical fitting and armature winding.

²⁰ Includes construction.

²¹ Includes material technology.

²² Includes carpentry and joinery, woodwork machining, bricklaying and plumbing.

²³ Includes hand composing, machine composing, offset printing, bookbinding and letterpress.

²⁴ Includes sewing, cooking and catering, cosmetology and hair dressing.

²⁵ Includes surveying, architectural draftsmanship, photography, laboratory science technician, dispensing optics, computer programming and information processing, confectionery and hotel catering.

CHAPTER XIII

Public Sector Programme and its Financing

I. INTRODUCTION

579. The public sector development programmes during the Fourth Malaysia Plan (FMP) will continue to focus on attaining the objectives of the New Economic Policy (NEP) in the context of an expanding economy. The development efforts of the Government will also be directed to the poorer states to achieve regional balance in development. Defence, however, assumes greater importance compared with previous plans in view of security development in the region.

II. SIZE AND PATTERN OF PUBLIC SECTOR DEVELOPMENT PROGRAMME

580. Total allocation for public sector development programmes during the Plan period amounts to \$42,830 million. The share of Federal Government in the total allocation amounts to \$39,330 million, state governments, \$1,380 million and statutory authorities, \$2,120 million.

581. The allocations by sector for the FMP are shown in Table 13-1. A sum of \$22,765 million is provided for the economic sector, representing about 57.9% of the Federal allocation. A large portion of this, amounting to \$8,359 million, is for agriculture and rural development reflecting the Government's objective to increase income through higher farm productivity and creation of greater employment opportunities in the sector. An allocation of \$5,433 million is provided for programmes under commerce and industry, the bulk of which is for agencies dealing with restructuring programmes such as *Majlis Amanah Rakyat* (MARA), *Perbadanan Nasional Berhad* (PERNAS), State Economic Development Corporations (SEDCs), Urban Development Authority (UDA) and *Permodalan Nasional Berhad* (PNB) to accelerate the restructuring process, the creation of employment as well as to correct regional imbalances. The transport sector which is provided with an allocation of \$4,116 million, will continue to accord priority to rural transportation and expansion of inter-urban road network. The allocation

TABLE 13-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE, 1981-85

Sector	Revised TMP allocation, 1976-80		Estimated TMP expenditure, 1976-80		FMP allocation, 1981-85	
	\$ million	%	\$ million		\$ million	%
I. ECONOMIC	18,480.55	59.3	13,570.79		22,764.50	57.9
(a) AGRICULTURE AND RURAL DEVELOPMENT	6,464.31	20.7	4,672.41		8,359.09	21.3
(i) Agriculture	943.92	3.0	524.78		1,856.60	4.7
Integrated Agriculture Development Projects (Ministry of Agriculture)	254.70	0.8	198.23		892.00	2.3
Department of Agriculture	348.25	1.1	199.28		383.60	1.0
Kemubu Agricultural Development Authority (KADA)	12.09	—	7.36		28.00	—
Muda Agricultural Development Authority (MADA)	5.75	—	5.72		33.00	0.1
Subsidies (Ministry of Agriculture)	300.00	1.0	101.80		500.00	1.3
Pineapple Replanting	23.13	0.1	12.39		20.00	—
(ii) Rubber Replanting	262.83	0.8	198.23		316.66	0.8
(iii) Agriculture Credit, Marketing, Processing and Co-operatives	425.87	1.4	269.68		761.32	1.9
Bank Pertanian	105.77	0.3	37.50		167.00	0.4
Federal Agricultural Marketing Authority (FAMA)	81.50	0.3	39.64		165.00	0.4
National Padi and Rice Authority	73.80	0.2	49.54		118.92	0.3
Farmers' Organization Authority	120.51	0.4	117.49		247.40	0.7
Co-operative Development	25.62	0.1	9.99		50.00	0.1
National Tobacco Board	18.67	0.1	15.52		13.00	—
(iv) Drainage and Irrigation	778.61	2.5	554.84		860.32	2.2
(v) Livestock	168.75	0.6	127.22		241.00	0.6
(vi) Fisheries	322.63	1.0	150.84		434.62	1.1
(vii) Land and Regional Development	3,432.53	11.0	2,751.88		3,732.57	9.5
Federal Land Development Authority (FELDA)	2,014.70	6.5	1,732.71		2,040.96	5.2
Federal Land Consolidation and Rehabilitation Authority (FELCRA)	209.98	0.7	192.80		472.08	1.2
Pahang Tenggara Development Authority (DARA)	458.78	1.5	371.54		313.00	0.8
Trengganu Tengah Development Authority (KETENGAH)	163.76	0.5	111.84		250.00	0.7
Johor Tenggara Development Authority (KEJORA)	239.92	0.8	195.67		209.03	0.5
Kelantan Selatan Development Authority (KESEDAR)	115.60	0.4	24.70		250.00	0.7
Lembaga Kemajuan Tanah Kelantan (TAKDIR)	37.85	0.1	7.47		27.00	0.1
Bintulu Development Authority (BDA)	2.00	—	—		26.00	—
Security Land Scheme (Pahang)	14.10	—	6.21		25.00	—
Lembaga Kemajuan Wilayah Kedah	—	—	—		3.00	—
Sabah Land Development Board	34.80	0.1	20.30		—	—
Sarawak Land Development Board	134.60	0.4	82.20		102.30	0.3
Sarawak Land Consolidation and Rehabilitation Authority (SALCRA)	—	—	—		14.20	—
Others	6.44	—	6.44		—	—
(viii) Agricultural Research	89.53	0.3	69.33		93.00	0.3
Malaysian Agricultural Research and Development Institute (MARDI)	65.65	0.2	49.69		67.00	0.2
Palm Oil Research Institute Malaysia (PORIM)	4.74	—	3.73		4.00	—
Department of Agriculture (Sabah and Sarawak)	19.14	0.1	15.91		22.00	0.1
(ix) Forestry	39.64	0.1	25.61		63.00	0.2
(b) MINERAL RESOURCES DEVELOPMENT	21.29	0.1	15.70		48.00	0.1
Geological Department	17.11	0.1	12.81		30.00	0.1
Mines Department	4.18	—	2.89		18.00	—

TABLE 13-1—(cont.)

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE,
1981-85—(cont.)

Sector	Revised TMP allocation, 1976-80		Estimated TMP expenditure, 1976-80		FMP allocation, 1981-85	
	\$ million	%	\$ million	\$ million	%	
(c) COMMERCE AND INDUSTRY	4,255.98	13.7	3,246.21	5,433.05	13.8	
(i) Economic Enterprises	3,359.13	10.8	2,779.16	4,676.05	11.9	
Perbadanan Nasional Berhad (PERNAS)	382.53	1.2	300.50	200.00	0.5	
Urban Development Authority (UDA)	300.00	1.0	254.60	568.79	1.5	
Majlis Amanah Rakyat (MARA)	231.92	0.7	212.75	495.30	1.3	
State Economic Development Corporations (SEDCs)	662.67	2.1	493.13	1,131.49	2.9	
Malaysian International Shipping Corporation (MISC)	302.89	1.0	292.90	200.00	0.5	
Malaysia Shipyard and Engineering Sdn Bhd (MSE)	97.43	0.3	86.64	—	—	
Credit Export Guarantee Scheme	2.50	—	2.50	5.00	—	
Permodalan Nasional Berhad (PNB)	500.00	1.6	425.00	1,500.97	3.8	
Kompleks Kewangan	80.00	0.3	80.00	25.00	—	
Bank Simpanan Nasional	6.00	—	6.00	20.00	—	
Bank Rakyat	155.00	0.5	155.00	—	—	
Bank Bumiputra	232.00	0.8	189.00	—	—	
Malayan Banking Bhd	48.00	0.1	—	—	—	
Bank Kemajuan Perusahaan	120.00	0.4	95.00	100.00	0.3	
Bank Pembangunan	100.00	0.3	90.00	300.00	0.8	
Malaysian Handicraft Development Corporation	31.19	0.1	28.14	40.00	0.1	
Syarikat Gula Padang Terap Bhd	77.00	0.3	43.50	8.50	—	
ASEAN Rock-Salt	—	—	—	19.00	—	
Syarikat Malaysian Explosive Sdn Bhd	30.00	0.1	24.50	62.00	0.2	
(ii) Petty Traders	30.00	0.1	18.70	50.00	0.1	
(iii) Markets	16.48	0.1	7.30	50.00	0.1	
(iv) Energy and Industrial Research	63.69	0.2	17.90	77.00	0.2	
Tun Ismail Atomic Research Centre	47.94	0.1	9.85	40.00	0.1	
Standards and Industrial Research Institute Malaysia (SIRIM)	15.75	0.1	8.05	37.00	0.1	
(v) Heavy Industries Corporation	125.00	0.4	—	125.00	0.3	
(vi) Agro-based Industries	152.64	0.5	113.52	151.00	0.4	
Malaysian Rubber Development Corporation (MARDEC)	101.39	0.3	71.70	71.00	0.2	
Food Industries Malaysia (FIMA)	51.25	0.2	41.82	80.00	0.2	
(vii) Tourism	27.19	0.1	21.28	40.00	0.1	
Tourist Development Corporation (TDC)	27.19	0.1	21.28	40.00	0.1	
(viii) Other Programmes	481.85	1.5	288.35	264.00	0.7	
Urban Programme (Selangor Government)	375.00	1.2	262.50	225.00	0.6	
Industrial Estate	0.40	—	0.40	—	—	
Purchase of Capital Assets	100.00	0.3	19.00	—	—	
Overseas Buildings (Ministry of Trade and Industry)	6.45	—	6.45	12.00	—	
Bahagian Perniagaan-perniagaan Kecil (Kementerian Perdagangan dan Perindustrian)	—	—	—	10.00	—	
Perbadanan Kemajuan Filem Nasional	—	—	—	17.00	—	

TABLE 13.1—(cont.)

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE,
1981-85—(cont.)

Sector	Revised TMP allocation, 1976-80		Estimated TMP expenditure, 1976-80		FMP allocation, 1981-85	
	\$ million	%	\$ million	\$ million	%	
(d) TRANSPORT	4,462.99	14.3	2,842.75	4,116.07	10.5	
(i) Roads and Bridges	2,595.46	8.3	1,765.46	2,318.07	5.9	
(a) Highway Corporation	—	—	—	500.00	1.2	
(b) Other Road Programmes	2,038.73	6.5	1,576.94	1,045.51	2.7	
P.W.D. Roads	2,013.11	6.4	1,559.91	1,025.51	2.7	
Kuala Lumpur City Hall Roads	25.62	0.1	17.03	20.00	—	
(c) Rural and Security Roads	556.73	1.8	188.52	772.56	2.0	
Rural Roads	517.00	1.7	165.95	569.56	1.5	
Kampung Roads	39.73	0.1	22.57	193.00	0.5	
Security Roads	—	—	—	10.00	—	
(ii) Railways	350.47	1.1	168.35	300.00	0.7	
(iii) P.W.D. Plant and Equipment	167.63	0.5	143.60	150.00	0.4	
(iv) Ports and Marines	859.09	2.8	557.08	736.00	1.9	
Ports	826.63	2.7	548.36	660.00	1.7	
Marine Department	32.46	0.1	8.72	76.00	0.2	
(v) Civil Aviation	490.34	1.6	208.26	612.00	1.6	
(e) COMMUNICATIONS	1,252.71	4.0	1,152.08	1,523.52	3.9	
(i) Telecommunications	1,200.00	3.9	1,112.67	1,399.52	3.6	
(ii) Postal	41.86	0.1	31.77	104.00	0.3	
(iii) Meteorological Services	10.85	—	7.64	20.00	—	
(f) ENERGY AND PUBLIC UTILITIES	1,931.69	6.2	1,582.52	3,248.76	8.2	
(i) Water Supply	524.27	1.7	377.22	1,085.77	2.7	
(a) P.W.D. Programmes	377.13	1.2	254.12	736.00	1.9	
(b) Rural Water Supply	147.14	0.5	123.10	349.77	0.9	
(ii) Electricity	1,407.42	4.5	1,205.30	2,162.99	5.5	
(a) Electricity Boards	1,126.42	3.6	980.92	1,640.49	4.2	
(b) Rural Electrification	281.00	0.9	224.38	522.50	1.3	
(g) FEASIBILITY STUDIES	91.58	0.3	59.12	36.00	0.1	
II. SOCIAL	5,494.63	17.6	3,635.99	6,388.14	16.2	
(a) EDUCATION AND TRAINING	2,152.79	6.9	1,548.16	2,992.83	7.6	
(i) Ministry of Education	1,812.30	5.8	1,308.14	2,243.89	5.7	
(ii) Majlis Amanah Rakyat (MARA) (Scholarships, Loans and Institut Kemahiran MARA)	275.01	0.9	214.12	660.54	1.7	
(iii) National Institute of Public Administration (INTAN)	26.34	0.1	12.77	34.00	0.1	
(iv) National Productivity Centre	12.36	—	4.72	13.00	—	
(v) Industrial Training	26.78	0.1	8.43	41.40	0.1	
(b) HEALTH AND POPULATION	529.42	1.7	307.40	588.44	1.5	
(i) Ministry of Health	462.78	1.6	281.89	558.44	1.4	
(ii) National Family Planning Board	46.49	0.1	25.36	30.00	0.1	
(iii) Other Programmes	0.15	—	0.15	—	—	
(c) INFORMATION AND BROADCASTING	110.20	0.3	69.10	142.62	0.4	
(i) Ministry of Information	14.53	—	4.50	32.80	0.1	
(ii) Broadcasting Department	89.40	0.3	60.00	89.90	0.2	
(iii) Information Department	6.27	—	4.60	19.92	0.1	
(d) HOUSING	1,705.53	5.3	1,291.04	1,458.00	3.7	
(i) Public Housing in States	483.74	1.6	327.86	799.00	2.0	
(ii) Public Housing in Federal Territory	156.34	0.5	113.70	201.00	0.5	
(iii) Government Officers Housing Loans Scheme	950.00	3.0	803.25	400.00	1.0	
(iv) Others	115.45	0.4	46.23	58.00	0.2	

TABLE 13-1—(cont.)

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE,
1981-85—(cont.)

Sector	Revised TMP allocation, 1976-80		Estimated TMP expenditure, 1976-80		FMP allocation, 1981-85	
	\$ million	%	\$ million		\$ million	%
(e) SEWERAGE	170.95	0.5	69.10		200.00	0.5
(f) CULTURE, YOUTH AND SPORTS	93.66	0.3	54.64		241.48	0.6
(i) Ministry of Culture, Youth and Sports	58.17	0.2	32.82		165.85	0.4
(ii) National Archives	10.02	0.1	5.57		12.15	—
(iii) National Library	6.45	—	3.57		29.48	0.1
(iv) Museum	9.70	—	6.56		14.00	—
(v) Department for Protection of Wildlife, National Park and Zoo Negara	6.32	—	5.27		15.00	0.1
(vi) National Cemetery	3.00	—	0.85		5.00	—
(g) LOCAL COUNCILS, WELFARE AND COMMUNITY SERVICES	225.87	0.7	115.88		347.63	0.9
(i) Religious Projects	26.15	0.1	6.19		54.00	0.1
(ii) Grants for Projects in Town and Local Council Areas	72.76	0.2	50.37		100.00	0.3
(iii) Aborigines Department	45.85	0.1	21.70		40.13	0.1
(iv) Ministry of Welfare Services	28.47	0.1	11.75		53.73	0.1
(v) Provision for Infrastructure (Ministry of Housing and Local Government)	29.57	0.1	11.03		69.77	0.2
(vi) Other Programmes	23.07	0.1	14.84		30.00	0.1
(h) KAMPUNG AND COMMUNITY DEVELOPMENT	172.00	0.6	113.75		202.14	0.5
(i) Kampung Rehabilitation	100.00	0.3	55.80		100.00	0.3
(ii) Community Development (KEMAS)	11.62	0.1	8.64		22.04	—
(iii) Other Projects in Kampung and New Villages	60.38	0.2	49.31		80.10	0.2
(i) PURCHASE OF LAND	334.21	1.1	66.90		215.00	0.5
(i) Purchase of Land	310.61	1.0	53.40		200.00	0.5
(ii) Land Development in Federal Territory	23.60	0.1	13.50		15.00	—
III. SECURITY	6,309.41	20.3	3,529.80		9,371.55	23.8
(a) DEFENCE	4,969.43	16.0	2,672.36		7,190.00	18.3
(b) INTERNAL SECURITY	1,339.98	4.3	857.44		2,181.55	5.5
(i) Police	1,231.95	3.9	798.02		2,035.00	5.2
(ii) Immigration	20.65	0.1	11.45		36.15	0.1
(iii) Prisons	87.38	0.3	47.97		106.40	0.2
(iv) Civil Defence	—	—	—		4.00	—
IV. ADMINISTRATION	862.42	2.8	465.32		805.31	2.1
(a) GENERAL SERVICES	808.28	2.6	437.15		725.31	1.9
(i) Buildings (P.W.D.)	340.48	1.1	167.75		252.17	0.7
(ii) Road Transport Department	14.58	—	7.83		44.20	0.1
(iii) Justice Department	44.76	0.1	16.33		59.48	0.2
(iv) Fire Services Department	34.70	0.1	23.80		66.30	0.2
(v) Customs Department	107.14	0.4	72.31		127.69	0.3
(vi) Computer for National Operations Room	22.56	0.1	13.18		10.00	—
(vii) Department of Environment	30.16	0.1	9.40		37.00	0.1
(viii) Other Programmes	213.90	0.7	126.55		128.47	0.3
(b) MINISTRY OF FOREIGN AFFAIRS	54.14	0.2	28.17		80.00	0.2
TOTAL FEDERAL FUNDS	31,147.01	100.0 (84.8)	21,201.90		39,329.50	100.0 (91.8)
STATE FUNDS	2,400.00	(6.5)	2,093.42		1,380.00	(3.2)
STATUTORY FUNDS	3,175.00	(8.7)	1,641.83		2,120.00	(5.0)
GRAND TOTAL	36,722.01	(100.0)	24,937.15		42,829.50	(100.0)

for telecommunications amounting to \$1,399 million will help meet the targets to install 1,200,000 telephones and to provide telex services for 15,000 subscribers by the end of the Plan period. In addition, the programme will also provide for an expansion of the international subscriber dialling facilities. The public utilities programmes, including energy and water supply, are provided with an allocation of \$3,249 million to meet domestic and industrial consumption.

582. The social sector is provided with \$6,388 million or 16.2% of the Federal allocation. The amount provided for education and training is \$2,993 million to meet the costs of new classrooms at the primary and secondary levels, new vocational and technical institutes, expanding higher education and increasing the number of scholarships and loans. The public housing programme is allocated a sum of \$1,000 million to provide adequate shelter and construct more low-cost housing units for the lower income groups. The health programme, with an allocation of \$588 million, will accord priority to population groups living in depressed areas, as well as areas unserved or underserved by essential health and medical services.

583. Under the FMP, the major objective of general administration is to improve the quality of services to the public as well as the working conditions of public sector employees. The major project include the construction of office complexes in the Federal Territory and in major towns throughout the country. An amount of \$805 million is provided for this programme.

584. The allocation for security is \$9,372 million or 23.8% of the Federal allocation, substantially higher than the allocation under the Third Malaysia Plan (TMP). The programme is mainly for the build-up of the nation's defence capability and improving the capacity of the police to maintain law and order in the country.

Allocation for NEP programmes and projects

585. Table 13-2 shows the allocations directed towards eradication of poverty and restructuring of society during the FMP. The programmes for eradication of poverty are those aimed at increasing the incomes and improving the quality of life of the poor. Examples of such programmes are input subsidies for farmers, land development, extension services and rural roads. The allocation for poverty eradication programmes amounts to \$9,319 million.

586. The programmes for restructuring of society are those aimed at correcting racial imbalances in the distribution of income, employment and wealth such as restructuring the ownership of the corporate sector, employment in the various sectors of the economy and real property such as commercial buildings, plantations and houses. The allocation for restructuring of society is \$4,398 million.

TABLE 13-2

MALAYSIA: ALLOCATIONS DIRECTED TOWARDS ERADICATION OF POVERTY
AND RESTRUCTURING OF SOCIETY UNDER THE FMP (1981-85)¹

(\$ million)

Sector	Poverty	%	Restructuring	%	Overlapping ²	%	Total	%
Agricultural and rural development	6,245.5	15.9	250.1	0.6	218.3	0.6	6,713.9	17.1
Commerce and industry	274.7	0.7	3,455.0	8.8	—	—	3,729.7	9.5
Social	1,157.9	2.9	692.5	1.8	82.2	0.2	1,932.6	4.9
Infrastructure	1,641.1	4.2	—	—	—	—	1,641.1	4.2
Total	9,319.2	23.7	4,397.6	11.2	300.5	0.8	14,017.3	35.7

¹ Based on the Federal allocation of \$39,330 million for the FMP.² Programmes and projects contributing to both poverty eradication and restructuring of society.

587. There are programmes which contribute to both objectives. An example of such a programme is land scheme on estate basis implemented by regional development authorities. Such a scheme provides income to the poor by way of employment, and corrects imbalances in ownership of large-scale land holdings. The allocation falling under this category amounts up to \$301 million.

Allocations by state

588. Table 13-3 shows the optimal targets, target value and allocation of the public sector development programme by state. These target values are based on a number of factors such as *per capita* state Gross Domestic Product (GDP), human and natural resources potential and past growth rates. The allocations differ from the target values. For states like Perlis, Selangor, Pahang, Trengganu, Kelantan and Sabah, and the Federal Territory, the differences are substantial. Among the factors which contribute to these differences are the existence of the TMP continuation projects and other large projects in the states concerned, whose beneficiaries are nationwide. Appendix A shows the allocation by sector and state.

TABLE 13-3

MALAYSIA: PUBLIC DEVELOPMENT ALLOCATION BY STATE, 1981-85

State	Optional target (%)	Target value (\$ million)	Allocation (\$ million)
Johor	11.60	3,656.83	2,929.18
Kedah	8.11	2,556.63	2,388.68
Kelantan	6.88	2,168.88	2,847.75
Melaka	3.62	1,141.19	939.76
Negri Sembilan	5.44	1,714.93	1,131.19
Pahang	7.10	2,238.23	2,944.00
Perlis	0.91	286.87	304.16
Perak	10.66	3,360.51	2,834.04
Pulau Pinang	4.82	1,519.48	1,236.02
Sabah	9.90	3,120.92	3,172.35
Sarawak	10.90	3,436.16	2,608.15
Selangor	8.19	2,581.85	3,676.76
Trengganu	4.51	1,421.75	2,023.11
Federal Territory	7.36	2,320.20	2,489.28
Multi-State	—	11,305.07	11,305.07
TOTAL	100.00	42,829.50	42,829.50

Allocations for multi-state projects

589. Those projects whose beneficiaries are nation-wide and whose locations cannot be determined are classified as multi-state projects. These include items such as equipment, scholarships, loans and investment funds. The allocation for multi-state projects under the FMP amount to \$11,305 million or 26.4% of total Plan allocation.

III. FINANCING OF PUBLIC SECTOR PROGRAMME

590. During the FMP, the Government will continue its efforts to ensure that current expenditures are adequately funded to meet the expansion in Government operations as well as to mobilise domestic and external resources to finance the public development expenditure. The financial policy aimed at mobilising resources will be undertaken without creating inflationary pressures in the economy. This is possible in view of the anticipated investible resources that will be generated by the projected expansion of the economy.

Sources of revenue

591. The major sources of revenue of the Federal and state governments are shown in Table 13-4. The revenue of the Federal Government is estimated to increase from \$12,870 million in 1980 to \$24,298 million in 1985, reflecting an average growth rate of 13.6% per annum while that of the state governments is expected to increase from \$2,178 million in 1980 to \$3,500 million in 1985, showing an average annual growth of 10%. Government current revenue, taken as a whole, is expected to grow at a rate of 13.1% per annum for the FMP period, giving an estimated total amount of \$113,036 million. Federal Government revenue is estimated to account for 87.2% of this total and the remainder from the state governments' own sources.

592. Direct taxes account for about 45.9% of the total Federal Government revenue, indirect taxes 49.3% and non-tax revenue 4.8%. Receipts from direct taxes are estimated to grow at an average rate of 15.8% per annum during the Plan period. Major components of direct taxes include taxes on income from individuals, companies and petroleum and these together account for almost 95% of total direct taxes. The increase in income tax receipts is explained by the increase in the number of tax payers, number of companies paying profit tax and the growth of petroleum income tax payments.

593. Revenue from indirect taxes is expected to increase from \$6,457 million in 1980 to \$11,927 million in 1985 reflecting an average growth rate of 13.1% per annum during the period. Cumulatively, indirect taxes are estimated to amount to \$48,622 million during the FMP period compared with \$24,208 million received during the TMP. The growth in indirect taxes is explained by the increase in collections, particularly from traditional sources such as export and import duties and surtax. Export duties are expected to increase due to higher prices for rubber and tin, and to the

introduction of the petroleum export tax in 1980. Export duties from these commodities are expected to grow at an average annual rate of 13.2% during 1981-85, accounting for about 39% of total indirect taxes. Import duties are expected to grow at an average annual rate of 9.7% during the period, contributing about 23% to total indirect taxes. The increase in receipts of import duties is due to higher prices of import commodities and higher taxes imposed on certain imported commodities to encourage import substitution industries. The growth of both export and import duties and other domestic indirect taxes also reflects an increase in the volume of domestic and foreign trade and rapid growth of domestic production.

TABLE 13-4

MALAYSIA: REVENUE OF THE FEDERAL AND STATE
GOVERNMENTS, 1981-85
(\$ million)

	1980	1985	Cumulative 1981-85	Average annual growth rate (%) 1981-85
<i>Direct taxes</i>	5,466	11,371	45,195	15.8
(i) Income taxes	5,121	10,896	42,908	16.3
— Individuals	1,250	2,971	10,684	18.9
— Companies	2,276	5,517	20,464	19.4
— Petroleum	1,595	2,408	11,760	8.6
(ii) Petroleum royalties/cash pay- ments	295	425	2,034	7.6
(iii) Others	50	50	253	—
<i>Indirect taxes</i>	6,457	11,927	48,622	13.1
(i) Export duties	2,420	4,492	18,990	13.2
— Rubber	1,035	2,096	8,269	15.2
— Palm oil	232	317	1,422	6.4
— Tin	470	738	2,903	9.4
— Petroleum	650	1,291	6,169	14.7
— Others	33	50	227	8.7
(ii) Import duties and surtax	1,686	2,678	11,336	9.7
(iii) Excise duty	994	2,332	8,667	18.6
(iv) Sales tax	647	1,321	5,019	15.4
(v) Road tax	378	625	2,615	10.6
(vi) Others	332	479	1,995	7.6
<i>Non-tax revenue</i>	947	1,000	4,720	1.1
Total Federal Government revenue	12,870	24,298	98,537	13.6
State governments revenue	2,178	3,500	14,499	10.0
Total Federal and state governments revenue	15,048	27,796	113,036	13.1

Uses of funds

594. As shown in Table 13-5, current expenditure of Federal and state governments is estimated to amount to \$102,118 million during the period 1981-85, with 87.6% representing Federal current expenditure and the rest state expenditure. The amount of current expenditure estimated for both Federal and state governments will be double the amount spent during the TMP. In terms of growth rate, current expenditure during the FMP will increase at an average rate of 14% per annum. A major portion of the current expenditure is attributable to the payment of salary and wages, expansion of personnel and large provisions for transfer payments.

595. Federal and state governments current surplus is expected to amount to \$10,918 million compared with \$5,983 million during the TMP. The surplus of state governments is accounted for by Sabah and Trengganu whose revenue receipts from timber and petroleum respectively, put them in a strong financial position compared with the other states. Public authorities are expected to have a surplus of \$33 million during the Plan period.

TABLE 13-5

MALAYSIA: CONSOLIDATED PUBLIC SECTOR EXPENDITURE AND FINANCING, 1976-85

(\$ million)

	Cumulative	
	1976-80	1981-85
Government revenue	54,706	113,036
—Government current expenditure	48,723	102,118
=Current surplus	5,983	10,918
+Public authorities current surplus	1,853	33
=Public sector current surplus	7,836	10,951
—Public sector development expenditure	24,937	32,829.5
=Overall deficit	17,101	21,878.5
<i>Sources of financing</i>		
Net foreign borrowing	3,907	4,000
Net domestic borrowing	9,610	15,500
Use of accumulated assets and special receipts	3,584	2,378.5

596. Taken as a whole, the current surplus of the Federal and state governments and public authorities amounts to \$10,951 million for the 1981-85 period which is more than one-third of the current surplus during the TMP. As development expenditure is targetted at \$32,829.5 million, the overall deficit is estimated to be \$21,878.5 million.

Sources of financing

597. The deficit of \$21,878.5 million is to be financed through domestic and foreign borrowings. Domestic borrowing in the form of Government securities and Treasury bills is projected at about \$15,500 million or 70.8% of the financing requirements during the FMP. As in the TMP, Employees Provident Fund (EPF) will continue to be the main subscriber to Government Securities and Treasury Bills accounting for about 58% of the domestic resources to be mobilised while the remainder will be financed by other financial institutions which includes the National Savings Bank, insurance companies, discount houses, merchant banks, finance companies, Social Security Organization (SOCSO) and public authorities.

598. The amount of net external borrowing, both market and project loans is estimated to be \$4,000 million or 18.3% of the financing needs compared with \$3,907 million or 22.8% obtained during the TMP. The balance of financing requirements of \$2,378.5 million will be met from the use of accumulated assets and special receipts. The bulk of the foreign borrowing will come from institutional sources such as World Bank, Asian Development Bank and Islamic Development Bank. Although Malaysia continues to enjoy a high credit standing among the international financial community, the amount of market borrowing will be determined as the need arises so as to take advantage of favourable market conditions.

599. The amount of external borrowing targetted will lead to an average external debt service ratio of 2.4% during the FMP which is relatively low compared with other developing countries. The diversity of the export structure, the growth of the economy and the level of international reserves coupled with the low level of debt service ratio will enable Malaysia to continue to maintain its high credit standing.

Peranan Sektor Swasta

I. PENDAHULUAN

600. Sektor swasta mempunyai peranan yang penting dalam pencapaian matlamat pertumbuhan di bawah Rancangan Malaysia Keempat (RME) dan dalam pencapaian matlamat-matlamat Dasar Ekonomi Baru (DEB). Kira-kira 72.2% dari jumlah pelaburan yang ditentukan bagi RME dijangka berpunca dari sektor swasta. Matlamat pelaburan ini memerlukan satu usaha yang lebih gigih oleh sektor swasta untuk mengumpul dan menggerakkan sumber-sumber pelaburan dan untuk mendapatkan kemahiran, pengetahuan teknikal dan kepakaran pengurusan. Kerajaan akan terus mengekalkan iklim pelaburan yang baik sesuai untuk pertumbuhan sektor swasta dan menyediakan sokongan yang diperlukan dari segi infrastruktur dan kemudahan-kemudahan lain.

II. PROSPEK BAGI PELABURAN SWASTA

601. Jumlah pelaburan swasta, termasuk pelaburan dalam industri minyak dalam tempoh RME dijangka sebanyak \$74,111 juta atau 72.2% dari jumlah pelaburan berbanding dengan \$30,630 juta atau 63.2% dari jumlah pelaburan dalam tempoh Rancangan Malaysia Ketiga (RMT). Dari segi pertumbuhan, jumlah pelaburan swasta dijangka meningkat pada kadar 13.1% setahun dalam harga semasa atau 8.0% setahun dari segi sebenar.

602. Sebahagian besar dari pelaburan swasta akan terdapat dalam sektor bukan-minyak yang dianggar meningkat sebanyak 11% setahun dari segi sebenar dalam tempoh RME, sedikit lebih tinggi dari kadar 10.8% yang dicapai dalam tempoh RMT. Bahagian pelaburan swasta bukan-minyak akan meningkat dari 54.5% kepada 88.6% dari jumlah pelaburan dan bidang-bidang utama pelaburan bukan-minyak adalah dalam sektor-sektor pembuatan dan pembinaan.

603. Nilai ditambah bagi sektor pembuatan dijangka meningkat pada kadar yang tinggi sebanyak 11% setahun. Seperti di masa-masa yang lalu, punca pertumbuhan bagi sektor pembuatan ialah permintaan dari pasaran

luar dan dalam negeri. Industri-industri untuk eksport seperti elektronik, keluaran-keluaran getah dan keluaran-keluaran berasaskan kayu balak akan terus menikmati permintaan luar negeri yang bertambah dengan pertumbuhan nilai ditambah bagi industri-industri ini ialah di antara 8% hingga 15% setahun, seperti yang ditunjukkan dalam Jadual 14-1. Industri-industri yang mempunyai prospek eksport yang baik seperti pembuatan alat-alat jitu, permainan kanak-kanak dan alat-alat sukan, keluaran berasaskan tanah liat dan silika akan juga menyumbangkan kepada pertumbuhan pelaburan swasta.

604. Walaupun negara mempunyai faedah bandingan yang baik dalam industri-industri yang berasaskan sumber asli seperti keluaran getah dan kayu, tetapi peluang-peluang bagi perkembangan selanjutnya bagi industri-industri ini masih belum digunakan dengan sepenuhnya. Rantaian-rantaian hadapan industri-industri perusahaan berasaskan sumber seperti pembuatan perabot dan perkakas rumah, tayar dan tiub, dan kasut, masih boleh dimajukan lagi untuk memenuhi permintaan pasaran-pasaran dalam dan luar negeri. Begitu juga, usaha memproses keluaran pertanian boleh dimajukan seterusnya untuk meningkatkan lagi nilai ditambah bagi ekonomi negara.

JADUAL 14-1

MALAYSIA: PERKEMBANGAN INDUSTRI-INDUSTRI
PEMBUATAN, 1981-85

							<i>Kadar pertumbuhan purata tahunan % 1981-85</i>
Keluaran makanan	..	..	..	..	..	..	8.1
Minuman dan tembakau	..	..	..	..	..	..	6.0
Kain	..	..	..	..	..	..	8.0
Keluaran berasaskan kayu	..	..	..	..	..	..	8.0
Kertas dan percetakan	..	..	..	..	..	..	14.0
Badan perindustrian kimia	..	..	..	..	..	..	10.0
Keluaran kimia dan plastik	..	..	..	..	..	..	10.0
Keluaran getah	..	..	..	..	..	..	12.0
Keluaran petrolium	..	..	..	..	..	..	15.0
Simen	..	..	..	..	..	..	13.0
Keluaran galian bukan-logam yang lain	..	..	..	..	..	..	5.0
Jentera elektrik	..	..	..	..	..	..	15.0
Alat-alat pengangkutan	..	..	..	..	..	..	7.0
Barang-barang pembuatan lain	..	..	..	..	..	..	20.0

605. Sehingga ini, industri elektronik ditumpukan kepada pemasangan komponen yang diimport dan pertumbuhannya yang pesat telah memberi faedah yang besar kepada negara dari segi mewujudkan peluang-peluang pekerjaan. Memandangkan keadaan kekurangan tenaga buruh, industri ini akan digalak untuk menyatukan berbagai proses pengeluaran yang akan meningkatkan lagi nilai ditambah.

606. Permintaan dalam negeri yang dijangka menyumbangkan sebanyak 58% dari KDNK dalam ekonomi dalam tempoh RME akan juga memberi dorongan kepada pelaburan swasta. Dalam tempoh sepuluh tahun yang lalu, pendapatan per kapita telah meningkat sebanyak 4.9% dari segi sebenar, dan selaras dengan pertambahan pendapatan ini ialah peningkatan permintaan bagi barangan pengguna tahan lama dan barang-barang lain seperti peralatan rekreasi, pakaian, kasut, perabot dan buku. Selanjutnya, dengan pertumbuhan pendapatan per kapita yang dijangka sebanyak 5% setahun dalam tempoh RME, peluang bagi gantian import barangan pengguna ini akan bertambah disebabkan oleh permintaan bagi barang-barang ini akan meningkat pada kadar yang lebih tinggi dari pertambahan pendapatan.

607. Peluang yang luas juga boleh didapati dalam pembuatan alat-alat sampingan oleh industri-industri kejuruteraan untuk menghasilkan nilai ditambah dalam negeri melalui penggunaan komponen-komponen tempatan dan untuk memaju dan memperbaiki tingkat teknologi. Perkembangan industri-industri ini akan memajukan lagi rantai kebelakang dalam pembangunan perindustrian.

608. Kerajaan juga akan menggalakkan penubuhan industri-industri berat untuk mengukuhkan pembangunan perindustrian negara. Bagi membantu perkembangan industri-industri berat ini, Perbadanan Industri Berat Malaysia Berhad telah ditubuhkan dalam tahun 1980 untuk memula, melaksana dan menguruskan industri-industri yang menggunakan modal yang banyak. Perbadanan ini dimiliki sepenuhnya oleh Kerajaan tetapi ianya ditubuhkan di bawah Akta Syarikat supaya ianya mempunyai kebebasan bergerak seperti sektor swasta untuk bertindak mengikut perubahan dalam keadaan ekonomi. Perbadanan ini juga akan melaksanakan projek-projek secara usahasama dengan sektor swasta. Beberapa projek industri berat telah ditentukan bagi pertimbangan seterusnya oleh Kerajaan. Projek-projek ini termasuk kilang-kilang besi dan besiwaja, aluminium dan simen serta kompleks perkhidmatan sokongan kejuruteraan. Perlaksanaan projek-projek ini akan memberi peluang seterusnya kepada sektor swasta untuk menyertai dalam pembangunan perindustrian.

609. Bagi menggalakkan pelaburan dalam projek yang mempunyai tempoh penyiapan yang panjang dalam semua sektor ekonomi, Bank Pembangunan Perindustrian Malaysia Berhad telah ditubuhkan dalam tahun 1979. Matlamat bank ini ialah untuk membiayai perkembangan keupayaan

pengeluaran bagi industri-industri yang menggunakan modal yang banyak dan teknologi yang tinggi. Salah satu dari sektor yang diutamakan ialah industri perkapalan. Skim bantuan kewangan bank ini untuk industri perkapalan termasuklah pembiayaan semula belanja memperbaiki pada kadar yang istimewa sebanyak 4.5% setahun bagi tempoh maksima selama setahun untuk membolehkan limbungan kapal Malaysia bersaing dengan lebih berkesan dalam pasaran antarabangsa. Di samping itu, bank ini juga sedang menyiapkan skim kewangan untuk menggalakkan pemilik-pemilik kapal Malaysia dan asing membina kapal-kapal mereka di limbungan kapal Malaysia.

610. Pelaburan dalam industri-industri kecil akan juga digalakkan oleh kerana industri-industri ini mempunyai peranan yang penting dalam membentuk kemahiran usahawan, dan juga menyediakan peluang-peluang pekerjaan serta asas bagi melatih dan meningkatkan kemahiran. Industri-industri kecil yang sesuai untuk dimajukan termasuklah pengeluaran alat-alat jentera perindustrian, perabot, kasut kulit, perkakas mesin, biskut dan gula-gula serta pakaian. Kerajaan akan terus menggalakkan pertumbuhan industri-industri kecil ini dengan memberi latihan yang lebih, kredit dan kemudahan kewangan serta memperbaiki kemudahan pemasaran. Untuk meningkatkan lagi keupayaan industri-industri ini, ianya akan digalakkan mengeluarkan barang-barang sampingan yang bersesuaian dengan permintaan sektor industri-industri yang semakin bertambah. Dalam hubungan ini satu unit khas telah ditubuhkan di bawah Kementerian Perdagangan dan Perindustrian untuk memoden dan menyusun semula industri-industri kecil ini.

611. Prospek bagi pelaburan dalam industri pembinaan dan bangunan adalah cerah. Sektor pembinaan adalah dijangka berkembang dengan pesatnya dalam tempoh RME, dengan bertambahnya permintaan bagi bangunan tempat kediaman dan juga bangunan-bangunan bukan tempat kediaman. Dalam tempoh RME, sektor bangunan tempat kediaman akan dipergiatkan lagi dengan pembinaan sebanyak 923,300 unit rumah yang dirancang dan kira-kira 56.8% dari bilangan ini dijangka akan diusahakan oleh sektor swasta. Di samping itu, perkembangan kemudahan-kemudahan infrastruktur dan projek-projek sektor sosial seperti pelajaran dan kesihatan akan menghasilkan permintaan tambahan bagi pelaburan dalam sektor swasta. Salah satu dari masalah-masalah utama yang diberi perhatian berat oleh Kerajaan ialah kenaikan kos bahan-bahan binaan dan kekurangan buruh mahir. Usaha-usaha akan diambil untuk menambah penawaran bahan-bahan binaan melalui perkembangan dalam keupayaan pengeluaran dalam negeri dan import bahan-bahan tersebut, dan menambah penawaran buruh dengan menyediakan kemudahan-kemudahan latihan tambahan.

612. Jumlah pelaburan yang diperlukan bagi memajukan sumber-sumber minyak dan gas asli adalah besar. Di samping jumlah pelaburan yang diperuntukkan sebanyak \$4,036 juta yang dibelanjakan dalam tempoh RMT, kira-kira \$7,900 juta akan dilaburkan dalam tempoh RME untuk memajukan telaga-telaga minyak dan untuk menyiapkan projek-projek berkaitan dengan pembangunan sumber-sumber gas asli di Bintulu, Labuan dan Trengganu. Selain dari itu, jumlah yang besar akan dilabur untuk meningkatkan keupayaan menapis minyak tempatan dengan pembinaan kilang-kilang penapis di Melaka dan Trengganu.

613. Pertumbuhan dalam sektor pertanian, pembuatan, pembinaan dan perlombongan akan mendorong pelaburan dalam sektor perkhidmatan, terutamanya perdagangan borong dan runcit, bank dan perkhidmatan kewangan. Kadar pertumbuhan pelaburan dalam sektor perkhidmatan ini adalah selaras dengan kadar pertumbuhan nilai ditambah sebanyak 7.8% setahun bagi sektor-sektor perkhidmatan bukan Kerajaan. Industri-industri perkapalan dan insuran juga akan berkembang berikutan dengan pelaksanaan dasar Kerajaan untuk memperbaiki kedudukan kurangan dalam perdagangan perkhidmatan.

III. PEMBIAYAAN PELABURAN SWASTA

614. Sumber-sumber yang diperlukan bagi membiayai pelaburan swasta sebanyak \$74,111 juta (termasuk perubahan stok) dalam tempoh RME adalah satu jumlah yang besar. Sumber-sumber dalam negeri yang meliputi pembiayaan sendiri oleh sektor swasta dan pindahan wang Kerajaan kepada sektor swasta adalah dianggarkan menampung kira-kira 87% dari jumlah yang diperlukan untuk membiayai pelaburan swasta. Bakinya akan dibiayai oleh aliran-masuk modal jangka panjang berjumlah \$9,405 juta bagi tempoh RME berbanding dengan \$6,911 juta dalam tempoh RMT. Aliran-masuk modal jangka panjang swasta ini menunjukkan bahawa pelaburan asing akan terus memberi sumbangan kepada pembangunan ekonomi Malaysia.

615. Pembiayaan sendiri pelaburan swasta akan berjumlah sebanyak \$52,585 juta yang terdiri dari tabungan terkumpul dimasa lalu dan tabungan baru yang akan dihasilkan dalam tempoh RME setelah mengambil kira pembelian surat-surat jaminan Kerajaan, aliran-keluar modal jangka pendek dan kekurangan dan kesilapan imbalan pembayaran serta pertambahan dalam pegangan matawang. Punca pembiayaan tambahan untuk sektor swasta ialah peruntukan Kerajaan bagi agensi-agensi sektor awam yang bergiat dalam sektor swasta. Peruntukan-peruntukan ini termasuk pindahan kepada institusi-institusi seperti Perbadanan Nasional Berhad (PERNAS), Perbadanan Pembangunan Bandar (UDA), Perbadanan Kemajuan Ekonomi Negeri (PKEN), Majlis Amanah Rakyat (MARA) dan Tabung Pelaburan Bumiputera bagi tujuan memajukan Bumiputera dalam perdagangan dan perindustrian. Jumlah peruntukan bagi tujuan ini ialah sebanyak \$5,444 juta bagi tempoh RME.

MALAYSIA: ANGGARAN PELABURAN DAN PEMBIAYAANNYA, 1981-85

(\$ juta)

	<i>Jumlah Terkumpul 1981-85</i>
Pelaburan swasta (termasuk stok)	74,111
—Aliran-masuk modal swasta jangka panjang (bersih) ...	9,405
=Keperluan pembiayaan dalam negeri	64,706
Pembiayaan dalam negeri untuk pelaburan swasta:	
Tabungan swasta sebelum pindahan ¹	78,992
—Pindahan bersih	607
=Tabungan swasta selepas pindahan	78,385
—Pembelian Surat-surat Jaminan Kerajaan	15,500
=Aliran-keluar sektor swasta dan kesilapan dan ke- tinggalan imbalan bayaran	10,500
—Tambahan matawang yang dipegang dan simpanan sektor swasta di Bank Negara Malaysia	
=Pembiayaan sendiri sektor swasta	52,585
+Pembiayaan pelaburan dalam sektor swasta oleh sektor awam dan pindahan-pindahan lain ²	12,121
=Jumlah pembiayaan dalam negeri	64,706
+Aliran-masuk modal swasta jangka panjang (bersih) ...	9,405
=Jumlah pelaburan swasta	74,111

¹ Termasuk tabungan terkumpul.

² Ini termasuk pindahan-pindahan dari peruntukan perbelanjaan pembangunan agensi-agensi Kerajaan yang bergiat di sektor swasta, pindahan awam kepada isirumah, dan kegiatan-kegiatan yang dibiayai sendiri oleh agensi-agensi sektor awam.

616. Pembiayaan pelaburan dijangka merupakan satu cabaran kepada keupayaan sektor swasta untuk mengumpul dan mengguna sumber-sumber bagi pelaburan. Untuk membiayai program-program pelaburan awam dalam tempoh RME, Kerajaan akan terus memastikan supaya sektor swasta mempunyai sumber-sumber yang cukup untuk keperluan pelaburan.

IV. DAYAUSAHA SEKTOR SWASTA DALAM BIDANG-BIDANG UTAMA

617. Kerajaan akan memberi perhatian yang berat terhadap kesan inflasi antarabangsa dan kenaikan kos tenaga yang mungkin mempengaruhi keadaan ekonomi dalam negeri dan kesediaan sektor swasta untuk melabur. Dasar Kerajaan ialah untuk membendung keadaan inflasi dalam negeri antara kadar 6% hingga 7% setahun. Di samping itu, Kerajaan akan terus

mengambil langkah-langkah perlu melalui dasar fiskal dan kewangan serta langkah-langkah pentadbiran bagi mengawal kenaikan harga. Peranan sektor swasta adalah juga penting dalam membantu usaha-usaha Kerajaan melalui usaha menambah pengeluaran untuk memenuhi permintaan, memperbaiki kecekapan, menjimat tenaga, melatih dan meningkatkan kemahiran. Kerajaan akan terus menggalakkan persaingan di kalangan industri dengan tujuan untuk meningkatkan kecekapan dalam pengeluaran.

618. Sumbangan sektor swasta untuk mencapai tingkat eksport yang dianggarkan dan pertumbuhan dalam pelaburan akan terus penting bagi pencapaian matlamat pertumbuhan ekonomi keseluruhannya. Dalam tempoh RME, eksport barangan dan perkhidmatan dianggarkan meningkat sebanyak 9.7% dari segi sebenar atau 17.4% setahun mengikut harga semasa. Eksport barang-barang pembuatan dianggar akan berkembang kira-kira 24.2% setahun mengikut harga semasa dan perkembangan yang pesat bagi eksport barangan pembuatan ini adalah penting untuk menghasilkan permintaan bagi pelaburan, serta menambahkan pendapatan dan peluang-peluang pekerjaan. Kerajaan akan terus memberi keutamaan kepada eksport barangan pembuatan, terutamanya barangan yang dikeluarkan oleh industri-industri berasaskan sumber dan menyediakan galakan-galakan yang perlu serta kemudahan-kemudahan kredit kewangan. Keupayaan untuk mendapatkan pasaran baru dan meluaskan pasaran yang ada, walau bagaimanapun, adalah bergantung sebahagian besarnya kepada sektor swasta. Usaha-usaha yang berterusan akan juga diambil untuk memperbaiki keupayaan persaingan barang-barang keluaran melalui penyelidikan dan pembangunan dengan tujuan untuk memperbaiki mutu, kaedah-kaedah pembungkusan dan pemasaran dan untuk menyertai secara meluas dalam usaha menggalakkan keluaran eksport. Dalam hubungan ini, syarikat-syarikat transnasional di Malaysia adalah penting bagi merancang jenis dan menggalakkan keluaran-keluaran eksport.

619. Usaha yang gigih untuk mengumpul dan mengguna sumber-sumber bagi mencapai matlamat pelaburan dalam tempoh RME adalah diperlukan. Sektor bank dan kewangan yang terdiri dari bank-bank perdagangan, bank-bank saudagar dan syarikat kewangan adalah dikehendaki untuk mengambil sikap mementingkan perkhidmatan dan pembangunan dalam kegiatannya supaya dapat memenuhi kehendak ekonomi yang berkembang dan juga untuk menyalurkan tabungan kepada pelaburan yang menguntungkan, terutamanya untuk mengumpul dan mengguna tabungan dan pembiayaan pelaburan di kawasan-kawasan luar bandar. Kerajaan akan terus mengutamakan pemberian pinjaman oleh sektor bank untuk tujuan-tujuan yang produktif serta kepada bidang-bidang pelaburan yang diberi keutamaan termasuk industri-industri kecil, rumah kediaman dan perniagaan Bumi-putera. Dalam tempoh RMT, sektor bank pada umumnya telah dapat memenuhi berbagai garis panduan ke atas pinjaman kepada bidang-bidang yang diberi keutamaan. Di samping sektor bank, peranan institusi-institusi yang dibiayai oleh Kerajaan seperti Permodalan Kemajuan Perusahaan

Malaysia Berhad (MIDF), Syarikat Jaminan Kredit (CGC) dan Bank Pembangunan Malaysia Bhd. (BPMB) akan diperluas untuk menyediakan kemudahan pembiayaan jangka sederhana dan panjang bagi projek-projek perindustrian dan untuk membantu industri-industri kecil di samping memberi khidmat nasihat dan perundingan.

620. Dalam tempoh RME, Kerajaan akan terus melaksanakan dengan giatnya dasar bagi menyediakan tempat kediaman yang cukup dengan keutamaan diberi kepada pembinaan rumah-rumah kos rendah bagi memenuhi kehendak perumahan golongan miskin. Di samping peranan penting yang akan terus dimainkan oleh sektor awam dalam pembinaan rumah-rumah ini, sektor swasta mempunyai peranan yang lebih penting dalam membantu usaha Kerajaan untuk menyediakan rumah-rumah kos rendah.

621. Satu masalah besar yang dihadapi oleh ekonomi yang berkembang pesat ialah kekurangan tenaga mahir yang berterusan, terutamanya di peringkat-peringkat kemahiran pertukangan tangan serta pengurusan ikhtisas. Ekonomi yang bertambah moden beserta dengan perubahan yang pesat dalam kemahiran memerlukan latihan oleh sektor swasta yang bersesuaian dengan jenis industri dan perusahaan tertentu. Penyediaan kemudahan latihan seumpama itu bukan sahaja dapat menambahkan tenaga kerja mahir tetapi juga menyumbangkan kepada penyusunan semula gunatenaga yang pesat di peringkat-peringkat ini. Di samping menambahkan kemudahan-kemudahan latihan, Kerajaan juga akan terus mengawasi permintaan bagi tenaga kerja mahir dengan tujuan memberi galakan kepada sektor swasta mengadakan program latihannya sendiri dalam bidang-bidang yang mengalami kekurangan terdesak tenaga kerja mahir. Satu langkah ke arah ini telah diambil melalui penyediaan galakan kepada industri pembinaan untuk mengadakan secara teratur program latihan di tempat kerja.

622. Satu aspek penting dalam latihan gunatenaga ialah untuk menghasilkan pengurus-pengurus yang cekap melalui latihan sambil kerja bagi kakitangan pengurusan dan penyeliaan. Kemudahan-kemudahan di Pusat Daya Pengeluaran Negara (PDPN) dan lain-lain program latihan pengurusan sektor awam akan diperluaskan, manakala program-program Instituit Pengurusan Malaysia (MIM) dan badan-badan ikhtisas lain serta industri-industri juga perlu diperluaskan lagi. Pembangunan dan peningkatan kemahiran akan memudahkan penyerapan teknologi yang sesuai dan meningkatkan daya pengeluaran. Sektor swasta juga perlu memperbaiki dan memodenkan amalan pengurusan kakitangannya untuk meningkatkan kecekapan dan daya pengeluaran.

V. SEKTOR SWASTA DAN DEB

623. Dalam tempoh RME, sektor swasta akan memainkan peranan yang lebih penting dalam mempercepatkan kemajuan kearah pencapaian matlamat DEB. Peranannya yang penting adalah jelas ditunjukkan oleh bahagian yang besar dari jumlah pelaburan, iaitu sebanyak 72.2% yang perlu dibuat oleh sektor swasta dalam tempoh 1981-85.

624. Proses menyusun semula hakmilik modal saham sektor syarikat dijangka menjadi lebih pesat dalam tempoh RME. Pertumbuhan sektor syarikat dari syarikat-syarikat yang sedia ada serta syarikat-syarikat baru kepunyaan rakyat Malaysia dan asing dijangka bertambah pesat apabila ekonomi mengalami proses perubahan struktur serta menjadi semakin moden dan maju. Perkembangan sektor pembuatan adalah penting dalam pencapaian matlamat penyusunan semula. Sektor ini dijangka menyumbangkan sebanyak 23.9% dari KDNK menjelang tahun 1985 berbanding dengan 20.5% dalam tahun 1980. Dengan terdapatnya peluang-peluang pelaburan baru, permintaan bagi sumber-sumber kewangan akan meningkat termasuk modal ekuiti dari rakyat Malaysia. Penyusunan semula hakmilik melalui perkembangan sektor syarikat akan terus menjadi asas bagi menambahkan lagi hakmilik rakyat Malaysia.

625. Garis-garis panduan bagi Peraturan mengenai Perolehan Milik Harta, Penyatuan dan Ambilalih yang dilaksanakan oleh Jawatankuasa Pelaburan Asing (FIC) akan terus mengawasi penyatuan-penyatuan, ambilalih dan perolehan untuk memastikan ianya dilakukan selaras dengan kepentingan negara. Banyak syarikat-syarikat dijangka berkembang melalui penyatuan, ambilalih dan perolehan dalam tempoh RME, dan oleh yang demikian, syarikat-syarikat ini dikehendaki menyusun semula corak hakmilik selaras dengan DEB. Syarikat-syarikat baru akan memberi matlamat penyusunan semula bagi memenuhi dasar-dasar hakmilik bagi sumbangan kepada pencapaian matlamat penyusunan semula. Bagi mematuhi dasar-dasar hakmilik berbagai sektor ekonomi, syarikat-syarikat ini akan mempelawa penyertaan equiti rakyat Malaysia pada masa penubuhan, dan dengan itu membolehkan rakyat Malaysia memiliki kepentingan di peringkat permulaan dalam syarikat-syarikat ini.

626. Penyusunan semula gunatenaga dalam tempoh RME akan terus dipercepatkan dengan proses perindustrian dan pemodenan ekonomi yang pesat. Adalah dijangka bahawa pertumbuhan gunatenaga terutamanya dalam sektor pembuatan dan perdagangan borong dan runcit, beserta dengan perkembangan dalam program pelajaran dan latihan akan membolehkan kadar penyusunan semula gunatenaga yang lebih pesat. Sektor pembuatan dijangka menyediakan kira-kira 267,000 pekerjaan-pekerjaan baru, manakala kira-kira 168,400 pekerjaan-pekerjaan tambahan akan disediakan oleh sektor perdagangan borong dan runcit. Usaha-usaha oleh sektor swasta untuk memperluas dan mempercepatkan program-program latihannya, perlu dipergiatkan lagi sekiranya penyusunan semula gunatenaga yang pesat dalam pekerjaan-pekerjaan yang memerlukan tenaga buruh yang lebih mahir ingin dicapai.

627. Galakan akan terus diberi kepada perusahaan-perusahaan swasta yang telah atau bercadang untuk menyusun semula corak hakmilik dan gunatenaga, buat permulaannya bagi tahun-tahun taksiran 1980, 1981 dan 1982. Pengecualian cukai sebanyak lima unit peratus dari jumlah cukai pendapatan syarikat sebanyak 40% akan diberi kepada mana-mana syarikat

yang memenuhi keperluan penyusunan semula ekuiti di bawah DEB, dengan sekurang-sekurangnya 70% hakmilik ekuiti rakyat Malaysia, termasuk sekurang-kurangnya 30% untuk Bumiputera, dan tidak lebih dari 30% hakmilik ekuiti untuk kepentingan-kepentingan asing. Bagi menggalakkan penyusunan semula dalam gunatenaga dan rangkaian pemasaran, pengecualian cukai pembangunan sebanyak lima unit peratus akan diberi kepada mana-mana syarikat atau perusahaan perniagaan yang telah menyusun semula gunatenaga bagi mencerminkan pembahagian penduduk mengikut kaum dalam semua peringkat pekerjaan sehingga peringkat pengurusan atau sekurang-kurangnya 30% dari jumlah jualan dalam pasaran tempatan diperuntukkan bagi pengedar-pengedar Bumiputera. Galakan-galakan ini dijangka mendorong sektor swasta untuk menyusun semula perniagaan-perniagaan mereka sebelum penghujung tempoh sepuluh tahun kedua DEB.

628. Kegiatan-kegiatan sektor swasta selanjutnya dijangka mengurangkan kadar kemiskinan dalam tempoh RME. Perusahaan-perusahaan swasta di kawasan bandar, terutamanya dalam sektor pembuatan dan perkhidmatan akan menyediakan peluang-peluang pekerjaan kepada golongan miskin di bandar. Keutamaan yang lebih akan diberi kepada perkembangan industri-industri berasaskan sumber. Oleh itu, adalah dijangka bahawa lebih banyak perusahaan swasta dalam sektor pembuatan akan ditubuhkan di kawasan-kawasan kurang maju dan pelaburan swasta dalam industri-industri berasaskan sumber akan seterusnya membantu penyediaan peluang-peluang pekerjaan untuk golongan miskin di luar bandar.

629. Matlamat-matlamat pembasmian kemiskinan dan penyusunan semula masyarakat di bawah DEB tidak akan dapat dicapai tanpa pertumbuhan dan kerjasama sepenuhnya dari sektor swasta, baik tempatan mahupun asing. Demi kepentingan pembangunan dan perpaduan negara, Kerajaan mempunyai keyakinan bahawa sektor swasta akan bertindak secara positif bagi mencapai matlamat-matlamat DEB.

VI. DASAR-DASAR DAN LANGKAH-LANGKAH

630. Seperti di masa-masa yang lampau, Kerajaan akan mengkaji semula dari masa kesemasa dasar dan program bersama dengan sektor swasta dengan tujuan menggalakkan pertumbuhan pelaburan swasta yang lebih pesat dan menentukan bahawa sektor swasta memainkan peranan yang lebih berkesan dalam pembangunan negara, terutamanya dalam pencapaian matlamat DEB.

631. Dasar-dasar fiskal dan kewangan akan terus menjadi alat yang utama bagi menggalakkan perkembangan sektor swasta. Memandangkan perubahan dinamik yang berlaku dari segi corak pembangunan perindustrian, Kerajaan akan memperkemaskan sistem galakan dan tarif selaras dengan keutamaan-keutamaan yang diberi kepada pembangunan perindustrian dalam tempoh sepuluh tahun yang akan datang. Untuk menjayakan usaha

ini, Kerajaan akan mengambil kira kesan galakan yang ada sekarang ke atas pembangunan perindustrian dan keperluan untuk mengukuhkan rantai hadapan dan kebelakang perkembangan perindustrian keatas ekonomi melalui penubuhan industri-industri yang berasaskan sumber tempatan untuk eksport dan penggunaan dalam negeri serta kemajuan industri-industri kecil.

632. Kerajaan memberi perhatian utama kepada masalah corak struktur yang tidak seimbang dari segi permintaan dan penawaran buruh yang menyebabkan kekurangan buruh bagi industri-industri dan kawasan-kawasan tertentu. Pada keseluruhannya kadar perkembangan peluang-peluang pekerjaan yang pesat pada kadar 4.1% setahun dalam tempoh sepuluh tahun yang lalu telah menyebabkan kadar pengangguran berkurangan dari 7.8% dalam tahun 1970 kepada 5.3% dalam tahun 1980, dan oleh yang demikian telah menyebabkan keadaan pasaran buruh yang ketat. Walaupun perkembangan ini merupakan kemajuan yang menggalakkan dalam penyediaan peluang-peluang pekerjaan, kekurangan yang berterusan dalam kemahiran-kemahiran tertentu mungkin menghalang perkembangan sektor swasta. Kerajaan akan mengawasi perkembangan dalam pasaran buruh, terutamanya dari segi maklumat berkaitan dengan kekurangan buruh mahir, upah, kadar pusingan pengambilan buruh dan pembahagian permintaan dan penawaran buruh mengikut kawasan, supaya dapat mengambil langkah-langkah yang perlu bagi menyelaraskan permintaan dan penawaran buruh. Dalam hubungan ini, adalah mustahak bagi sektor swasta membuat penyesuaian kepada perubahan-perubahan yang berlaku dalam kedudukan penawaran buruh melalui peningkatan kecekapan penggunaan buruh, latihan tenaga manusia, peningkatan kemahiran dan usaha meninggikan upah serta memperbaiki keadaan bekerja.

633. Keadaan perhubungan perindustrian yang harmoni antara majikan dan pekerja perlu dikekalkan untuk mencapai pertumbuhan perindustrian yang berterusan. Untuk memperbaiki kecekapan dan kekesan sistem perhubungan perindustrian, Kerajaan telah meminda Akta Perhubungan Perindustrian, 1967, dan Ordinan Pekerjaan, 1955. Akta Perhubungan Perindustrian telah dipinda untuk mengukuhkan jentera pendamaian dan timbangtara supaya isu-isu dan masalah-masalah yang timbul dari perundingan bersama antara majikan dan pekerja dapat diselesaikan dengan cepat, adil dan cekap. Pindaan kepada Ordinan Pekerjaan memperuntukkan faedah yang bertambah kepada pekerja-pekerja dan menghalang tindakan sewenang-sewenang oleh pekerja-pekerja yang menjejaskan pengeluaran.

634. Sektor syarikat menyumbangkan sebahagian besar dari kegiatan sektor swasta dan dijangka peranannya akan menjadi lebih penting dalam tempoh RME. Memandangkan peranannya yang penting ini, Kerajaan telah mengemukakan pindaan-pindaan kepada Akta Syarikat, 1965 yang bertujuan untuk mengekalkan keadaan sektor syarikat yang sihat dan teratur. Memandangkan kegiatan dan amalan sektor syarikat yang semakin

maju, dan penyertaan orang ramai dalam hakmilik syarikat yang semakin bertambah, adalah perlu supaya Akta Syarikat diperkukuh dan diperkemas lagi. Satu peraturan perundangan mengenai Ambilalih dan Penyatuan akan dikemukakan untuk mengawal ambilalih dan penyatuan di sektor syarikat dan untuk melindungi kepentingan yang sah pemilik-pemilik saham syarikat-syarikat yang terlibat dalam ambilalih dan penyatuan. Satu panel yang bertanggungjawab untuk melaksanakan Perundangan ini akan ditubuhkan oleh Kerajaan dalam tahun 1981.

VII. KESIMPULAN

635. Kerajaan akan terus mengadakan rundingan-rundingan dengan sektor swasta untuk menyelesaikan isu-isu dan masalah-masalah yang dihadapi oleh sektor swasta dalam melaksanakan dasar-dasar Kerajaan. Rundingan-rundingan ini akan terus diadakan melalui jentera yang ditubuhkan untuk perundingan serta melalui mesyuarat-mesyuarat bagi menyelesaikan masalah dan isu yang timbul. Dialog belanjawan tahunan dan jawatankuasa bersama sektor awam-swasta yang ditubuhkan oleh berbagai Kementerian akan terus menjadi saluran perbincangan untuk menyelesaikan isu-isu dan mengukuhkan saling-pergantungan antara sektor swasta dan awam dalam proses pembangunan.

11. Sectoral Development Programmes

CHAPTER XV

Agriculture, Livestock, Fisheries and Forestry

I. INTRODUCTION

636. Agriculture continues to play an important role in the economy. Being a dominant sector in which the incidence of poverty among the households was as high as 46.1% in 1980, the sector gives emphasis to development programmes and projects aimed at increasing income of farmers, livestock holders and fishermen through raising productivity levels, creating and expanding employment opportunities and modernizing the traditional agriculture. Effective policies and strategies, formulated on the basis of the experiences of the first decade 1971-80, will be implemented. The *in situ* development which includes the provision of basic infrastructure and agricultural inputs as well as promotion of local activities will be enhanced. A more integrated approach in providing these facilities will be carried out, especially in less-developed areas where larger number of poor farmers could benefit. In addition, new land development with perennial crops will be stepped up for the benefit of landless and underemployed farmers.

II. PROGRESS, 1971-80

637. The agricultural sector registered a value added growth in real terms of 4.3% per annum while its share of the Gross Domestic Product (GDP) declined from 30.8% in 1970 to 22.2% in 1980. The growth rate of 4.3% per annum was slightly below the targetted rate of 5.4% of the Outline Perspective Plan (OPP). Agricultural production was severely affected during the first half of the decade by the world recession in late 1974 and in 1975 and, among others, by adverse weather conditions during the second half, as shown in Table 15-1.

638. Exports of commodities as a main source of growth for both the economy and the agricultural sector experienced severe fluctuations in prices during the decade. In addition, the decade witnessed increasing diversification of the economy and of its commodity export structure, changing the

TABLE 15-1

MALAYSIA: GROWTH OF AGRICULTURAL OUTPUT, 1971-85

(1975=100)

	1970	1971	1976	1977	1978	1979	1980	1985	Average annual growth rate (%)		
									1971-75	1976-80	1971-80 1981-85
Rubber	85.9	89.6	111.3	109.2	108.7	108.3	108.3	112.1	3.1	1.6	2.3 0.7
Palm Oil	34.3	46.8	110.5	128.2	141.9	173.8	205.9	309.6	24.0	15.5	19.6 8.5
Sawlogs	92.5	94.2	136.7	148.2	147.6	140.1	128.6	107.6	1.6	5.2	3.4 -3.5
Padi	83.4	90.2	101.8	95.0	71.6	104.8	111.5	129.3	3.7	2.2	2.9 3.0
Pepper	94.9	84.1	113.8	85.0	94.9	n.a.	107.2	152.6	1.1	1.4	1.2 7.3
Fish	62.6	67.2	109.3	131.1	145.1	157.7	159.3	193.9	9.8	9.8	9.8 4.0
Livestock ¹	77.1	81.5	103.8	103.9	109.6	91.0	95.6	112.5	4.2	-0.9	2.2 -3.3
Miscellaneous ²	79.5	91.0	120.7	123.6	124.7	132.6	138.2	161.6	4.4	6.7	5.5 3.2
Aggregate production index	75.9	81.5	116.1	120.5	121.9	128.7	133.3	155.3	5.7	5.9	5.8 3.1

¹ Includes beef of buffalo and oxen, mutton, pork and poultry meat and eggs.² Includes sago, tapioca, cocoa, coffee, sugar cane, groundnuts, maize, fresh fruits, tobacco, tea, spices, food crops and other minor crops.

export composition in favour of the non-primary commodities. Agricultural exports declined in share from 52.1% in 1970 to only 35.8% in 1980 mainly due to the slow growth in the production of rubber and the emergence of crude oil and manufactured goods as important export commodities.

639. The second half of the decade also experienced increasing importance of palm oil and cocoa exports due to increased plantings and yield improvements. These commodities contributed 27.1% of total agricultural exports in 1980, compared with the declining share of rubber, sawlogs and pepper. While efforts were made to process rubber into more value added products, the bulk of rubber exports, however, was still in the unprocessed form due to the slow absorption into semi-processed or manufactured goods.

640. Continued efforts were made to expand employment opportunities as well as greater utilization of agricultural labour. About 352,300 jobs or 20.8% of new employment opportunities were created by the agricultural sector. The sector experienced a growth of 1.9% per annum over the decade compared with the projected growth rate of 1.3%. Agriculture provided a total of about 2,067,000 jobs or 40.6% of the total employment in 1980 compared with about 1,715,000 jobs or 50.5% in 1970. New employment opportunities were largely from the Federal and State land development schemes of which the Federal Land Development Authority (FELDA) and the Federal Land Consolidation and Rehabilitation Authority (FELCRA) created a total of 92,300 jobs over the decade.

641. The incidence of poverty in the agricultural sector declined from 68.3% in 1970 to 46.1% in 1980 compared with the OPP target of 49.3% for 1980. This decline resulted from the larger public resources allocated for the sector to improve farm productivity and the relatively favourable commodity prices prevailing during the later half of the decade. Within individual sub-sectors such as *padi*, mixed agriculture and fisheries, however, the incidence was still high.

In situ development.

642. Major developments took place in existing agricultural areas as a result of the implementation of integrated agricultural development programmes as well as the expansion of drainage and irrigation and replanting programmes.

643. *Integrated agricultural development.* Several large drainage and irrigation based projects such as Muda, Kemubu and Besut projects were completed during 1971-80. These projects benefitted a total of 109,000 farm families and contributed 57% of *padi* output in Peninsular Malaysia. Yield improvement in these schemes varied from 1,448 *gantang* per hectare in 1970 to 1,909 *gantang* in 1980 for MADA, 1,071 *gantang* per hectare in 1970 to 1,624 *gantang* for KADA and from 721 *gantang* to 1,369 *gantang* in the case of Besut.

644. Construction works for several similar projects commenced during the period. These included Krian/Sungai Manik Project, North-West Selangor Project and Western Johor Project Phase I. In addition, studies were undertaken in the later part of the Third Malaysia Plan (TMP) on several new integrated projects in Kemasin-Semerak in Kelantan, Lower Trengganu, Melaka, Negeri Sembilan Timur and Rompin-Endau to determine their feasibility.

645. *Drainage and irrigation.* Large investments were made in drainage and irrigation infrastructures aimed at improving farm productivity as well as facilitating the introduction of other diversified and high value crops during the period. About 68,000 hectares of land were provided with irrigation facilities for both single and double-cropping of *padi* in addition to the 97,400 hectares of existing areas already provided with similar facilities, benefitting a total of 136,800 farm families. This represented 67% achievement of the target.

646. Increased problems were experienced with regard to surface water supply, affecting the utilization of gravity irrigation facilities. Other sources of water including ground water were investigated for the purpose of supplemental irrigation. Several experimental projects using ground water for irrigation purposes in bris soil areas of Kelantan and Trengganu were also undertaken.

647. A total of 99,500 hectares of existing areas were provided with improved drainage facilities in addition to the 205,800 hectares of new areas which were provided with similar facilities. These areas were mainly in Western Johor Project and other sizeable but scattered tree crop growing areas such as Kesang Project in Johor, Bagan Datok, Bangsi, Bruas and Jenderata Projects in Perak, and Kelang, Kuala Langat and Pulau Lumut Projects in Selangor. These facilities enabled planting and intercropping with more remunerative crops as well as improving tree crop output.

648. *Replanting.* A total of 302,900 hectares were replanted with rubber and other crops by the Rubber Industry Smallholders Development Authority (RISDA), Sabah Rubber Fund Board (SRFB) and Department of Agriculture, Sarawak compared with 393,000 hectares targetted during the decade. Of these, 182,500 hectares were replanted during 1971-75 and the balance during 1976-80. The response to the replanting programme undertaken by RISDA, however, was more from the larger holdings despite the increase in the replanting grant from \$2,223 to \$2,964 per hectare for holdings of 4.1 hectares and below due to the reluctance of smallholders to replant for fear of losing their income. As a result, the rate of replanting by RISDA declined from 34,500 hectares per annum during 1971-75 to 21,500 hectares per annum replanted during 1976-80. In view of this, the replanting grant was further increased recently from \$2,964 to \$5,434 per hectare for holdings of 4.1 hectares and below and from \$2,223 to \$3,705 per hectare for holdings of more than 4.1 hectares.

649. The replanting of coconut holdings with emphasis on intercropping expanded rapidly, facilitated by support services and improved drainage. About 8,000 hectares were replanted during the decade bringing the total to 12,100 hectares since the scheme started in 1963. Although this rate was below the target of 10,500 hectares for the decade, improvements in the rates of replanting during the 1970s especially with the introduction of the MAWA variety resulted in increased farm productivity and income. The acreage of smallholdings totalled 191,000 hectares in 1970 compared with 198,800 hectares in 1980.

650. As for pineapples, increased replanting efforts were hampered by the continued shortage of labour in addition to persistent agronomic problems of peat soil and market uncertainties. About 7,000 hectares were replanted during 1971-80 out of a total area of 18,200 hectares, a rate far below the replanting target of 9,300 hectares.

651. *Rehabilitation.* During 1971-80, over 10,300 hectares of rubber and *padi* were rehabilitated by FELCRA in Peninsular Malaysia. Its efforts were mainly directed towards less successful land schemes developed by the various state governments. The rehabilitation programme involved the improvement of agricultural holdings through the adoption of modern agricultural practices and the provision of basic infrastructural facilities and support services. In addition, FELCRA also launched three pilot projects on land rehabilitation/consolidation, covering 761 hectares. These projects involved the restructuring and rehabilitation of existing *kampung* and agricultural holdings and the development of new areas on the fringe, aimed at maximizing production and increasing income. Following the completion of a feasibility study on the schemes of the Kelantan State Land Development Board (TAKDIR) in 1979, about 31,300 hectares were identified for rehabilitation and another 6,400 hectares of rubber and 2,100 hectares of orchard were being rehabilitated.

652. In Sarawak, the Sarawak Land Consolidation and Rehabilitation Authority (SALCRA) rehabilitated 4,500 hectares during 1976-80. Programmes undertaken by SALCRA were directed towards the agricultural and infrastructural development of holdings under native customary rights with a view to increasing income and reducing the practice of shifting agriculture.

653. About 35,300 hectares of coconut holdings were rehabilitated during the decade, bringing the total to 49,900 hectares. The acreage intercropped with cocoa and coffee totalled 9,800 hectares in 1980 as against 1,400 hectares in 1970. Smallholders continued to prefer rehabilitation as against replanting in view of income lost and the long gestation period of replanting despite income derived from intercropping.

654. *Crop diversification.* Efforts to promote the planting of non-traditional crops for import substitution and exports were intensified through the provision of input subsidies, extension services and necessary marketing facilities. Significant progress was achieved through both individual and co-operative farming systems. Substantial acreage was planted with cocoa and groundnuts enabling intensified land use and increased farm income.

655. *Livestock.* There was marked growth in the poultry and pig rearing industries attributable to the efficiency of these industries. The production of eggs, poultry and pork was sufficient to meet domestic demand while only 65% of beef and 5% of milk requirements were produced. For the ruminant sector, efforts were made to expand the population through increased imports and artificial insemination services. During 1971-80, about 17,500 heads of cattle were imported and 117,600 inseminated.

656. Established in 1972, the National Livestock Development Authority (MAJUTERNAK) was entrusted with the responsibility to develop beef/dairy farms on a commercial basis and reorganise and modernise abattoirs. Eight beef/dairy farms were established throughout the country with 12,000 heads of cattle. Under its abattoir reorganization and modernization programme, 10 out of 14 abattoirs constructed were fully operational by the end of 1980.

657. *Fisheries.* The Department of Fisheries undertook several programmes and projects during 1971-80 with the objective of improving the socio-economic position of fishermen and the supply of fish in the country. Several infrastructural facilities such as fishing harbour complexes at Kuala Kedah, Kuala Trengganu, Kuching and Lumut were completed during the period while those at Batu Maung, Chendering, Geting, Kuala Besut and Kuala Sedili were under various stages of construction. In addition, the Department also established other ancillary facilities such as landing jetties, packing sheds and cold rooms throughout the fishing villages.

658. The Fisheries Development Authority of Malaysia (MAJUIKAN) was established in 1971 to spearhead the development of commercial fisheries. During 1971-80, MAJUIKAN launched 152 boats under its trawler and purse seine schemes out of a total of 187 boats planned for the period. About 800 people were employed in these schemes and many more in associated industries. During 1976-80, MAJUIKAN implemented several aquaculture projects on a commercial basis. By the end of 1980, about 150 hectares of land were developed for aquaculture and 609 cages launched.

Land development

659. As shown in Table 15-2, over 866,100 hectares of new land were developed, representing 96.7% of the targetted acreage of 895,900 hectares during the period. A sum of \$3,732.8 million was expended for land and regional development. The Federal land development agencies developed 67% of the total acreage. FELDA developed about 373,700 hectares, mainly in the States of Johor (22%), Negeri Sembilan (17%) and Pahang (46%) and FELCRA, 50,700 hectares. In addition, RISDA developed 31,500 hectares under its block newplanting programmes to supplement incomes from the replanted holdings.

660. State agencies such as the State Land Development Boards (SLDBs), State Agricultural Development Corporations (SADCs) and State Economic Development Corporations (SEDCs) developed 290,100 hectares out of a targetted acreage of 233,700 hectares during the period.

661. Private estates and joint-ventures between the private sector and Federal and State agencies and regional development authorities were also undertaken during the period. A total of 120,000 hectares was developed, representing 89.2% of the target of 134,600 hectares. The Pahang Tenggara Regional Development Authority (DARA), Johor Tenggara Regional Development Authority (KEJORA) and Trengganu Tengah Regional Development Authority (KETENGAH) developed a total of 35,800 hectares on a joint-venture basis with the private sector. With the establishment of the South Kelantan Regional Development Authority (KESEDAR) in 1978, about 6,000 hectares were identified for implementation.

662. With the accelerated rate of land development in 1971-80, the acreage under perennial crops increased significantly during the period. Of the 455,900 hectares developed by the Federal land development agencies, 282,900 hectares were with oil palm, 150,700 hectares with rubber and the balance with sugar cane, cocoa, coffee and *padi*.

663. Land development and settlement programmes in the new areas aimed at producing viable farming communities continued to be emphasised. Within the period, FELDA resettled 42,200 families while FELCRA resettled 16,600 families and 4,100 youths in its fringe and youth schemes respectively. The SLDB schemes benefitted 9,288 families. In addition, about 142,500 workers were employed in projects operated by other agencies such as the SADCs, SEDCs and regional development authorities. Income per settler differed due to varying holding size and crops cultivated. Income ranged from \$3,600 to \$6,600 per annum for settlers with 4.1 hectares of matured holdings in Federal land schemes.

TABLE 15-2

MALAYSIA: PROGRESS IN LAND DEVELOPMENT, 1971-80 AND TARGET ACREAGE, 1981-85

(hectares)

Agency/Programme	Target, 1971-80	Achievement, 1971-80	Target, 1981-85
<i>Federal programmes</i>			
FELDA	365,587	373,705	149,798
FELCRA ¹	60,729	50,710	32,662
RISDA ²	101,215	31,463	15,409
	<u>527,531</u>	<u>455,878</u>	<u>197,869</u>
<i>State programmes</i>			
Peninsular Malaysia ³	75,911	155,662	143,872
Sabah ⁴	67,611	57,816	56,680
Sarawak ⁵	90,202	76,655	16,599
	<u>233,724</u>	<u>290,133</u>	<u>217,151</u>
<i>Joint-venture/private sector⁶</i>	<u>134,615</u>	<u>120,047</u>	<u>128,441</u>
TOTAL	<u>895,870</u>	<u>866,058</u>	<u>543,461</u>

¹ Excluding rehabilitation schemes and existing kampung in consolidation schemes.

² Block newplanting schemes only.

³ For programmes of regional development authorities, SLDBs, SADCs, SEDCs, and others such as Departments of Agriculture and District Offices.

⁴ For programmes of SLDB, SRFB and Cooperative Development.

⁵ For programmes of SLDB and Department of Agriculture (rubber newplanting only).

⁶ For joint-venture projects between public sector agencies such as SADCs, FIMA, regional development authorities with the private sector and private sector sole participation for Malaysia as a whole.

Forestry development

664. Recognizing the vital role of forests for the community and the economy and the need for a common forest policy aimed at regulating the industry, the National Forestry Policy was accepted and adopted by the state governments in 1978. It provided for the establishment of permanent forest estates and formed the basis for a systematic approach in the conservation, management, utilization and development of forest resources. It also formed the basis for better coordination and understanding between Federal and state governments.

665. Programmes were identified for the continued promotion of optimal exploitation of forests on a sustained yield basis, especially through proper management practices. Under the forest regeneration programmes of the state governments, a total of 47,700 hectares were regenerated and 12,700 hectares newplanted during 1971-80. In addition, with the completion of the Forest Industries Development Project (FIDP) in 1973, an inventory of logged-over forest was carried out over 181,500 hectares, of which, about 91,300 hectares were treated, 78,400 hectares surveyed for regeneration possibilities, 8,700 hectares subjected to enrichment planting and 3,100 hectares developed for pine plantation in Peninsular Malaysia.

Agricultural support services

666. Institutional improvements including consolidation were undertaken to ensure a more effective machinery of providing agricultural support services such as extension, training, subsidies, research, marketing and processing. A major development was the introduction of *geraktani* concept in the later part of 1976-80 in order to assist farmers in obtaining agricultural support services provided by multiple agencies in a coordinated manner.

667. *Training and extension.* During 1971-80, about \$166.6 million was expended on agricultural education and training at the professional, supervisory and operative levels. *Universiti Pertanian Malaysia* (UPM) provided courses for professional and supervisory levels and by the end of 1980 produced 365 graduates at the professional level and 2,709 at the diploma level in the field of fisheries, veterinary science and agriculture. Six agricultural institutes conducted training for operative level personnel and up to 1980, about 7,700 were trained.

668. The Department of Veterinary Services provided training in animal husbandry and management to farmers and departmental personnel. During 1971-80, 2,300 farmers received training at the Veterinary Institute, Kluang, and 3,500 at the various poultry training centres in various aspects of animal husbandry and management. The total number of departmental personnel trained by the end of 1980 was 1,000.

669. For the fishermen and fish farmers, several types of training programmes were provided by the Department of Fisheries. The Fishermen's Training Institute in Pulau Pinang provided advanced technical training to produce skippers and enginemen and by the end of 1980, 405 operatives received training. The Marine Fisheries Training Centres in Pulau Pinang and Kuala Trengganu conducted short-term training courses to fishermen in basic navigation and engine maintenance and during 1971-80, 1,016 were trained. The Inland Fisheries Training Centre and the various fish breeding stations provided training in fish culture to 2,400 people during 1971-80.

670. Facilities for training in skills associated with the timber industry were provided at the two logging training centres, two forestry schools, the Forestry College at Kepong and recently by the UPM. During the decade, a total of 2,934 were trained at these institutions.

671. To facilitate the effective management of land development programmes, the Institute of Land Development of FELDA at Trolak, Perak was established in 1977 to cater for the intermediate and higher level staff in FELDA and other land development agencies. By the end of 1980, a total of 3,885 staff was trained at this centre.

672. The training programmes and facilities for extension services were further expanded and improved with the implementation of the National Extension Project which provided for the expansion of extension staff and in-service training facilities, as well as improved extension methods through the Training and Visiting System. By the end of 1980, a total of 50 districts was covered involving 400,000 farm families. During 1976-80, a total of 5,966 extension staff was trained. The six agricultural institutes were further equipped and expanded to increase the supply of agricultural technicians. In support of the mechanization efforts for farm activities, 5,000 farmers were provided with training in this aspect in the ten Agricultural Mechanization Centres.

673. The training and extension programme for rubber smallholders was undertaken by RISDA while that for pineapple growers by the Malayan Pineapple Industry Board (MPIB). During 1971-80, RISDA trained 199,035 farmers and 9,284 departmental personnel while MPIB trained 5,600 farmers and 83 departmental personnel.

674. *Agricultural credit and subsidies.* Bank Pertanian Malaysia (BPM) which started its operations in 1970, contributed significantly in meeting agricultural credit requirements. During 1971-80, BPM approved loans amounting to \$642 million, of which \$159 million were during 1971-75 and \$483 million during 1976-80. The loans were mainly for *padi* production amounting to \$169.4 million or 27.1%, \$153.1 million or 23.9% for tobacco production and marketing and \$137.5 million or 21.4% for estate development. The rest amounting to \$154 million was for livestock, fisheries, agricultural machinery, agro-based industries, forestry and for purchase and development of land. In terms of coverage, as at the end of 1980, 285,950 farmers received loans under the *padi* production credit scheme, 340,900 for tobacco production and marketing and 103 for estate development.

675. Credit was provided by RISDA to sustain income and supplement the replanting grants for holdings of more than 4.1 hectares which were eligible to receive \$2,223 per hectare. In addition, credit was also provided for intercropping, redemption of land titles, consumption during the period of immaturity and other agricultural activities. A sum of \$13.2 million was disbursed since 1979.

676. Since its establishment in 1973, the Farmers' Organization Authority (FOA) provided fertilizers, agrichemicals and planting materials under its subsidy programme amounting to \$53.5 million. In the later part of the 1971-75 period, FOA provided credit for agro-based industries, farm machinery and equipment and for off-farm activities.

677. The Department of Fisheries provided various types of subsidies to ~~fishermen and fish farmers~~. About 21,100 fishermen or 22% of the fishermen in the country received \$49.8 million assistance in the form of subsidies, raising the number of artisanal fishermen equipped with modern gears. For fish farmers, subsidies were given for pond construction and supply of fish fry and feed. A total of 5,700 farmers was given subsidies for fish culture during 1971-80 amounting to \$9.2 million. Fishermen associations/co-operatives were provided with \$16.3 million by MAJUIKAN during 1976-80 for working capital to undertake trading activities in inputs and consumption goods.

678. The Department of Veterinary Services continued to provide subsidies to encourage the development of livestock. During the decade, \$28.9 million was expended for cattle breeding, \$8.8 million for poultry rearing and \$2.6 million for the rearing of pigs and goats. A total of 58,200 farmers benefitted from these schemes.

679. Various forms of subsidies were given to promote crop diversification. Under its Agricultural Inputs and Diversification Programme, the Department of Agriculture provided \$82.7 million for various crops, benefitting 573,524 farmers. Added to this, about \$34.3 million was spent under the pepper subsidy scheme for Sarawak while under the urea subsidy scheme for *padi* introduced in 1974, \$101.8 million was expended.

680. *Agricultural research.* Agricultural research activities were carried out by the Malaysian Agricultural Research and Development Institute (MARDI), the Fisheries Research Institute, the Veterinary Research Institute, the Forest Research Institute (FRI), the Rubber Research Institute of Malaysia (RRIM), the Malaysian Rubber Producers Research Association (MRPRA) and the recently established Palm Oil Research Institute of Malaysia (PORIM).

681. MARDI conducted research on appropriate agricultural technology and accorded priority to problems of the small farmers' crops such as *padi*, cocoa and coconut. New high yielding varieties of *padi* such as Sri Malaysia I and II and shorter maturing varieties such as MR 7 and MR 10 all capable of yielding between 1,730-2,718 *gantang* per hectare found widespread adoption by farmers. Significant progress was achieved in the development of vegetative methods of propagation of cocoa. For coconuts, suitable cultural practices and nutrient requirements for hybrids were studied. Applied research on problems related to handling, storage, processing of

food and by-products were also carried out. Under its livestock programme, the main thrust was towards the improvement of supply and quality of feedstuffs, both for ruminants and non-ruminants. Studies on the spawning and rearing techniques in the breeding and reproduction of freshwater fish were also successful.

682. Initial research on oil palm was carried out by MARDI with emphasis on agronomic studies for crop improvement. During 1971-79, more than 700,000 commercial seeds were produced for public sector land schemes. Genetic materials of diverse types of oil palm were collected from Nigeria to accelerate palm breeding. With the establishment of PORIM in 1979, it took over the palm oil research activities of MARDI but placed initial emphasis on technological and end-use research. The activities of PORIM focussed upon expanding uses of palm oil, formulating new uses, improving agronomic practices and minimizing cost of operation.

683. In the field of rubber, RRIM in cooperation with the private sector, among others, was successful in reducing the immaturity period of rubber from six to four years and in introducing the application of ethrel to increase yields. In addition, the MRPRA introduced new uses of rubber in industrial and engineering applications.

684. During 1976-80, the Department of Fisheries carried out surveys on demersal and pelagic fish resources and conducted research to improve techniques of fishing. Several studies were also carried out on biological aspects of marine fishes.

685. The facilities at the Veterinary Research Institute, Ipoh, were expanded to improve diagnostic activities and increase the production of vaccines for specific animal diseases. The six regional diagnostic laboratories established during 1971-80 had provided a much improved veterinary health coverage to farmers in the prevention of disease outbreaks. The outbreak of the foot and mouth disease in 1978 and in 1980 due to illegal movements of animals into the northern parts of Peninsular Malaysia was quickly stamped out.

686. Forest research focussed on the development of forest regeneration techniques and timber utilization. Considerable efforts were directed by FRI to silviculture of regenerated forests and forest hydrology. Progress was also made in determining preservation and seasoning schedules of various local timber species; pulping properties of certain species; wider utilization of quick-growing species and rubber wood; and working properties of locally grown teak.

687. *Agricultural processing and marketing.* The period 1971-80 saw the expanded role played by Government agencies in the field of agricultural processing and marketing aimed at assisting small agricultural producers including livestock holders and fishermen. These activities helped farmers to obtain fair prices for their produce.

688. The Malaysian Rubber Development Corporation (MARDEC) which was set up in 1971 established 15 factories during 1971-75 with a combined capacity of 110,000 tonnes per annum, benefitting 75,000 smallholders. RISDA set up 1,903 smallholders development centres, benefitting 47,100 smallholders. Beside processing farm commodities, FOA also transacted about \$46.3 million worth of rubber, *padi*, groundnut, tapioca, tobacco and cocoa, benefitting directly the farmers associations/organizations and individual farmers.

689. During the decade, the *Lembaga Padi dan Beras Negara* (LPN) expanded its activities in *padi* and rice marketing including the provision of processing, drying and warehousing facilities. With the setting up and completion of 16 integrated and drying complexes together with the additional milling capacities in existing ones, LPN was able to meet the processing requirements in the large drainage and irrigation project areas. LPN thus increased its drying capacity from 306,000 tonnes in 1971 to 540,600 tonnes in 1980 or 28.3% of *padi* production while the milling capacity expanded to 282,640 tonnes or 15% of *padi* production.

690. FELDA commissioned 30 palm oil mills with a total capacity of 1,087 tonnes of fresh fruit bunches (ffb) per hour to cater for its land schemes and other agencies such as FELCRA. It also established two Standard Malaysian Rubber (SMR) and two latex concentrate factories with a combined daily capacity of 102 tonnes and 86.7 tonnes respectively. In addition, a cocoa mill to produce wet beans with a capacity of 10.2 tonnes per day was established in Kota Gelang, Pahang. Two subsidiary corporations, FELDA Milling (FELMILL) and FELDA Marketing (FELMA) were set up to handle the processing and marketing activities of FELDA respectively.

691. The National Tobacco Board (NTB) established in 1973, regulated the production, processing and marketing of tobacco. These activities coupled with extension and other services resulted in increased acreage of tobacco from 4,000 hectares in 1971 to 13,400 hectares in 1980 and production of cured leaves to 10,200,000 kg. in 1980 compared with 3,900,000 kg. in 1971.

692. The Federal Agricultural Marketing Authority (FAMA) underwent significant changes during the decade. During 1971-75, FAMA operated on a more centralised basis in an advisory capacity to other Government agencies and rendered indirect assistance to the farming community through its market arrangement services, dissemination of market data and agricultural marketing surveys and studies. Regulatory marketing schemes for coconut, coffee and pepper were also introduced. With the establishment of LPN, MAJUTERNAK and MAJUIKAN in the early years of the decade, FAMA ceased to be involved in the marketing of *padi* and rice, livestock and fish products.

693. During the second half of the decade, FAMA intensified its involvement in other crops such as coconut, cocoa, coffee, pepper and vegetables and participated directly in marketing through the activities of its various

processing centres. State and regional offices were established throughout the country to render direct assistance to the farmers. FAMA also expanded its market extension, survey and marketing research activities to complement its other programmes. Additional regulatory marketing schemes for cocoa and vegetables were introduced during the period.

694. The fish regulatory marketing scheme established by FAMA was taken over by MAJUIKAN in 1973. To date, the scheme covered Alor Setar, Changloon, Ipoh, Johor Bahru, Kuala Lumpur, Kuala Trengganu and Kuching. Since 1979, MAJUIKAN participated in wholesaling and retailing of fish to provide competition and stabilise the price of fish. MAJUIKAN also established ice plants in Geting, Kuala Perlis and Kuantan during the period.

695. Under the meat trading project of MAJUTERNAK, the marketing of beef was started in 1973 and poultry in 1976. As at the end of 1980, a total turnover of \$66 million for beef and \$4.9 million for poultry was transacted. In the case of poultry trading, 90% of the birds processed by MAJUTERNAK were purchased from farmers involved in Government sponsored schemes. A large proportion of the birds was supplied to Government institutions.

Agricultural production

696. *Rubber.* Production of rubber grew by about 2.3% per annum during the decade from 1,270,000 tonnes in 1970 to 1,600,000 tonnes in 1980, compared with the projected growth of 2.8%, largely due to increased acreage in the smallholder sector and overall improvements in yields. Excluding tea and pepper production which contributed insignificantly to GDP, export earnings and employment, the overall production growth rate of rubber was the lowest compared with those of sawlogs, palm oil and even *padi* which in the last few years experienced drought conditions. Planted acreage under the estates declined over the years from 647,200 hectares in 1970 to 507,100 hectares in 1980 and its production decreased to 40% due to the continued conversion to oil palm and other crops and the subdivision of estates. The overall acreage under rubber of 2,100,000 hectares was sustained mainly by the smallholder sector in particular in FELDA schemes.

697. In an effort to encourage further investment in rubber in view of its attractive prospect in the future, the rubber export duties were restructured and the smallholders' rubber replanting grant increased in the later part of the decade. The increase in the replanting grant has improved the rate of replanting and this was further induced with the implementation of the restructuring of the rubber export duties in 1979. The continued increase in rubber prices in the last decade has, however, not provided sufficient stimulus for marked shifts to rubber investments and replanting, in particular among the smallholders faced with immediate short-term gains and long-term risks of replanting. The implementation of a Rubber Stockpile

Scheme by the International Rubber Stabilization Agreement in the later part of the decade provided the necessary stability in rubber market for both output and prices.

698. *Palm oil.* Palm oil production expanded at 19.6% from 431,000 tonnes in 1970 to 2,590,000 tonnes in 1980. Between 1970 and 1980, planted acreage increased from 308,800 hectares to 890,000 hectares with smallholders accounting for 72% and estates 28%. The high rate of conversion to oil palm by the estates and the higher proportion of oil palm grown in land development schemes increased planted acreage which, together with substantial yield increases, accounted for the rapid production. The share of palm oil in agricultural value added increased from 9.6% in 1970 to 25% in 1980 while its export earnings increased from \$264 million in 1970 to \$2,576 million in 1980.

699. *Padi.* Production of *padi* increased from 1,434,600 tonnes in 1970 to 1,913,200 tonnes in 1980. Drought conditions prevailing in late 1978 and in 1979 affected the production in those years. Yield per hectare increased from 1,055 *gantang* to 1,260 *gantang* during the period while acreage under *padi* increased from 533,400 hectares to 595,600 hectares, of which 56% was under double cropping. The gap between domestic supply and consumption has increasingly been reduced. Rice self-sufficiency level increased to 92% in 1980 from 78% in 1970.

700. Despite production deficits, the supply and price of locally produced rice in the country were stabilised in the face of fluctuations in international supply mainly due to the rice and *padi* purchasing and stockpile activities of LPN. In addition to expanding warehouse facilities, LPN through its support price scheme enabled *padi* price to be maintained at a stable level to generate the necessary farm response.

701. *Coconut.* Copra production declined during 1971-75 following the decreasing trend of acreage planted and harvested. This trend, however, was reversed due to the coming in production of trees replanted and rehabilitated under the coconut replanting scheme initiated in 1963 among the smallholders. Most of the coconut and copra produced were mainly from the smallholdings which increasingly intercropped with cocoa or coffee. The setting up of processing facilities by FAMA enabled the farmers to obtain better prices for both the nuts and the copra. Production of coconut, however, was still insufficient to meet the requirements of oil mills despite a production growth rate of 5.3% per annum during the decade from 195,100 tonnes to 326,600 tonnes. The increase in production of 67.4% over the decade took place even though acreage increased marginally.

702. *Pepper.* Production of pepper, an important agricultural export commodity of Sarawak, showed an increasing trend in the later part of 1976-80 due to the fruition of replanted areas and the expansion of areas planted in the mid 1970s. Pepper prices continued to prevail at a higher level in the second half of the decade exerting strong influence on

the utilization of existing land areas. Acreage planted with pepper increased at a rate of 3.8% per annum to 12,900 hectares in 1980 from 8,900 hectares in 1970 while production increased by 1.2% per annum from 31,600 tonnes to 35,700 tonnes during the period.

703. *Timber.* Sawlogs, one of the major export earners, experienced cyclical variations in output and prices during the decade in response to international demand. Production expanded at a rate of 3.4% per annum from 17,698,000 cu. metres in 1970 to 24,600,000 cu. metres in 1980 as against 1.6% and 5.2% during 1971-75 and 1976-80 respectively. The bulk of this output was from Sabah and Sarawak which exported most of their output as sawlogs. As a result of a substantial increase in export prices in the later part of 1976-80, production of sawlogs expanded rapidly although the rate of export growth was lower than that of production. This was due to increasing local use of sawn timber coupled with restriction on exports of logs since 1973. Production from Sabah, a major producer, declined as the State introduced control on logging. Sawlogs accounted for 8.6% or \$2,435 million of total commodity exports in 1980 compared with 12.5% or \$643 million in 1970.

704. *Minor crops.* Production of minor crops including cocoa, sugar cane, tobacco and fruits and vegetables experienced moderate output growth over the decade. Cocoa production grew rapidly with increased acreage estimated at 68,700 hectares in 1980 compared with 7,400 hectares in 1970. A large portion of the increase in cocoa area was from intercropping. Production of dry beans increased by more than eight fold to 33,000 tonnes in 1980, a major portion of which was still exported. The quality of cocoa output of smallholders continued to be affected by problems of inadequate processing facilities and lack of technical knowledge with regard to acidity.

705. The cultivated acreage under sugar cane was estimated at 17,500 hectares mainly in Kedah, Perak and Perlis. Annual yields and output varied according to climate, soil suitability, occurrence of diseases and availability of labour. As the level of cane production was inadequate to meet the existing mill requirement, greater reliance was placed on imports of raw sugar. It was estimated that local production of sugar could only meet 13.8% of domestic demand.

706. Tobacco production increased rapidly over the decade as acreage planted expanded and was further stimulated by high stable prices. Despite high production costs, low yields and poor leaf quality, production of cured leaves increased by 22% annually from 1,890,000 kg. in 1970 to 10,500,000 kg. in 1980, the bulk of which was from the states of Kelantan and Trengganu which together accounted for 90% of total planted acreage of 13,000 hectares. Increased efforts were made to extend tobacco production to areas of problem soils particularly the bris areas.

707. During the decade, the cultivation of fruits and vegetables expanded as a result of the provision of subsidies and marketing incentives. The acreage under fruits increased from 68,500 hectares in 1970 to 86,600 hectares in 1980. Similarly, the acreage under vegetables also expanded from 7,700 hectares in 1970 to 9,000 hectares in 1980.

708. *Livestock and fisheries.* Livestock production constituted about 6% of total agricultural output in 1980. It expanded at a slow rate of 2.2% per annum during the decade compared with the projected rate of 5-6% due to the foot and mouth disease in the later part of 1976-80. Much of the growth of the output in the first half of the decade was from rapid expansion of the poultry and pig production. Production of beef, milk and mutton also expanded as a result of the *pawah* programme and beef/dairy projects of the Veterinary Department and MAJUTERNAK. Milk production increased substantially with the implementation of the dairy development programme for smallholders. The development of the livestock industry, however, continued to depend on high cost imported feeds.

709. The modernization of the fishing industry and provision of support facilities enabled fish landings over the years to increase from 340,400 tonnes in 1970 to 866,000 tonnes in 1980. Production growth was estimated at 9.8% per annum during the decade compared with the projected rate of 6.7% while its contribution to agricultural output increased from 4.4% in 1970 to 11.2% in 1980. Programmes for the development of aquaculture for both prawns and fish were further expanded during 1976-80 to supplement marine production.

III. OBJECTIVES AND TARGETS OF AGRICULTURAL DEVELOPMENT, 1981-85

710. The agricultural sector will continue to play its major role in the development of the economy and its resource allocation will be rationalised to sustain this role. Modernization and commercialization of the sector will continue to be emphasised through institutional improvements although the patterns and forms of investment in the sector are unlikely to change.

711. During 1981-85, agricultural value added is projected to grow at a rate of 3% per annum and continue to decline in its contribution to GDP to 17.8% in 1985. The main source of production growth will be palm oil which is expected to grow at 8.5% per annum, constituting 32.5% of total agricultural output in 1985. The share of rubber in agricultural output, however, will decline from 25% in 1980 to 22.3% in 1985. Cocoa production will increase substantially although the country's share of total world output would still be marginal. Sawlogs will continue to decline in importance.

712. The share of agricultural sector in total employment is expected to be 35.9% by 1985. The sector is projected to create about 71,500 new jobs mainly from new land development schemes, reflecting a growth rate of

707. During the decade, the cultivation of fruits and vegetables expanded as a result of the provision of subsidies and marketing incentives. The acreage under fruits increased from 68,500 hectares in 1970 to 86,600 hectares in 1980. Similarly, the acreage under vegetables also expanded from 7,700 hectares in 1970 to 9,000 hectares in 1980.

708. *Livestock and fisheries.* Livestock production constituted about 6% of total agricultural output in 1980. It expanded at a slow rate of 2.2% per annum during the decade compared with the projected rate of 5-6% due to the foot and mouth disease in the later part of 1976-80. Much of the growth of the output in the first half of the decade was from rapid expansion of the poultry and pig production. Production of beef, milk and mutton also expanded as a result of the *pawah* programme and beef/dairy projects of the Veterinary Department and MAJUTERNAK. Milk production increased substantially with the implementation of the dairy development programme for smallholders. The development of the livestock industry, however, continued to depend on high cost imported feeds.

709. The modernization of the fishing industry and provision of support facilities enabled fish landings over the years to increase from 340,400 tonnes in 1970 to 866,000 tonnes in 1980. Production growth was estimated at 9.8% per annum during the decade compared with the projected rate of 6.7% while its contribution to agricultural output increased from 4.4% in 1970 to 11.2% in 1980. Programmes for the development of aquaculture for both prawns and fish were further expanded during 1976-80 to supplement marine production.

III. OBJECTIVES AND TARGETS OF AGRICULTURAL DEVELOPMENT, 1981-85

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712. The share of agricultural sector in total employment is expected to be 35.9% by 1985. The sector is projected to create about 71,500 new jobs mainly from new land development schemes, reflecting a growth rate of

0.7% per annum; substantially lower than that of 1.5% during 1976-80. This trend will be further accentuated as the sector continues to lag behind the real GDP per capita of other sectors. Planned operational adjustment of land and labour resources in the sector will be pursued to minimise disruptions to agricultural output and land utilization.

713. For the Fourth Malaysia Plan (FMP), the sector will be provided with the required quantum and pattern of allocation and supported by fiscal policies to further modernise and restructure the production base. Capital formations in new land development, perennial crops and drainage and irrigation infrastructure will continue to dominate the allocation for the sector although institutional and agricultural support facilities will greatly expand in importance, particularly extension, processing and marketing. About \$8,608.6 million or 20.1% of the public sector allocation is provided for the sector.

714. The trends and patterns of economic growth in general and those of agriculture in particular will result in a reduction of poverty incidence and number of agricultural poor as more underemployed in the sector are absorbed in the higher productivity land development schemes. A large portion of the agricultural poor will still be *padi* farmers, rubber and mono-crop coconut smallholders and fishermen.

715. *Policy objectives.* In the light of the continuing importance of agriculture in the economy and the prevailing high incidence of poverty in the sector, the over-riding objective of the sector will continue to be the increase in income through productivity improvements and creation of employment opportunities. Sectoral policies, programmes and projects will, therefore, be geared to assist farmers and fishermen in less-developed areas. Efforts at maximizing farm productivity of existing holdings and creation of employment opportunities largely through integrated agricultural development and new land development will continue to be emphasised.

716. *Issues and strategies.* The two-pronged approach for agricultural development through *in situ* and new land development will continue to be sustained for the FMP. In drawing up a national agricultural policy for the future, broad evaluations on the effectiveness of present crop and land-use strategies were made, thus paving the way for concerted efforts to be undertaken in areas where the desired impact is lacking.

717. The integrated approach towards agricultural development was increasingly adopted in the last decade to ensure effective coordination of activities provided by various agencies. This strategy will be further enhanced with a more streamlined approach in project implementation through better screening of projects, distinct delineation of agency functions and improved monitoring and evaluation to ensure maximum results to intended beneficiaries and the overall economy.

718. With the limited availability of suitable agricultural land for large scale land development, the large numbers of landless poor, increasing costs of development triggered by higher costs of labour, transport and farm inputs and the necessity of maintaining accepted levels of income and standard of living, the need for reviewing the strategy for new land development cannot be overemphasised. The present strategy of monocrop cultivation, contractual operations of field development and limited settler family participation in the development process will be reviewed in order to attain maximum benefits from land development programmes. In addition, in order to ensure equitable income among settlers, cushion them against fluctuations in income, minimise risks due to crop damages and problems attendant upon ownership of land, the Government will introduce share ownership system for future land development schemes. Under the new system, settlers would be given individual ownership of their house lot, receive wages for work and a share of the profits of the plantation.

719. The *in situ* programmes enable increases in the level of productivity and income. It is envisaged that with intensive farming coupled with off-farm activities, the income of farmers will be further enhanced. However, the full impact could not be realised generally because of uneconomic-sized holdings. The difference in income level between the beneficiaries of *in situ* development and that of new land development as well as the continuing injection of massive investments in the former, necessitate the formulation of a land consolidation policy. For this purpose, the Government will make the necessary amendments to the FELCRA Act.

720. *In situ* development is also faced with the problem of rural-urban migration resulting in the shortage of farm labour. The absorption of the rapidly growing labour force into higher income jobs outside the farm necessitates a further emphasis in mechanization programmes.

721. The fisheries sub-sector has limited potential for expansion particularly in the inshore areas. In view of this, greater efforts will be made to induce fishermen to shift to fish farming using unutilised brackishwater and freshwater areas as well as offshore fishing.

IV. PROGRAMMES, 1981-85

722. The agricultural programmes for the FMP will continue to meet the objectives of the New Economic Policy (NEP). Emphasis will be given to coordinated and integrated development of the agricultural sector to ensure efficiency as well as enable the rural people to enjoy the basic infrastructure and essential support services previously not available.

***In situ* development**

723. *Drainage and irrigation.* In line with the objective of self-sufficiency in rice, drainage and irrigation facilities will be constructed for double cropping of *padi* to increase production. Similar facilities will also be provided.

for further diversification of cropping patterns and intensified land use in existing areas using surface and where feasible ground water resources. About 45,000 hectares of new *padi* land will be provided with these facilities in addition to 83,000 hectares of existing areas where facilities will be improved and upgraded for double cropping. Efforts will be made to expand irrigated areas for short-term high value crops and to improve infrastructural facilities in the principal rice bowl areas of KADA and MADA.

724. *Integrated agricultural development.* Several new projects including settlement schemes for *padi* cultivation will be implemented during the period. The Rompin-Endau and Trans-Perak Projects will settle 11,700 families while the Western Johor Phase II will provide improved and new drainage facilities to 210,500 hectares for tree crop smallholders. Other integrated projects include Kedah Valley, Kemasin-Semerak, Melaka, Negeri Sembilan Timur, Pahang Barat and Lower Trengganu. Mixed cropping and diversified farm activities as well as intensified land use will be the main strategy in these projects. About 1,427,500 hectares are expected to be developed involving 446,045 farm families.

725. *Replanting.* In line with the Dynamic Production Policy of natural rubber, production of the country's natural rubber will be stepped up while at the same time, replanting of smallholdings of 4.1 hectares and below will be encouraged. Special attention will be given to smallholders owning two hectares and below. For 1981-85, RISDA has set a target of 141,500 hectares for replanting, benefitting 70,000 smallholders. Some of the earliest schemes of FELDA are due for replanting within 1981-85, of which 4,000 hectares are earmarked for replanting beginning in 1983. The SRFB and the Department of Agriculture, Sarawak will replant about 8,100 hectares and 4,500 hectares respectively. As regards pineapple replanting, the MPIB will replant 5,000 hectares. The replanting of coconut intercropped with cocoa and coffee coupled with the rearing of livestock will continue to be promoted, adequately backed up with basic infrastructure and support facilities to maximise farm income. About 8,300 hectares will be replanted in the next five years involving 27,000 smallholders.

726. *Rehabilitation.* Land rehabilitation will continue to be the mainstay of activities undertaken by FELCRA. During 1981-85, FELCRA will rehabilitate 25,500 hectares mainly in the states of Kelantan, Pahang and Perak. In Sarawak, SALCRA will rehabilitate 16,200 hectares, of which 14,200 hectares will be for oil palm and the balance for cocoa.

727. The operations of TAKDIR will be stepped up with the rehabilitation of 9,700 hectares of rubber and 1,200 hectares of orchard. Housing, basic infrastructure and other social amenities will also be included to improve the effectiveness of its schemes.

728. The coconut rehabilitation programme will be expanded with emphasis on intercropping with more remunerative crops such as cocoa and coffee. During the period, 23,400 hectares will be covered.

729. To complement the activities of the other agencies, \$78 million is allocated to FOA to develop and rehabilitate abandoned and underutilised land including land adjacent to existing agricultural areas on a cooperative basis.

730. *Crop diversification.* The crop diversification programme will be further expanded and implemented as a component of integrated agricultural development projects. The promotion of local fruits and other commercial crops will be supported by subsidies. About 120,700 hectares will be covered under this scheme. Growing of pepper will be further encouraged to sustain the production and exports of this commodity through newplanting of 8,300 hectares during the period.

731. The NTB will gear its activities to improve the income of farmers through productivity increases and the improvement and expansion of the processing facilities and marketing system. It will also effectively regulate the industry with a view to ensuring that supply matches demand and that prices will be reasonable and fair to farmers, curers and manufacturers. Based on the projected demand of cured leaves in 1985 and the present conversion factor from green leaves to cured leaves, an additional 3,209 hectares will be planted with tobacco. The potential areas will be mainly in the bris soils of Kelantan, Pahang and Trengganu. For the FMP, an allocation of \$13 million is provided to the NTB to carry out its activities.

732. *Livestock.* During the period, efforts will be made on the progressive implementation of programmes to meet the domestic requirements for beef and dairy. In addition, the Government will continue to provide assistance to the poultry and pig sub-sectors particularly to the small farmers.

733. The Government, through existing agencies, will continue to lay emphasis on promoting and developing efficient and effective management in beef and dairy enterprises. MAJUTERNAK will consolidate the operation of existing beef/dairy farms and, in addition, will import high quality animals for breeding purposes, a large proportion of which will be for eventual distribution to small livestock holders through the Department of Veterinary Services. To ensure the hygienic processing of meat, the management of slaughter houses will be upgraded.

734. In conjunction with the activities of MAJUTERNAK, the Department of Veterinary Services will focus on the improvement of basic services for the development of animal husbandry. These include training, extension and health services as well as the provision of chicks, bulls and heifers under its subsidy programme.

735. *Fisheries.* With a view to improving the income and welfare of poor fishermen and increasing fish landing, efforts of both the Department of Fisheries and MAJUIKAN will be intensified and effectively coordinated during 1981-85. Infrastructural facilities such as fishing harbour complexes

which were built during 1976-80 at Batu Maung, Chendering, Geting, Kuala Keluang and Kuala Sedili will be completed while a new fishing complex at Kuala Kemaman will be constructed. To facilitate the handling and marketing of fish, shore facilities such as cold rooms, auction halls and sorting and packing facilities will be provided. In addition, MAJUIKAN will continue to encourage the development of fishermen's associations not only to integrate their activities but also to reduce their dependence on middlemen.

736. More allocations are given to the Department of Fisheries and MAJUIKAN to develop aquaculture to supplement sources of protein and to create employment opportunities for the rural people. Under this programme, aquaculture in brackishwater will be implemented in the states of Johor, Kedah and Sarawak; inland aquaculture in the regional development authority areas such as DARA, KEJORA, KESEDAR and KETENGAH and the cage/pen culture in Perak and Selangor. In addition, hatchery projects will be established in Johor, Kedah, Sarawak and Trengganu.

Land development

737. The significant achievements in land development in the past for employment creation and income improvements provide a sound base for the expansion of the programme. A target of 543,500 hectares is earmarked for development during 1981-85. With escalating costs of development due to difficulties of access and rising costs of materials and labour, the approaches to land development will be modified in the light of these factors to reduce the burden on the settlers. Intensive cultivation through intercropping and livestock rearing and greater participation from the settlers and their families in the development process will be encouraged in order to maximise income. FELDA will continue to play its dominant role in new land development. It will develop a total of 149,800 hectares during 1981-85 for agricultural development and settlement including infrastructure. The target for settler intake is 30,000, with priority given to those coming from states where agricultural land is scarce.

738. FELCRA will develop 25,500 hectares of fringe schemes and 1,600 hectares for youths during 1981-85. Together with its consolidation and rehabilitation schemes, FELCRA will develop a total of 60,700 hectares, signifying a two-fold increase over the TMP. Emphasis will be directed to stepping up the development of numerous pockets of land suitable for agriculture. The areas earmarked for youth schemes will be confined to the extension of existing schemes. Youths in future will be assimilated into other land schemes such as FELDA. A total of 23,500 families/youths will benefit from the land schemes of FELCRA.

739. RISDA will continue to develop its block newplanting schemes. Owing to the scarcity of land adjacent to existing holdings due for replanting, its target of about 15,400 hectares will be much smaller than the achievement during 1976-80. Of the total, 11,500 hectares will be for rubber and 3,900 for oil palm.

740. State agencies such as SLDBs, SADCs and SEDCs will complement the role of the Federal land development agencies and are targetted to develop 217,200 hectares. With increased Federal financial assistance to these agencies, a more efficient and streamlined approach to development is envisaged. The regional development authorities comprising DARA, KEJORA, KESEDAR and KETENGAH are targetted to develop a total of 34,400 hectares, the bulk of which will be in the KESEDAR area. Due to the limited availability of suitable land for agriculture and consistent with the distribution objectives of the Government, the acreage to be developed under private sector is expected to decrease. Close cooperation between public and private sectors will continue, especially in the field of estate management.

Forestry development

741. In view of the limited forest resources available and the need to maintain a major portion of remaining forests for conservation and protective purposes, the forestry development strategy for 1981-85 will be the optimal exploitation and maximum utilization of forest resources. In this respect, a more aggressive reforestation programme as well as the establishment of plantations with quick growing species will be pursued. To complement the capacities of the State Forest Departments, Federal financing will initially be provided for the reforestation programmes and forest plantations. It is also expected that the industry will in the long run finance this programme through cess collection.

Agricultural support services

742. *Training and extension.* During 1981-85, four additional Regional Extension Training and Development Centres (RETDCs) will be established to train 4,700 personnel. An additional 30 extension sub-centres will be established to provide training for 30,000 agricultural technicians. To further meet the need for additional extension staff, the six agricultural institutes will produce 2,400 graduates during the period.

743. The Department of Veterinary Services will continue to provide training facilities both for departmental personnel and farmers. During the period, a dairy technology training centre will be established at the Veterinary Institute, Kluang, Johor. The centre will conduct training of farmers in dairying, train dairy technologists and provide facilities for regional courses. The Department will set up an information and communication

unit to organise and improve the extension services mainly to produce pamphlets and information material on various aspects of livestock production, health and other related activities.

744. The Department of Fisheries will continue to train fishermen to achieve a certain level of technical proficiency at the Fishermen's Training Institute in Pulau Pinang and at its Marine Fisheries Training Centres in Pulau Pinang and Trengganu. During 1981-85, about 400 trainees are expected to be trained at the Institute and 600 fishermen at the Centres. In addition, the Department will also provide training in freshwater aquaculture at the Inland Fisheries Training Centre at Bukit Tinggi, Pahang and the fish breeding stations at Enggor, Jitra, Machang and Tapah. A total of 6,820 fishermen and farmers are expected to be trained at these centres.

745. In-service training of forestry staff as well as training of private individuals with the objective of imparting new forestry technologies will continue to be undertaken by the Forestry Department and the UPM. It is estimated that about 3,800 people will be trained at the various forestry schools and logging training centres. In addition, the UPM is expected to train 1,000 forestry students in 1981-85 both at degree and diploma levels.

746. To meet the increased training requirements of the staff of FELDA and land development agencies, training facilities at both the Institute of Land Development and Training Centre at Trolak, Perak will be expanded to accomodate about 300 trainees. At the same time, another FELDA training school is scheduled for completion at the Keratong Complex in Pahang. The various training centres and schools will continue to provide training to clerical and technical staff as well as settlers and their families. About 90,300 people are expected to receive training within this period.

747. *Agricultural credit and subsidies.* With the establishment of more branches, the activities of BPM will be further expanded covering, among others, facilities for *padi*, tobacco production and marketing and fishing activities. It is envisaged that during 1981-85, BPM will expand its operations to cover the Krian-Sungai Manik and Seberang Prai Projects. The total allocation for BPM in the FMP is \$167 million.

748. RISDA will provide agricultural input subsidy and infrastructural facilities to encourage replanting among smallholders of 4.1 hectares and below. For this purpose, an amount of \$89.4 million is allocated. In addition, a sum of \$39 million is provided under its credit programme. To encourage self-reliance among smallholders for the betterment of their socio-economic life, RISDA will assist in the establishment of cooperatives and an amount of \$21 million is allocated as launching grant for this purpose.

749. A total of \$500 million is allocated for the urea subsidy scheme for *padi* to cushion the impact of increased costs of production. With the recent increase in the price subsidy of *padi* from \$2 to \$10 per *pikul*, the incomes of farmers will be further enhanced. The subsidy is also expected to stimulate farmers to intensify cultivation especially in abandoned land, thus increasing production to achieve self-sufficiency target. In addition, another \$32.5 million is for farm mechanization.

750. Subsidies for fishermen will continue to be provided to enable them to operate their boats efficiently with modern gear thus increasing productivity. In addition, subsidies will also be given to cover capital requirement for all types of aquaculture covering pond culture, cage culture, cockle and other shellfish culture. A total of \$88.8 million is allocated for the programme.

751. During 1981-85, the Department of Veterinary Services will continue its *pawah* and smallholder dairy schemes. Under the Coconut Smallholders Development Project, the Department will continue to implement the beef and dairy component including the establishment of a 1,200 hectare farm at Sisek, Johor and nine milk collecting centres. It is expected that about 4,500 farmers will benefit from this project.

752. *Agricultural research.* In line with the overall objective of the Government to increase income and eradicate poverty, research on the development of new or improved agricultural technologies which are suitable for adoption will continue to be emphasised.

753. MARDI will assign priorities to areas associated with technical and socio-economic constraints to increase farm productivity of the farmer and reduce costs and improve quality of crops, particularly those with import substitution or export potential. In addition, it will also gear itself towards solving post-harvest problems of storage, food handling, processing and marketing of major commodities to minimise wastage and quality deterioration as well as for the development of agro-based industries.

754. Certain shifts in research priority strategies will be undertaken during 1981-85. Research activities will be problem-oriented and location-specific, designed to produce results which are compatible with the agro-climatic and socio-economic environments of any particular region or locality. Emphasis will also be on the development of integrated farming systems involving optimum combinations of crops or crop/livestock/freshwater fisheries in a particular farm, area or zone with similar environment.

755. During 1981-85, the Department of Fisheries will expand physical facilities of the Fisheries Research Institute at Gelugor, Pulau Pinang, carry out marine fisheries resource surveys and establish a regional research institute in Trengganu. Research will be intensified to improve existing

and develop new technologies for aquaculture production especially of species with good returns. Priority will also be given to mass seed production techniques, feed formulation and preparations as well as the improvement and development of culture systems.

756. Facilities for research on livestock and poultry diseases will be further expanded. Work on the expansion and improvement of the Veterinary Research Institute, Ipoh will be completed and this will include the construction of a disease reference centre and an electron microscopic unit. In addition, laboratories will be established in important livestock districts in Sarawak.

757. In anticipation of higher demand for natural rubber in the next decade, the RRIM strategy on research and development will emphasise the implementation of the Dynamic Production Policy of natural rubber. Efforts will be aimed towards increasing productivity through improvements in agronomic practices and labour utilization, optimum use of fertilizer and effective disease control. It will also intensify the use of natural rubber through the development of new forms of rubber for specific uses and, in conjunction with the Malaysian Industrial Development Authority (MIDA), promote the growth of the rubber-based manufacturing industry.

758. PORIM will continue to accord priority to biological research as well as technical and end-use research of palm oil, aimed at increasing the proportion and performance of palm oil in edible and non-edible use. In addition, techno-economic studies will be carried out on palm oil and other oils and fats. Research on effluent treatment and disposal will also be undertaken.

759. The forestry research programmes for 1981-85 will be geared towards increasing the productivity of forests through silvicultural techniques, optimum utilization of wood waste including its potential as a source of energy, diversifying end-use and maximizing efficiency in processing. Efforts will also be directed to the greater utilization of rubber wood, coconut and oil palm trunks, bamboo and rattan.

760. *Agricultural processing and marketing.* MARDEC will expand the capacity of existing factories from 20 tonnes to 63 tonnes per day to meet the increasing demand for premium grade rubber. One SMR factory with a capacity of 40.8 tonnes per day will be constructed by FELDA while the capacity of two others will be expanded. RISDA will set up 2,000 smallholders development centres, benefitting 40,000 smallholders during the period.

761. FELDA will complete the construction of eight palm oil mills started during 1976-80 and establish 13 more new mills during the FMP. The total capacity of these mills will be 1,207 tonnes ffb per hour. In addition, it will expand the capacities of 11 of its existing mills. A sum of \$78.9 million

is expected to be expended for all its milling activities. To cater for the increased production of cocoa in FELDA schemes, another eight processing centres will be established with a combined capacity of 163.2 tonnes.

762. During 1981-85, FAMA will continue to improve the marketing system for farmers. A total of 24 cold rooms established during 1976-80 will be fully operational and help to reduce post-harvest losses of the produce marketed by farmers and hence, increase their incomes. FAMA will construct two more cocoa processing centres, one in Sabah and the other in Sarawak, coffee processing centres in Johor and Pahang, and three cocoa grading, storage and certification centres in Pahang, Sabah and Sarawak. FAMA will also establish ten agricultural marketing centres in Sabah and Sarawak. To further improve the marketing system, FAMA will expand its market extension and research programmes. FAMA will promote and support further involvement of farmers' organizations in the processing and marketing of agricultural produce.

763. During 1981-85, MAJUIKAN will continue to be involved in the wholesaling and retailing of fish to provide competition with private intermediaries to ensure reasonable prices for both fishermen and the consumers. The fish regulatory marketing schemes introduced in Alor Setar, Changloun, Ipoh, Johor Bahru, Kuala Lumpur, Kuala Trengganu and Kuching will be streamlined.

764. MAJUTERNAK will continue to implement its meat and milk marketing schemes in the context of the overall price policy of the Government. It is expected to handle 15,600 tonnes of beef and 23,700,000 litres of milk by 1985, involving a turnover of \$151.7 million. In addition, a UHT (Ultra Heat Treatment) milk processing plant will be set up at Air Hitam, Johor.

765. Public sector role in trading and processing of *padi* and marketing of rice will be further strengthened to ensure adequate returns to the farmers and stable prices to the consumers. About \$111.2 million is expected to be invested in drying, milling and warehousing facilities to meet the increased processing and storage requirements of additional *padi*. About 140,000 tonnes per year of milling and 151,200 tonnes per year of drying capacities are planned for 1981-85.

V. ALLOCATION FOR AGRICULTURAL DEVELOPMENT

766. Consistent with the NEP, large public sector development resources were allocated to the sector totalling \$8,727.58 million or 18.1% of the total public sector development allocation for 1971-80 as shown in Table 15-3. Of this amount, \$6,459.7 million or 74% was expended. The bulk of the expenditure continued to be for capital formation although during 1976-80, more emphasis was given to expanding farm support services including marketing. About \$4,849.3 million, or 75.1% of the expenditure was for new land development, drainage and irrigation as well as the replanting and newplanting of tree crops.

TABLE 15-3

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR AGRICULTURAL PROGRAMMES, 1971-85

(\$ million)

	Revised SMP allocation, 1971-75	Actual expenditure, 1971-75	Achievement, %	Revised TMP allocation, 1976-80	Estimated expenditure, 1976-80	Achievement, %	FMP allocation 1981-85
<i>Agriculture:</i>							
Integrated agricultural development project	—	—	—	254.70	198.23	77.8	892.00
Pineapple replanting	4.76	4.09	85.9	23.13	12.39	53.6	20.00
Coconut replanting	33.63	28.02	83.3	62.30	31.20	50.1	49.83
Diversification of crops	24.48	24.48	100.0	66.97	54.71	81.7	64.46
Extension and other services	39.71	39.71	100.0	62.88	20.95	33.3	79.92
Other programmes associated with agricultural development (DOA)	—	—	—	156.10	92.42	59.2	189.39
Input subsidies	—	—	—	300.00	101.80	33.9	500.00
KADA	0.30	—	—	12.09	7.36	50.9	28.00
MADA	0.40	0.40	100.0	5.75	5.72	99.5	33.00
Rubber replanting	170.46	145.62	85.4	262.83	198.23	75.4	316.66
<i>Land and regional development:</i>							
FELDA	898.60	678.41	75.5	2,014.70	1,732.71	86.0	2,040.96
FELCRA	63.68	50.96	80.0	209.98	192.80	91.8	472.08
Public Estates	—	—	—	5.42	5.42	100.0	274.50
State Land development boards	196.70	170.06	86.5	207.25	109.97	53.1	143.50
DARA	105.75	37.80	35.7	458.78	371.54	81.0	313.00
KETENGGAH	7.11	2.80	39.4	163.76	111.84	68.1	250.00
KEJORA	77.33	48.15	62.3	239.92	195.67	81.6	209.03
KESEDAR	—	—	—	115.60	24.70	21.4	250.00
Bintulu Development Authority	—	—	—	—	—	—	26.00
Kedah Regional Development Authority	—	—	—	—	—	—	3.00
<i>Drainage and irrigation</i>	257.43	217.81	84.6	778.61	554.84	71.3	860.33
Forestry	12.79	8.85	69.2	39.64	25.61	64.6	63.00
Livestock	61.77	57.04	92.3	168.75	127.22	75.4	241.00

<i>Fisheries</i>	39.05	31.78	81.4	322.63	105.84	46.8	434.62
<i>Agricultural research</i>	27.90	25.07	89.9	89.54	69.33	77.4	93.00
<i>Agricultural credit, marketing, processing and cooperatives:</i>							
Bank Pertanian	50.00	50.00	100.0	105.77	37.50	35.5	167.00
FOA	22.00	20.94	95.2	120.51	117.49	97.5	247.40
Cooperative development	0.38	0.09	23.7	25.62	9.99	39.0	50.00
FAMA	31.11	31.11	100.0	81.50	39.64	48.6	165.00
National Padi and Rice Authority	70.00	36.32	51.9	73.80	49.54	67.1	118.92
National Tobacco Board	0.54	0.54	100.00	18.67	15.52	83.2	13.00
<i>Others</i>	83.48	83.48	145.5	1.02	1.02	100.00	—
TOTAL	2,279.36	1,793.53		6,448.25	4,666.20		8,608.60

public estates allocation for the SMP was provided under *Others*.

767. For 1981-85, a total of \$8,608.6 million is allocated for the agricultural sector, an increase of 277.7% of the SMP and 35.5% over the TMP allocations. Of this amount, \$892 million or 10.4% is integrated agricultural development projects, \$3,982.1 million or 46.3% for land and regional development, \$860.3 million or 10% for drainage and irrigation and \$7613 million or 8.8% for credit, marketing and processing.

CHAPTER XVI

Manufacturing

I. INTRODUCTION

768. Manufacturing continues to play a strategic role in the achievement of the New Economic Policy (NEP). It is expected to generate substantial employment for new entrants into the labour market as well as for the underemployed, especially in rural areas. Policies for the dispersal of industries will be further pursued to promote balanced industrial growth among regions. High priority will be accorded to the establishment of export-oriented industries and the promotion of intermediate and capital goods industries. In addition, resource-based industries will be further encouraged to generate higher value added and foreign exchange earnings. The overall strategy, therefore, will be to expand and diversify the manufacturing base.

II. PROGRESS, 1971-80

Output growth

769. The share of manufacturing in Gross Domestic Product (GDP) increased from 13.4% in 1970 to 20.5% in 1980. As shown in Table 16-1, value added in the sector grew by 12.5% per annum during the decade, making it the leading growth sector in the economy. This achievement was principally attributed to increased exports as well as rising domestic demand. Among the major industries which contributed to the growth of the manufacturing sector were oils and fats, textiles and electrical machinery.

770. During the decade, there were marked structural changes in the manufacturing sector. The initial period of the decade saw the continued expansion of import substitution industries among which food manufacturing accounted for the major share. In 1970, food manufacturing accounted for 15.3% of the manufacturing sector value added but as import substitution possibilities gradually decreased towards the end of the decade, its share in total manufacturing output declined to 9.3% in 1980. Import substitution shifted to consumer durables such as household appliances, furniture and clothing as the domestic market for these goods expanded with rising standard of living and increasing rate of urbanization.

TABLE 16-1

PENINSULAR MALAYSIA: VALUE-ADDED GROWTH IN MANUFACTURING, 1970-80

	Share (%)			Average annual growth rate (%)		
	1970	1975	1980	1971-75	1976-80	1971-80
Food products	15.3	10.9	9.3	2.1	7.1	4.0
Oils and fats	6.3	12.9	14.1	26.0	17.1	22.6
Beverages and tobacco	12.1	10.9	9.9	6.9	9.8	8.0
Textiles	2.1	2.5	3.0	13.3	19.7	15.7
Wood and wood products	12.4	12.1	12.0	8.7	13.0	10.3
Paper and printing	1.0	0.9	1.0	7.6	17.3	11.1
Industrial chemicals	3.3	2.3	2.0	2.0	7.0	3.8
Chemical products	6.0	5.4	5.1	6.5	11.2	8.3
Petroleum products	4.2	3.1	3.5	3.5	17.0	8.3
Rubber products	6.7	5.5	4.5	5.5	5.6	5.6
Cement	5.4	4.9	5.2	7.0	15.2	10.0
Non-metallic	2.0	1.6	1.7	4.7	14.7	8.3
Basic metal	3.1	3.2	3.6	10.3	11.8	10.8
Fabricated metal	4.6	4.2	4.5	7.2	16.2	10.5
Electrical machinery	2.9	3.0	3.4	10.8	17.6	13.3
Transport equipment	5.3	5.2	4.9	8.6	11.6	9.7
Other manufactures	7.3	11.4	12.4	36.4	16.3	28.5
Total manufacturing	100.0	100.0	100.0	11.6	13.5	12.5

771. The latter part of the decade also saw a shift towards the development of export-oriented industries. Exports of plywood, veneer and blockboards increased at a rate of 12.8% per annum while sawn timber exports expanded at about 9.4% per annum. This development stimulated the expansion of the overall wood products industry by 10.3% per annum, accounting for 12% of the manufacturing sector value added by 1980. Rubber products industry became increasingly diversified with the development of new export-oriented rubber products such as household and surgical gloves, heavy duty tyres and medical equipment. While domestic oriented rubber tyres and footwear increased by 5.6% per annum, the specialty rubber goods expanded at a much more rapid rate. Similarly, while production of textiles for domestic market increased by 9.9% per annum, production for exports increased by 26%, resulting in an overall growth of 15.7% per annum and increasing its share in the manufacturing sector from 2.1% in 1970 to 3% in 1980. Its share of output for export market also increased from 23% in 1970 to 54% in 1980. The electrical machinery industry grew at an average rate of 13.3% per annum during the decade, reflecting continued strong demand from overseas markets. Its share in the manufacturing sector

increased from 2.9% in 1970 to 3.4% in 1980. Within the industry, electronics recorded remarkable rate of growth in exports of 69% per annum. Export value of electrical machinery including electronics accounted for 1.8% of total manufacturing sector exports in 1970 and this share rose sharply to 37.4% in 1980.

772. During the decade, the sector continued to be dominated by consumer and intermediate goods. Capital goods which grew at 9.7% per annum accounted for a small portion of the sector and was confined mainly to a narrow range of light capital goods such as transport equipment and light machinery. Despite promotional efforts to encourage greater diversification in the product-mix of the capital goods industry, little change occurred.

Investment growth

773. With favourable investment climate prevailing during the decade and in response to the promotional activities of the Government, 4,226 new industrial projects with a total proposed investment of about \$15.3 billion and a paid-up capital of about \$6.3 billion were approved. The largest amount of proposed paid-up capital was in food industry, followed by textiles and textile products, non-metallic and electrical and electronics industries. Of the total proposed paid-up capital, 34.1% constituted foreign sources, mainly from Japan, United Kingdom, Singapore, Hong Kong, U.S.A. and the Federal Republic of Germany.

774. With the objective of promoting and fostering closer economic relations, the Government concluded investment Guarantee Agreements with the Belgo-Luxemburg Economic Union, Canada, the Federal Republic of Germany, France, the Netherlands, Sweden, Switzerland and U.S.A., while negotiations were initiated for similar agreements with Australia, Austria, Norway, Rumania, Singapore, Sri Lanka and the United Kingdom. During the decade, progress was made in regional economic cooperation among ASEAN countries, as reflected in the Industrial Complementation Scheme and the ASEAN Industrial Projects of which the urea projects in Indonesia and Malaysia were in the implementation stage. To further promote industrial development in ASEAN region, joint consultations between ASEAN member countries and Australia, the EEC, Japan and U.S.A. were held to reduce trade barriers and increase flow of capital and technology.

Employment growth

775. Industrial development during the decade led to a rapid increase in employment in the manufacturing sector. The sector generated 416,600 new jobs representing 24.5% of total new employment created. Consequently, the share of manufacturing sector in total employment increased from 11.4% in 1970 to 15.8% in 1980. The textiles, electrical and electronics, food manufacturing and wood products industries together accounted for the bulk of the total number of new jobs created in the manufacturing sector.

Export growth

776. Exports of manufactured goods continued to grow from \$814 million or 15.8% of gross merchandise exports in 1970 to \$7,158 million or 25.2% in 1980, registering an annual growth rate of 24.3% during the decade. The second half of the decade recorded a slightly higher growth rate of 24.7% per annum compared with the first half of 23.8% largely as a result of the rapid growth of sawn timber exports.

777. By the end of the decade, electrical machinery, appliances and parts accounted for the largest share of manufactured exports, contributing about 37.4% followed by wood products, 27.9% textiles and footwear, 9.5% and food, 5.5%. Manufactured goods continued to be exported to traditional markets such as U.S.A., Singapore, the EEC and Japan.

778. Despite representations made by developing countries in various international fora, little progress was achieved in world trade liberalization. The concessions which were given to the developing countries were inadequate both in scope and content and confined to products which were already given concessions under the Generalised System of Preference. On regional basis, progress was achieved in trade liberalization through implementation of the Basic Agreement on ASEAN Preferential Trading Arrangements signed in early 1977. Under these arrangements, ASEAN member countries adopted tariff preferences ranging from 10% to 30% for 4,325 items on a product-by-product basis. In addition, all items with import value of less than US\$50,000 c.i.f., as recorded in the import statistics for 1978 of each ASEAN country were accorded a 20% margin of preference.

Dispersal of industries

779. In consonance with the objective of balanced growth among regions, the Government promoted the growth and dispersal of industries to the less developed regions of the country. To accelerate the pace of industrialization in these regions, infrastructural facilities were expanded and special incentives provided. Out of a total of 76 industrial estates covering about 9,650 hectares established by the end of 1980, 28 were in the states of Kedah, Kelantan, Pahang, Sabah, Sarawak and Trengganu covering an area of about 2,442 hectares. In 1970, only Kedah had an industrial estate covering an area of about 40 hectares.

780. By the end of 1980, out of 2,341 approved and implemented industrial projects, 423 were for Kedah, Kelantan, Pahang, Perlis, Sabah, Sarawak and Trengganu. Among the main types of industries approved were food processing, wood and wood products, rubber, electrical and electronic, textiles and chemicals and chemical products.

781. To further stimulate the development of export-oriented industries, Free Trade Zones (FTZs) were established. At the end of 1980, there were eight FTZs covering a total area of 434 hectares, located in Melaka (Batu

Berendam and Tanjong Kling), Pulau Pinang (Bayan Lepas, Prai, Prai Wharf) and Selangor (Sungai Way/Subang, Ampang/Ulu Klang and Teluk Panglima Garang). In addition, six other areas in Johor (Senai and Pasir Gudang), Kedah (Kulim), Kelantan (Pengkalan Chepa), Pahang (Gebeng) and Pulau Pinang (Pulau Jerejak) were designated for FTZs.

Small-scale industries

782. Small-scale industries played an important role in the development of entrepreneurship, creation of employment, mobilization of individual savings for investment, broadening of industrial base of the Bumiputera and providing inputs and supportive services for larger scale industries. During the decade, the Government promoted the development of small-scale industries through the provision of loans by public sector agencies such as the *Majlis Amanah Rakyat* (MARA), Malaysian Industrial Development Finance Corporation Berhad (MIDF), *Bank Pembangunan Malaysia Berhad* (BPMB) and *Bank Pertanian Malaysia Berhad* (BPM) as well as training, consultancy and advisory services by the National Productivity Centre (NPC) and MARA. Total loan provided by these agencies for small-scale industries during the decade amounted to \$203.5 million. The number of small-scale industries increased during the decade. These included motor workshops, welding, foundries, printing, traditional handicrafts, furniture making and wood works, food, textile and clothing, beverages and tobacco, rubber products and machinery. Some of these industries, particularly foundry and metal industries provided supportive services for such large-scale industries as electrical and non-electrical machinery and transport equipment industries.

III. PROSPECTS, POLICIES AND PROGRAMMES, 1981-85

Prospects

783. The manufacturing sector will continue to be the leading growth sector during 1981-85, but is projected to grow at a lower rate of 11% per annum compared with the growth rate of 12.5% during 1971-80. Its share in GDP is projected to increase from 20.5% in 1980 to 23.9% in 1985, overtaking the agricultural sector of 17.8% in terms of share in GDP. Sources of growth will continue to come from both external and domestic demand. Among the industries which will experience accelerated growth include resource-based, petroleum products, electrical machinery and paper and printing, all of which are projected to grow at rates greater than the average growth rate for the sector as a whole. The value of export of manufactured goods will increase further from \$7,158 million in 1980 to \$19,823 million in 1985, resulting in its share in gross merchandise export to increase from 25.2% in 1980 to 31.4% in 1985.

784. The sector will also lead in terms of employment generation. During the Fourth Malaysia Plan (FMP) period, it is expected to create 267,000 new jobs representing slightly over a third of new employment created. Manufacturing employment is projected to increase from 803,100 in 1980 to 1,070,100 in 1985, accounting for 18.0% of total employment.

Policies

785. The industrialization strategy during the FMP will continue to be geared to meet the NEP objectives. Emphasis will be given to creation of employment, development of small and medium-scale and heavy industries and participation of Bumiputera in the manufacturing sector. The strategy will also be to encourage the growth and development of resource-based as well as export-oriented industries. The policy of dispersal of industries to the less-developed states of Kedah, Kelantan, Pahang, Perlis, Sabah, Sarawak and Trengganu will also be accorded high priority.

786. Incentives will continue to be provided and reviewed to promote the manufacturing sector. While a liberal system of taxation and incentives is necessary to stimulate private investment, the Government will also provide other non-fiscal measures to accelerate industrial growth.

Public sector programmes

787. The public sector, through its various agencies, will continue to be involved in the further development and expansion of the manufacturing sector. Promotional activities will be stepped up to encourage the establishment of more industries by both domestic and foreign industrialists. The Government will continue to work closely with the banking community, chambers of commerce and industry, industry associations and other relevant organizations to promote investment. Measures will be taken to streamline administrative procedures so as to speed up project approvals and implementation. With the objective to develop the sector in an orderly and balanced manner, the Government will undertake a Manufacturing Sectoral Study during the period.

788. The period 1981-85 is expected to pose increasing challenges to the sector. Inflationary trend accelerated by the increasing price of fuel and freight charges may offset the advantages in terms of labour costs, availability of abundant raw materials and other facilities which Malaysia offers. Malaysia's trade strategies, therefore, will include, among others, direct selling of products to be undertaken through overseas and regional investment centres.

789. The Government will expand services such as dissemination of research, the provision of advisory and consultancy services, training, credit and loan facilities. Research into the end-uses of rubber and rubber wood will continue to be undertaken by the Rubber Research Institute of Malaysia (RRIM) and Malaysian Rubber Producers Research Association (MRPRA), while the Malaysian Agricultural Research Development Institute (MARDI) will continue its research activities in the utilization and processing of agricultural products, livestock and fish for industrial and commercial uses. The Forest Research Institute (FRI) will continue to further develop the use of Malaysian timber as well as of plantation crops for pulping, while the Palm Oil Research Institute of Malaysia (PORIM) will undertake research into the utilization and processing of palm oil.

790. The *Perbadanan Kemajuan Kraftangan Malaysia* (PKKM) will continue to promote the development and growth of handicraft industries. *Pusat Daya Cipta*, a product development centre, will be established during the FMP period to carry out research into production techniques, designing and other related fields to improve existing handicraft and develop new handicraft industries. Under the FMP, a sum of about \$5 million is allocated for this purpose.

791. The Standards and Industrial Research Institute of Malaysia (SIRIM) will continue to intensify its research activities aimed at the domestic application of a wide range of proven industrial technology for the manufacture of Malaysian products. It will also promote the use of Malaysian standards for commodities, processes and practices through the Certification Marking Scheme.

792. During the period, the Government will accord priority to the development of skills, technical know-how and entrepreneurship. Towards this end, the role of institutions such as Industrial Training Institutes, vocational institutes and schools, youth training centres, NPC as well as universities and colleges will be further enhanced. The private sector is also expected to complement the efforts of the Government in the development and training of skilled manpower in the manufacturing sector. In addition, consultancy and advisory services will continue to be provided by agencies such as MARA, NPC, PKKM and BPMB. Facilities for loans and credit provided by agencies such as BPMB, MARA and MIDF for the establishment and growth of the manufacturing industries will be further expanded during the Plan period.

793. Concerted efforts will be undertaken to provide training, advisory and consultancy services to small-scale industries by agencies such as MARA, NPC, PKKM, BPMB and the newly established Small-Scale Enterprises Division in the Ministry of Trade and Industry. In addition, better terms and conditions of financing and more favourable incentives will be provided to these industries to stimulate their growth and development. Under the FMP, the allocation for the development of small-scale industries provided to MARA, BPMB and BPM amounts to about \$31.8 million.

794. A total of 2,555 hectares of land in 37 new industrial estates will be developed during the FMP, principally by the State Economic Development Corporations (SEDCs), for which a sum of \$172.3 million is allocated. In addition, the Bintulu Development Authority will develop about 83 hectares of industrial land in the Bintulu area for petro-chemical, and other heavy industries for which a sum of \$11 million is provided. To complement the industrial infrastructure, the SEDCs will provide housing facilities for the industrial workers.

795. The public sector agencies such as the SEDCs, *Perbadanan Nasional Berhad* (PERNAS), Food Industries of Malaysia *Berhad* (FIMA) as well as *Petroleum Nasional Berhad* (PETRONAS) will continue to participate actively in the management and operation of manufacturing ventures. During the FMP, the SEDCs will undertake about 35 new manufacturing projects in food processing, agro-based, timber-based and building material industries. A sum of \$144.7 million is provided to SEDCs for their capital investment.

796. PERNAS will continue its activities in resource-based and other manufacturing industries including the manufacture of fertilizer, cement and telecommunication cables. A sum of \$43.7 million is allocated to PERNAS to undertake these ventures during the period.

797. A sum of \$80 million is allocated to FIMA under the FMP to expand its existing projects such as the cashew nut, oil palm and fruit plantation and canning projects as well as to undertake new food-based and related projects such as the manufacture of desserts, and development of cocoa plantations.

798. The Heavy Industries Corporation of Malaysia *Berhad* (HICOM) has been established to plan, implement and manage projects in the field of heavy industries, requiring large investment outlays and having long gestation periods. A number of projects have been identified for study, including iron and steel and non-ferrous metals, manufacture of machinery and equipment, general engineering, transport equipment, building materials, paper and paper products, and petro-chemicals. In the pipeline of projects to be undertaken by HICOM during the FMP include a sponge iron project, a sponge iron and billet project, a cold rolling steel mill and a cement plant. Studies are also being undertaken for an engineering supporting services complex, a small engine project and an aluminium reduction plant. A launching grant of \$125 million is provided to HICOM during the Plan period.

IV. ALLOCATION FOR THE MANUFACTURING, COMMERCE, FINANCE, REAL ESTATE, TOURISM AND MINING SECTORS

799. The allocation for public sector development agencies in the manufacturing, commerce, finance, real estate, tourism and mining sectors is shown in Table 16-2:

TABLE 16-2

MALAYSIA—PUBLIC DEVELOPMENT EXPENDITURE FOR MANUFACTURING,
COMMERCE, FINANCE, REAL ESTATE, TOURISM AND MINING, 1971-85

	(\$ million)					
	Revised SMP allocation 1971-75	Actual Expenditure 1971-75	(%)	Revised TMP allocation 1976-80	Estimated Expenditure 1976-80	(%)
						FMP allocation 1981-85
MANUFACTURING/COMMERCE, FINANCE, REAL-ESTATE AND TOURISM						
(i) Economic Enterprises						
PERNAS	1,235.52	1,048.25	84.8	3,370.07	2,779.28	82.5
UDA	150.00	150.00	100.0	382.53	300.50	78.6
MARA	169.00	169.00	100.0	300.00	254.60	84.9
SEDC'S	252.15	251.82	99.9	231.92	212.75	93.6
Loan to Bintulu Development Authority (BDA)	198.96	179.45	90.2	662.67	493.13	74.4
Asean—Rock Salt	—	—	—	2.00	—	—
MISC	142.81	126.52	88.6	302.89	292.90	96.7
MSE	243.02	107.23	44.1	97.43	86.64	88.9
Ministry of Trade and Industry (MICEB and small scale division)	—	—	—	2.50	2.50	100.0
MIDA	1.14	0.57	50.0	8.94	0.12	1.3
Bumiputra Investment Fund	—	—	—	500.00	425.00	85.0
Kompleks Kewangan	—	—	—	80.00	80.00	100.0
Bank Simpanan Nasional	—	—	—	6.00	6.00	100.0
Bank Rakyat	—	—	—	155.00	155.00	100.0
Bank Bumiputra	21.50	7.91	36.8	232.00	189.00	81.5
Malayan Banking-Bhd	33.51	33.51	100.0	48.00	—	—
Bank Kemajuan Perusahaan	—	—	—	120.00	95.00	79.2
Bank Pembangunan	15.00	15.00	100.0	100.00	90.00	90.0
Perbadanan Kemajuan Kraftangan Malaysia	2.00	1.68	84.0	31.19	28.14	90.3
Perbadanan Perfileman Malaysia	—	—	—	—	—	—
Syarikat Gula Padang Terap Bhd	—	—	—	77.00	43.50	56.5
Syarikat Malaysia Explosive Sdn Bhd	6.43	5.56	86.5	30.00	24.50	81.7
(ii) Petty Traders	—	—	—	30.00	18.70	62.3

CHAPTER XVII

Commerce, Finance, Real Estate and Tourism

I. INTRODUCTION

800. Commerce, finance, real estate and tourism together experienced relatively slower growth during 1971-80 compared with several other sectors in the economy. Their share in the Gross Domestic Product (GDP) declined slightly from 21.7% in 1970 to 20.8% in 1980. During the same period, employment in these sectors increased from 402,600 in 1970 to 700,600 in 1980. They are projected to grow faster during the Fourth Malaysia Plan (FMP) in line with the expansion in manufacturing and construction.

II. PROGRESS, 1971-80

Commerce

801. During the decade, expansion of commerce was mainly attributed to growth in manufacturing, agriculture, construction and mining. Employment in commerce increased from 371,100 in 1970 to 648,500 in 1980 and value added in real terms in the sector grew from \$1,633 million to \$3,295 million during the same period.

802. While the private sector continued to dominate the wholesale and retail trade, public sector participation was aimed at providing the requisite infrastructural facilities and support services as well as complementing the activities of private Bumiputera individuals and companies with a view to achieving the restructuring objective of the New Economic Policy (NEP). During the decade, *Majlis Amanah Rakyat* (MARA) assisted 98,946 traders in the field of commerce through provision of business premises, finance, training and consultancy services. The agency constructed 1,147 business premises, trained 44,836 entrepreneurs and provided consultancy services to 15,860 clients. Besides investing in commercial activities through its subsidiaries, MARA also provided loans to small-scale enterprises amounting to \$103.28 million.

803. *Perbadanan Nasional Berhad* (PERNAS), through its subsidiaries and associated companies, invested \$34 million in wholesale and retail activities in a wide range of merchandise, including consumer goods, chemical fertilisers, building materials, electronics, technical products, scientific and medical instruments, communications equipment, textiles and paper products. PERNAS *Edar* also undertook extension services to develop skills among its clients in retail and wholesale activities.

804. Business premises were provided by the Urban Development Authority (UDA), State Economic Development Corporations (SEDCs), local authorities, Federal Land Development Authority (FELDA) and regional development authorities. During the decade, these institutions provided a total of 7,138 business premises. While UDA concentrated its activities in the Federal Territory, SEDCs covered the smaller towns in the country. By the end of 1980, a total of 2,870 shophouses costing \$229 million were built by SEDCs. In addition, local authorities constructed a total of 423 units of business premises, costing \$9.49 million. *Perbadanan Niaga FELDA* focussed its commercial activities in FELDA areas to increase its network in distribution of consumer goods among the settlers. By the end of the decade, 282 units of FELDA operated business stores were in operation. Commercial activities in new growth centres were also undertaken by Pahang Tenggara Regional Development Authority (DARA) and Trengganu Tengah Regional Development Authority (KETENGAH) which together constructed 38 units of business premises.

805. During the decade, cooperatives in urban and rural areas expanded their commercial activities. The farmers' and fishermen's cooperatives were engaged in the distribution of essential commodities in rural areas. Cooperatives in urban areas participated in wholesale and retail business of a wide variety of consumer goods. The Government provided a sum of \$20.48 million in the form of loans and revolving capital to these cooperatives during the period.

Finance

Banking

806. During the decade, the assets of commercial banks increased by 21.5% per annum from \$4,460 million at the end of 1970 to \$31,187 million by the end 1980. Bank deposits rose from \$3,400 million at the end of 1970 to \$22,832 million by the end of 1980. The number of banking branch offices increased from 336 at the end of 1970 to 546 at the end of 1980. The past decade also witnessed the increasing importance of domestic banks in the financial sector. At the end of 1980, there were 21 locally-incorporated banks compared with 16 at the end of 1970, while the number of foreign-incorporated banks decreased from 22 in 1970 to 17 at the end of 1980.

807. Total bank loans and advances, including trade bills, increased at a rate of 24.2% per annum, from \$2,360 million at the end of 1970 to \$20,580 million by the end of 1980. This growth was primarily attributed to

increasing demand for credit to finance the rising level of business and investment activities. In October 1976, *Bank Negara Malaysia* introduced guidelines for commercial banks to increase the flow of credit to priority sectors and special group in the economy, namely housing, manufacturing, agricultural food production, small-scale enterprises as well as to Bumiputera community. In line with the guidelines, there was an increase in loans provided for manufacturing, real estate, construction and housing. During the decade, total credit extended to these sectors increased at 29.5% per annum from \$663 million at the end of 1970 to \$8,789 million by the end of 1980, increasing their share in total commercial bank loans and advances from 28.1% to 42.7%. There was a decline in the share of the agricultural and mining sectors in total bank loans during the decade. In the agricultural sector, it declined from 10.2% in 1970 to 7% in 1980 and in the mining sector, from 2.2% to 1%. This decline was mainly due to the relatively slower growth of these sectors in the economy. The quantum of loan given to Bumiputera community increased from \$111.7 million at the end of 1970 to \$1,856.8 million by the end of 1980. Recognizing the importance of small-scale enterprises in economic development and their growing financial needs, the Credit Guarantee Corporation Malaysia Berhad (CGC) was established in 1972 to assist small borrowers in obtaining credit from commercial banks at reasonable cost. The amount of bank lending under the CGC scheme increased from \$11.8 million at the end of 1973 to \$563.9 million by the end of 1980.

808. Merchant banking, as part of the financial system in Malaysia, started in 1970. By the end of 1980, there were 12 merchant banks operating in the country with a total paid-up capital of \$126.9 million. Deposits constituted the major source of funds for these banks, accounting for \$1,135.8 million or 56% of total resources by the end of 1980 compared with \$385.7 million or 73% at the end of 1975.

809. Loans extended by merchant banks increased from \$341.2 at the end of 1975 to \$1,551.2 million by the end of 1980. The bulk of the loans was extended to business enterprises engaged in manufacturing and general commerce. The total value of portfolio investment funds managed by merchant banks increased from \$76.9 million at the end of 1975 to \$819.8 million by the end of 1980. Merchant banks also acted as underwriters for stocks, shares and bond issues estimated at \$93.3 million during 1980.

810. To facilitate the achievement of the restructuring objective, the Government established *Bank Bumiputra Malaysia Berhad*, and acquired shares in *Malayan Banking Berhad* and *United Malayan Banking Corporation Berhad*. In addition, the Government established development banks such as *Bank Pertanian Malaysia Berhad* in 1969, *Bank Pembangunan Malaysia Berhad* (BPMB) in 1973 and *Bank Kemajuan Perusahaan* (BKP) in 1979 to promote development in agricultural, commercial and industrial

sectors. The Government also had shares in Malaysian Industrial Development Finance Berhad (MIDF) to provide long and medium-term loans for industries. In addition, the Government through its various agencies held equity in five out of 12 merchant banks.

811. The Government established BKP for the purpose of providing long-term loans to industries, particularly those engaged in shipbuilding and repair and other engineering projects. At the end of 1980, the bank had provided loans amounting to \$11.4 million, mainly for ship repair and shipyard expansion.

812. *Bank Simpanan Nasional*, established in 1974, played an important role in mobilising savings among the general population, a function formerly operated by the Post Office Savings Bank which formed an important means of financing development projects in the country. Deposits in the bank increased from \$276 million in 1970 to \$1,084.2 million in 1980.

Finance companies

813. Lending by finance companies increased from \$263 million at the end of 1970 to \$3,499.7 million by the end of 1980. The bulk of the loans was in the form of hire-purchase financing, mainly for the purchase of motor vehicles, agricultural and industrial equipment. The share of hire-purchase financing in total finance company credit remained fairly stable at about 50% during the decade. In addition, finance companies also granted housing loans to individuals as well as credit for leasing finance. In terms of direction of lending, loans to manufacturing sector as a share of total loans extended by finance companies declined from 5.9% at the end of 1970 to 4.9% by the end of 1980. The share of credit extended to the agricultural and mining sectors also declined during the decade from 20% at the end of 1970 to 13.2% by the end of 1980. Together with the commercial banks, finance companies were also required to observe *Bank Negara Malaysia* guidelines on the extension of credit to priority sectors of the economy.

Special investment companies

814. *Permodalan Nasional Berhad* (PNB), established in 1979, initiated plans for the purchase of reserved shares of approved companies in the private sector as well as shares held in trust by other Government agencies for subsequent sale in the form of unit trusts to the Bumiputera community. *Kompleks Kewangan Malaysia Berhad* (KKMB), which commenced operations in 1973, participated in unit trust activities, merchant banking, equipment leasing, discount house business and brokerage activities, insurance and foreign exchange trading and equity investment. Pilgrims Management and Fund Board, set up in 1969, represents another special investment institution. In addition to promoting and coordinating all aspects of activities connected with Muslims going on pilgrimage, the Board also utilised part of its fund for investment in corporate securities.

Insurance

815. During the decade, insurance companies rechannelled substantial funds at their disposal into the capital market, particularly long-term funds which were mobilised by life insurance companies. These funds provided additional sources of finance for economic development. The number of insurance companies decreased from 92 in 1970 to 64 at the end of 1980, comprising five life insurance, 46 general insurance and 13 composite life and general insurance companies. The number of locally-incorporated insurance companies increased from ten in 1970 to 39 in 1980, while foreign incorporated companies decreased from 82 in 1970 to 25 in 1980.

816. The total combined assets of all insurance companies increased from \$433.5 million in 1970 to \$2,233.6 million in 1980. This increase was due to the expansion of the manufacturing and construction sectors and the favourable performance in underwriting, investment and capital gains. The proportion of authorised Malaysian assets in insurance companies increased from 83.4% in 1970 to 89.6% in 1980. At the end of the decade, 24.4% of these assets was held in Government securities, 11.8% in corporate securities, 2.1% in domestic loans, 37.4% in cash and deposits, 6.7% in fixed assets, 0.03% in foreign securities and 17.6% in others.

Real estate

817. The real property market expanded during the decade. The amount of credit extended to this sector increased by 44.7% per annum from \$101.6 million in 1970 to \$4,086.9 million in 1980. During the early seventies, most of real estate transactions were handled by the private sector. Public sector programmes in this field were mainly undertaken by UDA, MARA and the SEDCs. During the decade, UDA purchased and developed 1,258 units of shops and offices for leasing to the public. These were mainly in the Federal Territory, Pulau Pinang and Johor. By the end of 1980, the SEDCs leased 1,300 units and MARA, 1,147 units, comprising mainly small business stalls. In addition, some SEDCs acted as agents for the sale of houses, office space, shops and shophouses intended for Bumiputera. The number of houses, office units, shops and shophouses covered by these activities totalled 8,000.

Tourism

818. Tourist arrivals into Peninsular Malaysia increased at 14.4% per annum from 528,000 in 1970 to 2,031,835 in 1980. This increase was partly due to promotional efforts undertaken by Tourist Development Corporation (TDC) and Malaysia Airline System (MAS), and the rise in the standard of living in other countries. However, during 1976-80, there was a slower growth of 6.8% per annum compared with about 22.6% recorded during 1971-75. This slower growth was due to higher travel costs which substantially influenced the choice of holiday locations by most tourists. Visitor arrivals to Sabah increased from 37,373 in 1975 to 78,600 in 1980 and to Sarawak, from 64,536 in 1975 to 110,400 in 1980. Foreign exchange earnings generated

by tourist industry increased from \$132 million in 1970 to \$545 million in 1980. Tourism also generated employment in related support services such as tour, travel, transportation, recreational facilities and accommodation. Employment in hotel industry alone grew from 5,200 in 1970 to 14,800 in 1980.

819. In the field of domestic tourism, local tour operators in the private sector worked closely with Government agencies such as *Keretapi Tanah Melayu* (KTM), MAS and *Masmara Sendirian Berhad* to get Malaysians to know their country better. The number of domestic tourists visiting Sabah increased from 40,989 in 1975 to 56,100 in 1980, and Sarawak from 13,829 in 1975 to 36,800 in 1980.

820. The increase in tourist arrivals into the country was also due to the availability of requisite tourist facilities. The number of hotels increased from 766 with 21,746 rooms in 1976 to 835 with 27,559 rooms in 1980, out of which 10,024 rooms were in first-class hotels by international standards. In addition, the number of tour agencies increased from 553 in 1976 to 773 in 1980 while licensed tour coaches, limousine taxis and rental cars increased from 1,061 to 1,580 during the period 1976-80. The Government introduced special provisions relating to the hotel industry in the Investment Incentive Act, 1968, including the granting of pioneer status, locational incentives and abatement of income tax for the establishment of new hotels and expansion and modernization of existing hotels. During the decade, about 150 tourist projects including hotels and holiday resorts were provided with these incentives.

821. Tourist projects undertaken by public sector agencies during the decade supplemented the activities of the private sector. TDC, on its own or in joint-venture, developed four hotels with 440 rooms of which 420 were built during the Third Malaysia Plan (TMP). These included the Club Mediteranee near Kuantan, Rantau Abang Visitor Centre and Tanjong Jara Beach Hotel in Trengganu. In addition, facilities at the 100-room Langkawi Country Club were improved. Other tourist projects undertaken by TDC during the period included the Bukit Nenas project and the Batu Caves Funicular Railway in the Federal Territory, and Duty Free Shops at Kuala Lumpur and Pulau Pinang. UDA and SEDCs also participated in the development of 36 wholly-owned and joint-venture hotels, accommodating 5,201 rooms. KEJORA developed five tourist projects in Desaru, Johor.

822. Improvements in services provided by tour agencies and guides were made possible by TDC through provision of courses and training. In addition, MARA established a Hotel and Catering School for training of skilled and semi-skilled manpower in hotel administration and management. Construction of the Hotel and Tourism Management Institute of the National Productivity Centre began during the TMP period and would be completed in early 1981.

III. PROSPECTS AND PROGRAMMES, 1981-85

Prospects

823. Value added in commerce, finance, real estate and tourism is projected to grow at a rate of 7.8% per annum from \$5,450 million in 1970 to \$7,920 million in 1985. Their share in GDP is expected to increase from 20.8% in 1980 to 20.9% in 1985. Employment in these sectors is expected to increase from 700,600 in 1980 to 881,400 in 1985, and their share in total employment will increase from 13.7% to 14.8%.

824. As in the past, the private sector will constitute the major source of growth for commerce, finance, real estate and tourism. Nevertheless, the public sector particularly through its agencies, will continue to complement the activities of the private sector, thereby, contributing further towards the expansion of these sectors. Outlined below are the public sector programmes envisaged for the Fourth Malaysia Plan (FMP).

Programmes

Commerce

825. During the FMP, facilities for commercial activities to be provided by public sector agencies will be expanded. PERNAS, MARA, UDA and the SEDCs will continue to provide business premises, credit and advisory services. The activities of PERNAS in the supply of consumer goods, agriculture inputs and building materials will be intensified. MARA will continue to build shophouses and bazaars to cater for small-scale enterprises in smaller towns, while UDA will provide business premises in selected urban locations. The SEDCs and regional development authorities will provide shops and shophouses in growth centres within their areas of operations. These agencies together are allocated \$983.6 million to implement their respective physical programmes. The newly established *Perbadanan Perfileman Malaysia* is provided with an allocation of \$17 million to finance its activities relating to production, distribution and exhibition of films.

Finance

826. Banking facilities will be expanded, particularly in the financing of priority sectors and special groups, including Bumiputera, small businesses, agricultural food production, manufacturing and construction. Public financial institutions will supplement the private institutions in investments, savings and loan activities. KKMB will consolidate its present activities, while BPMB will continue its role in provision of credit to small and medium-scale industries with particular emphasis on the manufacturing sector. The bank's extension services will be stepped up and geared towards improving the performance of small-scale enterprises. BKP will provide long-term financing in ship-building and repair, and engineering facilities. *Bank Simpanan Nasional* will continue to mobilise savings among the

population. PNB, the executing arm of *Yayasan Pelaburan Bumiputera*, will acquire shares now held in trust for Bumiputera, and subsequently distribute them through the operations of *Amanah Saham Nasional Berhad*.

Real estate

827. The development of real estate, particularly in strategic places in major towns, will be facilitated through the operation of land-bank concept. SEDCs will further acquire real properties such as office buildings and shophouses and continue to act as selling agents for properties intended for Bumiputera. During the FMP, a sum of \$585.67 million is allocated for this programme.

Tourism

828. Programmes to promote the development of tourist industry will be further expanded. By 1985, tourist arrivals into Peninsular Malaysia, Sabah and Sarawak are projected to be in the region of 2,823,000, 126,600 and 162,200, respectively. To meet the projected increase in tourist arrivals, an additional 30,485 rooms will be required. Employment is projected to grow at 5% per annum from 31,800 in 1980 to 40,000 in 1985. Foreign exchange earnings from tourism are expected at \$877 million at the end of 1985.

829. During the FMP, the development of tourist facilities in locations other than Kuala Lumpur and Pulau Pinang will be undertaken. Further extensions are being planned for the Tanjong Jara and Rantau Abang projects in Trengganu. The main focus of tourist programme of TDC under the FMP will be the development of tourist complex at Tanjong Rhu, Pulau Langkawi and the expansion of the Rantau Abang Visitor Centre in Trengganu. Under the FMP, a sum of \$40 million is provided to TDC to implement these projects. In addition, the regional authorities and the SEDCs will further expand their tourist programmes.

830. TDC will concentrate its marketing efforts in ASEAN countries, Japan, Hong Kong, Australia, New Zealand, Germany and United Kingdom in addition to exploring new market areas with potential such as West Asian countries, France and the U.S.A. Marketing and promotional activities will be reinforced by tourism sales missions to selected markets.

IV. ALLOCATION FOR COMMERCE, FINANCE, REAL ESTATE AND TOURISM

831. The allocation for public sector development programmes in these sectors is shown in Table 16-2.

CHAPTER XVIII

Mining

I. INTRODUCTION

832. The development of the mining sector requires an orderly exploitation of known mineral deposits and continued prospecting to identify new resources. The availability of mineral resources, particularly oil and gas, provides opportunity for future expansion and diversification of the economy and to enhance the process of restructuring society. During the Fourth Malaysia Plan (FMP), the strategy will focus on striking a balance between increasing revenue from the exploitation of mineral resources and the need to conserve these resources for future development.

II. PROGRESS, 1971-80

833. The mining sector accounted for 4.6% of Gross Domestic Product (GDP) in 1980 compared with 6.3% in 1970. This decline was attributable to the overall low rate of growth for the sector with the depletion of reserves in existing tin bearing areas while the impact of the oil industry was felt only towards the second half of the decade. Value added in the sector grew at 4.6% per annum in real terms, from \$778 million in 1970 to \$1,214 million in 1980. The growth during 1971-75 was 0.4% per annum compared with 8.9% during 1976-80. The higher growth rate during the latter part of the decade was due to the increase in production of crude oil. In 1970, the total export value of major minerals was \$1,177 million or 22.8% of total merchandise export receipts, rising to \$9,817 million or 34.5% in 1980, giving a growth rate of 23.6% per annum. Total employment in the mining sector remained fairly stable, increasing slightly from 88,600 in 1970 to 89,600 in 1980. Table 18-1 shows the production trend of major minerals.

TABLE 18-1

MALAYSIA: PRODUCTION OF MAJOR MINERALS, 1970-80

Volume	1970	1975	1980	Average annual growth rate (%)		
				1971-75	1976-80	1971-80
Crude oil (bpd)	17,969	97,838	280,000	40.3	23.4	31.6
Tin-in-concentrates (tonnes)	73,800	64,400	61,500	-2.7	-0.9	-1.8
Copper concentrates (tonnes)	—	13,300	113,000	—	53.4	—
Iron ore (tonnes)	4,488,000	391,680	300,000	-38.6	-5.2	-23.7
Bauxite (tonnes)	1,122,000	705,840	600,000	-8.9	-3.2	-6.1

834. During the first half of the decade, all of the *crude oil* produced came from Sabah and Sarawak. With the discovery of new oil fields during the latter part of the decade, the oil industry assumed greater importance. By the end of 1980, there were 14 oil fields in operation, three in Sabah, eight in Sarawak and three in Trengganu. Consequently, production of crude oil increased from 17,969 barrels per day (bpd) in 1970 to an average of 280,000 bpd in 1980. The export of crude oil accounted for \$164 million or 3.2% of total value of merchandise exports in 1970, rising to \$7,200 million or 25.3% in 1980. The total investments in exploration, production and terminal facilities in the oil industry increased from \$235 million in 1975 to \$1,246 million in 1980.

835. Production of *tin-in-concentrates* was 73,800 tonnes in 1970, reached a peak in 1972 at 76,800 tonnes and declined to 58,700 tonnes in 1977 with the gradual depletion of known reserves. Output rose to 61,500 tonnes in 1980, mainly attributed to higher world prices. Gravel pump mining accounted for 56% of total tin production in 1980 compared with 55% in 1970. The value of tin exports increased at a rate of 9.5% per annum, from \$1,013 million in 1970 to \$2,504 million in 1980, although its share in total value of merchandise exports declined from 19.6% in 1970 to 8.8% in 1980.

836. With the reaching of full designed production status by the sole copper mine in Mamut, Sabah, the output of *copper concentrates* increased from 13,300 tonnes in 1975 to 113,000 tonnes in 1980. The value of production increased from \$11 million in 1975 to \$113 million in 1980, attributable to the increase in volume and higher prices of precious metals, such as gold and silver, present in the concentrates.

837. With the closure of mines at Bukit Besi in Trengganu and Rompin in Pahang in 1970, *iron ore* production declined from about 4.5 million tonnes in 1970 to 300,000 tonnes in 1980. As a consequence of declining output and stagnant prices, the value of production decreased from \$98 million in 1970 to \$9 million in 1980.

838. In 1970, about 1.1 million tonnes of *bauxite* were produced from mines in Johor. As a consequence of declining overseas markets, particularly Japan, production decreased to 705,840 tonnes in 1975 and 386,500 tonnes in 1979. With the availability of new markets, however, production rose to 600,000 tonnes in 1980.

839. In consonance with the buoyant domestic construction activity during the decade, *quarrying* which involved the exploitation of limestone and other rocks, gravel, sand and clay, experienced increased level of output. More than two-thirds of the limestone output in 1980 was channelled for construction purposes and the remainder, for the production of cement and other non-metallic materials.

840. Major projects relating to oil and gas were under various stages of preparation. Construction work began in 1979 on the liquefied natural gas (LNG) project in Bintulu, Sarawak, with a planned installed capacity of six million tonnes per annum, costing about US\$1,016 million. Work was also initiated on the construction of two supply bases, one in Kemaman, Trengganu and another in Labuan, Sabah, in order to facilitate off-shore exploration and production of oil and gas. *Petroleum Nasional Berhad* (PETRONAS) carried out studies to determine the feasibility of setting up a major refinery with a capacity of 165,000 bpd and a smaller one with a capacity of 30,000 bpd. A study was also undertaken to determine the feasibility of establishing in Bintulu an ammonia-urea plant, one of the ASEAN Industrial Projects, with a capacity of 1,000 tonnes of ammonia and 1,500 tonnes of urea per day and estimated to cost US\$350 million.

841. In early 1979, a Memorandum of Understanding was signed between Malaysia and Thailand to mark an accord reached in respect of a portion of the adjacent continental shelf within the Gulf of Thailand, which is under claim by the two countries. This memorandum is concrete evidence of the true spirit of cooperation and friendship between the two countries which will not allow conflicting claims to delay or hinder the exploitation of the resources within the seabed of the area.

842. During the Third Malaysia Plan period, *Perbadanan Nasional Berhad* (PERNAS), through its subsidiary, Malaysia Mining Corporation Berhad (MMC), operated 37 tin dredges in Peninsular Malaysia, representing 71 % of the total number of dredges operating in the country. Since 1976, off-shore prospecting was also undertaken by MMC. MMC also entered into joint-ventures with various state governments to develop new areas for mining. In addition, PERNAS Mining *Sendirian Berhad* continued to operate its two gravel pump mines, one in Melaka and the other, in the Federal Territory.

843. The Perak State Economic Development Corporation (SEDC) continued to operate its two tin gravel pump mines at Kampar and four more at other locations. In addition, it participated in three dredging operations through joint-ventures, two already in operation and one under construction. The Corporation also carried out prospecting of tin and other minerals in Lahat, Kampar and at several other locations in the State.

844. Work on the formulation of the National Mining Code was initiated in 1977 to establish the mining industry on a firmer basis through the standardization of all mining enactments pertaining to prospecting, land alienation, issue and renewal of leases and conversion of mining land in the various states. A National Mineral Policy was also initiated in 1980 to encourage diversification beyond alluvial tin mining and to ensure orderly exploitation and development of non-hydrocarbon minerals.

845. The Central Belt Project was initiated in 1977 by the Geological Survey Department to prospect for tin and other metals as part of the efforts to increase tin output and to pursue the mineral diversification policy of the country. The project area covered about 31,000 square kilometres in the states of Kelantan, Pahang, Perak and Trengganu. Partly completed regional geochemical surveys conducted up to the end of 1980 indicated that the area has potential deposits of base-metals. An aero-geophysical survey over the project area was completed in 1980. In addition, preparatory works were undertaken to investigate and determine the extent of coal deposits in the Bintulu area and to explore other economic mineral deposits in the Bau and Landa-Semantan areas of Sarawak.

846. Efforts were also made to raise the quality of services and research activities in the mining industry. The Mines Department, through its Mineral Investigation Drilling Unit, carried out scout prospecting works in 13 new areas in Malay Reservations, covering an area of about 20,300 hectares. A new geotechnics laboratory was established by the Department within the Mines Research Institute of Malaysia at Ipoh, Perak, to carry out research works relating to mine safety. Other facilities at this Institute were also further improved. In addition, the facilities at the geochemical laboratory of the Geological Survey Department at Ipoh were expanded during 1977-78 in order to analyse the metal contents in the rock samples, collected from the Central Belt Project area.

III. PROGRAMMES, 1981-85

847. During 1981-85, value added in the mining sector is projected to grow by 5.8% per annum while 2,300 jobs will be generated. The exploitation of oil, gas and tin will continue to be developed as a major activity while other minerals, although of lesser importance, will continue to be mined.

848. Production of *crude oil* is projected to increase from 280,000 bpd in 1980 to 362,900 bpd in 1985. The export volume of crude oil is projected to increase by 3.0% per annum. With an increase in the export price of 16.0% per annum, the export receipts are expected to increase by 19.5% per annum. The export volume of LNG will reach 4.0 million tonnes by 1985, giving a receipt of \$3,284 million.

849. During the FMP, PETRONAS will establish a major oil refinery with a capacity of 165,000 bpd in Melaka and a smaller one with a capacity of 30,000 bpd at Kerteh, Trengganu. The LNG and the ammonia-urea plants in Bintulu, Sarawak are scheduled to be completed by the end of the Plan period. Efforts will also be undertaken to develop the downstream activities further including the production of methanol and other petro-chemicals and related activities.

850. PETRONAS will continue to play an important role in the development of the oil and gas industry and to safeguard the long-term interests of the nation. In view of expected international development in the oil industry, the agency will be strengthened to enable it to exercise its functions more effectively. This will be in line with the Government's policy of maintaining a balance between revenue maximization from oil and its products and conserving this depleting and irreplaceable natural resource.

851. Negotiations between Malaysia and Thailand regarding the constitution for the proposed Joint Authority will be continued. This Joint Authority shall assume all rights and responsibilities over the overlapping areas in the Gulf of Thailand, to be known as the Joint Development Area, but the validity of existing concessions, licences, agreements or arrangements of both countries are not to be in any way affected or curtailed. It shall exercise on behalf of both governments all powers related to functions in all exploration and exploitation activities.

852. *Tin* production during the FMP will still be obtained from alluvial deposits in existing mines as well as the proposed new mines at Kuala Langat, Selangor and Kuantan, Pahang. However, appropriate policies will be formulated with a view to encouraging lode mining, taking into account of the high risk and capital-intensive nature of such operations. Output will decrease marginally by 0.8% per annum during the FMP, from 61,500 tonnes in 1980 to 59,000 tonnes in 1985.

853. The global outlook for tin appears to be fairly promising in spite of the adverse effects of the announcement regarding the future release of the U.S. General Services Administration stockpiles on price stability. In this respect, the major tin producing countries will be adopting a common strategy for the Sixth International Tin Agreement (ITA) with the expiry of the Fifth ITA in mid-1982. Among the main contentious issues will be buffer stock size, its financing and export control mechanism.

854. The Government will intensify its efforts to undertake prospecting in Malay Reservations through the Mineral Investigation Drilling Unit of the Mines Department. PERNAS and several SEDCs will undertake new tin mining ventures and development of downstream activities.

855. Output of *copper concentrates* during the FMP will remain at the 1980 production level of about 110,000 tonnes per annum. *Iron ore* production is expected to decline from 280,000 tonnes in 1981 to 200,000 tonnes in 1985. Production of *bauxite*, however, is expected to remain at about 600,000 tonnes per annum.

856. The geochemical survey for the remaining areas of the Central Belt Project will be completed by the end of the Plan period. Detailed surveys will be undertaken to determine the extent of base metal mineralization in this area. A regional laboratory will be established in Kuantan, Pahang in

1981 to carry out testing and analytical work on rock samples for their metal contents. Exploration for coal and other minerals in Sarawak is also expected to be completed while the exploration of mineral potentials in the Grik-Baling-Kroh areas of Perak and Kedah will be undertaken. In addition, the Mines Research Institute of Malaysia at Ipoh, will be strengthened with the acquisition of modern machinery and reorganisation of functions. A Mining Technology Testing Centre will also be established within the Institute to undertake various tests in modern techniques of tin mining to ensure high productivity. A programme for manpower training in mineral resource industries will be initiated by this Institute.

IV. ALLOCATION FOR MINING SECTOR

857. The public sector development expenditure for mining is shown in Table 16-2.

CHAPTER XIX

Transport and Communications

I. INTRODUCTION

858. The provision of an efficient and balanced transport and communications system is an integral part of the development process. During the Fourth Malaysia Plan (FMP) period, various modes of transport and related infrastructural requirements will be further expanded and improved to accelerate socio-economic development of the country. The programmes for the transport sector will continue to accord priority to rural transportation and to the expansion of the inter-urban road network. In the communications sector, vital domestic and international links will be further upgraded.

II. PROGRESS, 1971-80

Road transport

859. During the decade, the number of motor vehicles in Peninsular Malaysia grew by 12.6% per annum from 669,300 in 1970 to 2,200,700 in 1980. In Sabah, it grew by 10.7% per annum from 35,000 to 97,100 vehicles while in Sarawak, it grew by 12.3% per annum from 39,500 to 125,900 vehicles. This resulted in the increase in the overall vehicle-population ratio from 72 per thousand in 1970 to 170 per thousand by the end of 1980.

860. In order to provide sufficient capacity for the rapid increase in the traffic as well as to generate development in new areas, the programme for road infrastructure was expanded. The programme included the construction and improvement of approximately 22,670 kilometres (km) of roads in Peninsular Malaysia, 4,020 km in Sabah and 2,720 km in Sarawak.

861. During the period, major road programmes undertaken were the following:

- (i) upgrading and improvement of existing road network for Routes I, II, III and other major roads in Peninsular Malaysia;

- (ii) construction of new road network in Peninsular Malaysia such as the East-West highway, the Kuala Krai-Gua Musang road, major highways in Sabah, the completion of the First Trunk Road System and the initiation of the Second Trunk Road system in Sarawak;
- (iii) construction of new development and feeder roads in regional development schemes such as Johor Tenggara, Pahang Tenggara, Trengganu Tengah and Kelantan Selatan in Peninsular Malaysia, the Kinabatangan Basin in Sabah, and Bintulu region in Sarawak;
- (iv) construction and improvement of village and security roads;
- (v) implementation of the Highway Rehabilitation Programme in Johor, Kelantan, Pahang, Perak, Trengganu, Sabah and Sarawak; and
- (vi) implementation of the Accelerated Rural Roads Programme (ARRP).

862. The construction of Kuala Lumpur-Seremban, Kuala Lumpur-Karak and Jerangau-Jabor highways was completed during the Third Malaysia Plan (TMP). The Kuala Krai-Gua Musang, Johor Bahru-Senai, Kuantan-Segamat and East-West highways were under various stages of construction at the end of 1980. The total length of these roads is about 680 km.

863. In Sabah, substantial progress was made in the construction of Papar-Sindumin, Tamparuli-Ranau and Semporna-Lahad Datu roads. In addition, about 350 km of roads were constructed and upgraded. In Sarawak, the Bintulu-Tanjung Kidurong road was completed while Beluru-Long Teru road was in an advanced stage of construction.

864. The major urban highway projects undertaken were the Kuala Lumpur Urban Transport and the Pulau Pinang Traffic Dispersal Scheme. Detailed engineering designs of inter-urban highways were completed for the stretches between Ipoh North and Changkat Jering, Ipoh South and Bidor and between Jitra and Bukit Kayu Hitam. Major bridge projects were also undertaken including reclamation works for the Penang-Mainland linkage which were started in 1980.

865. Approximately 2,394 km of development and feeder roads were constructed in Peninsular Malaysia to serve Federal Land Development Authority (FELDA) schemes, and the major regional development schemes in Johor Tenggara, Pahang Tenggara, Trengganu Tengah and Kelantan Selatan. In Sabah, designs for roads to the agricultural development areas and growth centres were finalised. In Sarawak, a total length of 222 km of development roads was completed.

866. A Highway Rehabilitation Programme, launched in 1976, involved the pavement strengthening of 1,056 km of trunk roads in Johor, Kelantan, Pahang, Perak, Trengganu, Sabah and Sarawak. By the end of 1980, 710 km were completed mainly in Johor, Kelantan, Perak and Sabah.

867. The ARRP was launched during the TMP period involving the construction of about 1,243 km of new rural roads and upgrading of 1,369 km of existing roads. By the end of 1980, about 241 km of new roads were completed and 1,000 km were upgraded. These roads not only provided social and economic services but also contributed to enhancing security measures. In addition, village roads were improved to allow for easier access in the villages.

Rail transport

868. The Malayan Railway (MR) began implementing its long-term programmes of replacement, rehabilitation and modernization in 1971. These programmes have resulted in the improvement of the overall performance of the railway, particularly with regard to passenger traffic, which showed an upward trend, increasing from 5,174,900 passengers in 1970 to 7,000,000 in 1980. In terms of passenger-kilometres, this showed an increase from 620 million to 1,356 million. Freight traffic showed an increase from 1,202 million tonne-kilometres in 1970 to 1,637 million tonne-kilometres in 1980. Substantial investment was also made by the MR in rolling stock such as goods wagons, passenger coaches and shunting locomotives as well as in the acquisition of new plants and machinery. About 230 bridges were also rehabilitated to meet the operational requirements of trains with heavier loads running at faster speed. The continued growth in rail traffic, especially for bulk cargo and long distance passenger traffic, enabled the MR to meet its operating costs while providing an essential service to meet the transportation needs of its users.

Sea transport

869. During the decade, the development of ports and the promotion of shipping industry were undertaken to cope with the rapid growth in traffic and other related maritime activities. The increase in traffic was particularly significant with the rapid growth in Malaysia's international trade. By the end of 1980, a total of 16,200,000 tonnes of cargo was handled by the ports in Peninsular Malaysia compared with 7,900,000 tonnes in 1970, showing an annual increase of 7.4%. In Sabah, a total of 2,800,000 tonnes was handled in 1980 compared with 600,000 tonnes in 1970 while in Sarawak, 2,900,000 tonnes was handled in 1980 compared with 1,600,000 tonnes in 1970, showing an annual increase of 16.6% and 6.1%, respectively.

870. *Ports* A major expansion programme for Port Kelang was undertaken during the decade to enable it to cope with the increased traffic generated by the country's rapid economic growth. The programme included the expansion and extension to the North Kelang Straits by about 2,680 metres of wharves, provision of container facilities, construction of a Roll on-Roll

¹ In this Chapter, figures for both the port throughput and the port handling capacity were calculated in freight tonnes.

off (Ro-Ro) ramp and specialised facilities for dry bulk terminal as well as on-shore infrastructural facilities. As a result of this programme, Port Kelang increased its capacity to handle traffic from 4,400,000 tonnes in 1970 to 8,000,000 tonnes in 1980 and its container throughput increased from 41,900 Twenty Foot-Equivalent Units (TEUs) in 1974 to 134,500 TEUs in 1980.

871. The expansion programme for Penang Port included the construction of a bulk cargo terminal, a vegetable oil jetty, a container terminal and Ro-Ro facilities. The Port also acquired container cranes, tug boats, and passenger launches. As a result of this expansion programme, traffic through Penang Port increased from 3,500,000 tonnes in 1970 to 5,600,000 tonnes in 1980, and container throughput increased from 8,900 TEUs in 1975 to 43,500 TEUs in 1980.

872. The Johor Port was completed in 1977 with facilities consisting of a twin berth oil jetty for liquid bulk cargo, two ocean berths and a coastal berth for dry cargo. The oil jetty has a handling capacity of 1,600,000 tonnes a year, while the facilities for dry cargo have a combined annual capacity of 900,000 tonnes. The overall sea-borne cargo handled through Johor Port increased from 1,100,000 tonnes in 1977 to 2,200,000 tonnes in 1980.

873. The Kuantan Port was completed in 1979 with facilities for liquid, bulk and general cargo. Due to technical deficiencies, it was only opened for partial operation in 1980. The Government has taken measures to determine and rectify the deficiencies.

874. The expansion programmes of Kota Kinabalu and Sandakan ports were completed in 1976 and 1977, respectively. As a result, the handling capacity of Kota Kinabalu Port increased from 311,000 tonnes to 953,000 tonnes while that of Sandakan Port from 335,000 tonnes to 624,000 tonnes. With the facilities, both ports were able to cope with the increasing volume of cargo and reduced delays and congestion.

875. The construction of a new port in Bintulu, Sarawak began in 1979 to cater for both general and bulk cargo traffic as well as specialised handling of liquified natural gas (LNG), ammonia and urea. The expansion of Kuching Port was completed in 1975, increasing the overall capacity of the port from 300,000 tonnes to 650,000 tonnes while that for Sibu Port was completed in 1977, thereby increasing the capacity of the port from 175,000 tonnes to 450,000 tonnes.

876. *Shipping.* The Malaysian International Shipping Corporation (MISC), the national shipping line, continued its fleet expansion and diversification programmes during the decade. By the end of 1980, it owned and operated a diversified fleet of 31 vessels with a total tonnage of 813,733 deadweight tonnes comprising six conventional liner ships, two third-generation container ships, two fully cellular container ships, two container feeder vessels,

three parcel tankers, one ore/oil carrier, two woodchip carriers, eight bulk carriers and five coastal ships. In 1971, it had a fleet of only six vessels with a tonnage of 65,000 deadweight tonnes. In terms of its carriage of Malaysian cargo, MISC increased its market share by 4% for liner, 2% for dry bulk and 2% for tanker.

877. During the period, domestic shipping was largely operated by foreign registered ships. In order to confine domestic shipping to locally registered vessels, the Government introduced the Cabotage Policy in early 1980, the implementation of which is to be in stages. Up to the end of 1979, about 60% of the domestic shipping tonnage in the country was still dependent on foreign ships. Since the inception of the Policy, the Domestic Shipping Licensing Board (DSLBB) which is the authority responsible for issuing licences, issued licences to more Malaysian registered vessels than foreign owned vessels.

878. The coastal liner trade discharged at ports in Sabah and Sarawak from Peninsular Malaysia, amounted to 1,400,000 tonnes of the total sea-borne trade of 2,700,000 tonnes in 1980. In 1970, it constituted about 800,000 tonnes of the total of about 1,700,000 tonnes. The coastal liner trade into Sabah and Sarawak, therefore, formed about 47% and 52% of the total sea-borne trade in 1970 and 1980, respectively.

879. In line with the Government's long-term objective of making Malaysia a maritime nation, a comprehensive study was initiated in the latter part of 1980 to determine both the future shipping requirements of export and import trades and new programmes and policies to promote the growth of the shipping industry.

880. *Marine.* To ensure the safety of marine transportation, the Government improved both the preventive and enforcement measures with the introduction of the Traffic Separation Scheme in the Straits of Melaka, installation of additional navigational aids and improvement to security arrangements.

Air transport

881. The decade marked a rapid growth in the development of civil aviation and air transportation in the country. In Peninsular Malaysia, passenger traffic increased from 816,000 in 1970 to 3,531,300 passengers in 1980, showing an annual growth of 15.8%. In Sabah, it increased from 554,800 to 1,682,000 passengers and in Sarawak from 351,000 to 1,293,700 passengers, giving an annual growth of 11.7% and 13.9%, respectively. Freight traffic in Peninsular Malaysia increased from 3,500 tonnes in 1970 to 35,200 tonnes in 1980, registering an annual growth rate of 26%. Freight traffic in Sabah during the same period increased from 5,070 to 9,106 tonnes and in Sarawak, from 2,186 to 7,500 tonnes giving an annual growth of 6% and 13.1%, respectively.

887. The microwave trunk telephone network was extended in Peninsular Malaysia to connect all the main towns. In Sabah and Sarawak, a new microwave trunk telephone network was also established to link all the main towns. Peninsular Malaysia was linked to Sabah and Sarawak via satellite and the troposcatter system and by the recently completed submarine cable between Kuantan and Kuching, enabling the operation of a nation-wide Subscriber Trunk Dialling (STD) by the end of 1980. This development also facilitated the expansion of the television broadcasting services throughout the country. Direct telecommunications links were established to various countries through the use of satellites and submarine cables. The establishment of these direct links facilitated the introduction of a limited International Subscriber Dialling (ISD). Together, the ISD and the STD assisted the operations of the newly established Kuala Lumpur Commodity Exchange. At the regional level, Pulau Pinang-Medan Cable Project and the ASEAN cables linking Thailand, Malaysia and Singapore, were in various stages of implementation.

888. Telex services were expanded during the period as a result of the automation of the services and in response to growing domestic and international demand. This progress led to an increase in the number of telex subscribers from 183 in 1970 to 3,500 in 1980.

Postal services

889. The main programmes undertaken by the Postal Department during the decade included the establishment of a total of 188 mobile post offices and 1,406 postal agencies to serve the rural areas. A total of 184 new post offices were constructed while the rate of mail conveyance was improved principally with the addition of new vehicles and staff. By the end of 1980, the number of mail traffic handled was 1,260 million compared with 590 million in 1970. The Department also provided services to other agencies such as the *Bank Simpanan Nasional*, Telecoms and Broadcasting departments as well as the National Electricity Board (NEB).

Meteorological services

890. The Meteorological Department continued to provide a variety of services through the establishment of additional storm warning radars and meteorological/seismological stations. Among the principal users are the civil aviation, agricultural research, education and other sectors. The Department also started marine meteorological services for shipping, fishing and oil exploration activities.

III. PROGRAMMES, 1981-85

Road transport

891. The road investment during the Plan period is designed for the following programmes:

- (i) expansion of highway network to meet the projected growth in traffic;
- (ii) construction of new development and feeder roads to open up new areas; and
- (iii) improvement to rural and village roads to support *in situ* agricultural programmes so as to enhance socio-economic well-being and facilitate security measures.

892. In addition to the various projects continued from the TMP, new projects will be implemented in the FMP. These projects include the Penang-Mainland linkage and inter-urban highways from Bukit Kayu Hitam to Johor Bahru. The construction of these highways will be undertaken by the newly established Highway Authority Malaysia which will be responsible for their administration and maintenance including the collection of tolls. The Authority will ensure that the construction of the new highways, will be expedited to cope with the increased level of traffic along the major towns in the western corridor of Peninsular Malaysia. The completion of these projects by 1986 will enable greater mobility and reduce travel time as well as enhance road safety.

893. The programme for the upgrading and improvement to existing roads involves the widening of road carriageway to 7.3 metres wide and where possible, the construction of dual carriageway. The programme will include the following:

- (i) improvement of Kuala Lumpur-Seremban Expressway including the construction of eight new interchanges;
- (ii) extension of the six-lane dual carriageway of Kuala Lumpur-Petaling Jaya highway to the Kuala Lumpur International Airport interchange;
- (iii) improvement and widening of the Grik-Kuala Kangsar road;
- (iv) improvement of the Ipoh-Lumut road;
- (v) improvement of the Kuantan-Kemaman-Dungun road;
- (vi) construction of a dual carriageway from Senai to Johor Bahru Airport; and
- (vii) construction of the Johor Port access road.

894. Rapid urban population increase and an excessive concentration of major urban functions and facilities in the central business districts of urban centres together with intensified motorization, has produced an acute

transportation demand in the urban centres. To minimise the level of congestion in the two major city centres of Kuala Lumpur and George Town, projects for the improvement of the urban traffic system, which include the Kuala Lumpur-Petaling Jaya and Pulau Pinang traffic dispersal schemes, will continue to be implemented. A similar project is also being initiated to relieve the traffic congestion in Johor Bahru. A major issue in these projects is the development of public transport and measures to restrain the use of private vehicles in the central business districts.

895. The construction works for the East-West highway and the Kuala Krai-Gua Musang road are expected to be completed by the end of 1981 and 1982, respectively. In addition, the supporting road systems to the East-West highway and the Gua Musang-Kuala Lipis-Raub-Bentong road will also be undertaken. The construction of the West Coastal Road-Sungai Perak-Lumut road links, which will connect Kg. Kayan to Sitiawan and Sabak Bernam-Telok Anson, is expected to commence in 1981. Included in the programme is the continuation of the rehabilitation of roads in Johor, Kelantan, Perak, Pahang, Trengganu, Sabah and Sarawak as well as roads in Kedah, Negeri Sembilan and Pulau Pinang. A total of 1,093 km of roads is expected to be rehabilitated.

896. In Sabah, the priority is to complete the paving of all the existing gravel roads connecting the major towns and to construct new roads linking up minor population centres. About 350 km of existing gravel and new roads will be reconstructed. Construction works on the Semporna-Lahad Datu, Tamparuli-Ranau and the Papar-Sindumin roads continue to be undertaken. A programme for the reconstruction and improvement of trunk roads such as the stretches from Berungis to Kota Belud, Lahad Datu to Sandakan and Sandakan to Telupid will also be initiated during the Plan.

897. In Sarawak, priority will be given to the completion of the First Trunk Road System which forms the spinal road of the state-wide road network. Under the programme, the stretch of road between Ulu Batang Mukah and Bintulu will be undertaken. In addition, improvement and bitumen surfacing of various sections of the Miri-Bintulu road will be stepped up. Work will commence on the Second Trunk Road System including the link from Long Lama to Limbang and from the Bintulu region to the interior which will provide access to the proposed hydro-electric project at Pelagus. Other roads such as the Bintulu-Tanjung Kidurong, Kuching-Bako, and Batang Ai trunk roads leading to important development projects will be further developed. The Kuching bypass and the first eight km of the Miri-Bintulu road will be upgraded to four lanes.

898. A new set of criteria has been developed for the purpose of selecting and constructing new rural roads during the FMP. Included in the criteria are the population per km of the proposed roads, the percentage of small-holding and the construction cost per km. The use of these criteria will

ensure better utilization of resources for rural roads programme. During the FMP, a total of 1,407 km of rural roads will be constructed mainly in the less-developed states. About 1,078 km of development and feeder roads will be constructed to serve the regional development areas in Johor, Kelantan, Pahang and Trengganu. In addition, 60 km of access roads to the integrated agricultural development areas and growth centres in Sabah will be implemented.

899. The improvement programme for the *kampung* roads will also be continued during the FMP. The construction of these roads will be based on both economic criteria and social needs so as to facilitate the marketing and processing services for agricultural produce and to provide better access to social amenities.

900. The Government is concerned with the increasing rate of motor accidents on the highways. As a step towards reducing the number of these accidents, necessary data will be collected and analysed while studies on road safety measures and axle load effects on roads will be conducted. Similarly, to reduce traffic congestion at railway level crossings, the existing level crossings in Peninsular Malaysia will be investigated with a view to replacing them with overhead road/rail bridges.

901. A study will be initiated to assess the capability and capacity of both the public and private sectors in the road construction activities. The study, among others, will examine in-depth information relating to the level of demand and the availability of supply of construction materials, technical and manpower capacities and will recommend measures to improve the planning and implementation capacity in the road construction industry as a whole.

902. In the field of training, the Public Works Department will continue with on-the-job training for personnel at the professional, sub-professional and operation levels. A training school for this purpose will be established in Bangi.

Rail transport

903. During the Plan period, both the rail passenger and freight traffic are projected to grow from 1,410 million passenger-kilometers and 1,737 million tonne-kilometres in 1981 to 1,649 million passenger-kilometres and 1,963 million tonne-kilometres in 1985, respectively. To cater for traffic growth and the continuing need for expansion and modernization, the Railway will undertake the following programmes:

- (i) purchase of rolling stock;
- (ii) renewal and doubling of tracks and rehabilitation of bridges;
- (iii) provision of rail links from Tampoi to Johor Port, from Sungai Way to Kuala Lumpur International Airport and from Senai to Johor Bahru Airport;

- (iv) modernization of the Sentul Workshop;
- (v) remodelling of the railway marshalling yard at Brickfields and the construction of institutional quarters and stations; and
- (vi) modernization of signalling and communications and conversion of open level-crossings to automatic gate-crossings.

904. The rail links to Johor Port will facilitate the movement of passengers and cargo traffic from Tampoi to Pasir Gudang, serving both the Johor Port and the Malaysian Shipyard Engineering Berhad. The railway marshalling yard at Brickfields will be rearranged and expanded to improve locomotive and wagon utilization, thereby reducing delays to passenger and freight trains. The rail link between Sungai Way and Kuala Lumpur International Airport is designed to facilitate the transportation of aviation fuel.

905. The MR will also purchase container handling equipment and provide associated facilities to meet the requirements of the growing container traffic handled by the MR.

906. The training programme for the staff of the MR will continue to be undertaken during the period. The main aspect of the programme is the three-year apprenticeship training that produces skilled railway technical workers. A two-week induction course is also conducted for all new workers apart from various in-service and on-the-job training. For the management level, a separate training programme has been designed, covering courses which include management development and administration conducted jointly by the MR and the *Institut Tadbiran Awam Negara* (INTAN).

Sea transport

907. During the Plan period, the total cargo tonnage expected to be handled by the ports in Peninsular Malaysia is estimated to increase from 16,200,000 tonnes in 1980 to 25,500,000 tonnes in 1985, giving an annual growth of 9.5%. In Sabah, the total cargo tonnage is expected to increase from 2,800,000 tonnes to 4,900,000 tonnes while in Sarawak from 2,900,000 tonnes to 6,500,000 tonnes, giving an annual growth of 11.8% and 17.5%, respectively. Based on the growth in traffic, programmes for effective utilization of the existing facilities together with expansion and improvement programmes of the ports will be accelerated. In addition, the expansion programmes for MISC will be continued during the Plan period, to keep pace with the increasing demand for services and technological changes in the shipping industry.

908. *Ports.* With the completion of three general cargo wharves, dolphin wharves and dry and liquid bulk terminals, the capacity of Port Kelang will be increased to 13,900,000 tonnes by the end of 1985. The expansion programme of Port Kelang, involving the construction of new facilities at

Pulau Lumut, will also be implemented to meet the increased demand for additional facilities. The completion of the facilities is expected to generate further development in the surrounding areas.

909. The capacity of Penang Port will be increased to 12,900,000 tonnes with the implementation of a container project at North Butterworth and an additional berth to the existing bulk cargo terminal. Dredging of the North Channel will also be undertaken. The container project includes a container terminal of two berths, Ro-Ro facilities, and container handling equipment. The construction of an additional berth to the existing bulk cargo terminal is to provide the terminal with greater handling capacity and separate handling facilities for edible and non-edible commodities. The dredging works involve the deepening of the channel from 7.4 to 11.8 metres to accomodate bigger container and bulk cargo vessels.

910. The expansion of Johor Port, scheduled for completion by 1983, comprises the extension of the existing marginal wharf to provide for an additional multi-purpose ocean berth for general cargo as well as containers and two berths for dry bulk cargo. The completion of these facilities together with the lighterage wharf, dangerous cargo jetty and other ancillary on-shore facilities will increase the total cargo handling capacity of the port from 3,500,000 tonnes to 7,600,000 tonnes. In addition, further modernization and replacement of equipment will be undertaken.

911. Kuantan Port will be fully operational when repairs to the structural defects, mainly at dry cargo berths and transit sheds, are completed. The port facilities consist of one multi-purpose berth, three general cargo berths, a palm oil berth and a mineral oil berth. The phase I work on the port commercial complex, providing supporting facilities to the port, will also be implemented.

912. The construction of the Petroleum Supply Base in Kemaman, Trengganu to meet the requirements of petroleum exploration activities is expected to be completed by 1982. The project consists of terminal shore facilities, a harbour basin of 120 metres width and an approach channel of 9 metres draught, sufficient to accommodate supply ships of 5,000 deadweight tonnes.

913. In Sabah, the construction of an industrial jetty complex at Sepangar Bay and expansion of Tawau Port are scheduled for completion by 1982. The industrial jetty complex will provide facilities mainly for the handling of bulk cement, mineral and palm oil. The expansion of Tawau Port will include the construction of four additional berths, a new transit shed and ancillary port facilities. The expansion of Kota Kinabalu and Sandakan ports include the extension of wharves, construction of container freight stations and installation of container handling equipment. With the expansion, the capacity of Kota Kinabalu Port is expected to increase from 900,000 tonnes to 2,500,000 tonnes and Sandakan Port from 600,000 tonnes to 1,200,000 tonnes.

914. In Sarawak, the new port in Bintulu will provide not only berthing facilities for general and bulk cargo but also specialized facilities for handling LNG, ammonia and urea. The facilities comprise a bulk cargo berth, two general cargo berths and a Ro-Ro ramp to serve the growing export and import traffic. The LNG harbour, which will accommodate LNG vessels of 70,000 deadweight tonnes, will provide facilities for the export of LNG, ammonia and urea. The port, which is scheduled to be completed by the end of 1982, is expected to handle 1,700,000 tonnes of throughput in 1983, including LNG. This traffic is projected to increase to 3,200,000 tonnes by the end of 1985. On completion, the port will act as a catalyst for the accelerated development of the region.

915. The phase II expansion of Kuching Port, involving the construction of an additional wharf and transit sheds, will also be implemented during the Plan period. The expansion will increase the capacity of the port from 700,000 tonnes to 1,300,000 tonnes. Sibu Port will also be provided with new storage facilities, thereby improving its operational efficiency.

916. *Shipping.* The activities of MISC will be expanded and diversified in order to increase its participation in both domestic and international shipping. An additional fleet of 46 vessels is estimated to be added to the current fleet of 31 vessels to reach a target of 2,500,000 deadweight tonnes by the end of 1985. The expansion will be in container, Ro-Ro tanker, bulk and coastal services. Another priority area of MISC's involvement will be in the shipment of LNG scheduled to commence in 1983. The delivery of the five LNG carriers will be made progressively during 1981.

917. *Marine.* In order to enable the Marine Department to play a more effective role in ensuring the safety of marine transportation and the marine environment, a number of projects will be implemented during the Plan period. In Peninsular Malaysia, the main projects include the purchase of additional dredger, speedboats, launches, communications equipment, replacement of jetties and the construction of institutional quarters. In Sabah, the projects include the purchase of hydrographic equipment, improvement to lighting, navigational aids and the workshop at Pulau Berhala. In Sarawak, the projects include the construction of the marine complexes in Bintulu, Sejingkat and Sibu and the purchase of vessels.

918. Training programmes for port personnel will be provided by the proposed National Ports Training Centre in Port Kelang and the Sabah Ports Training School in Kota Kinabalu. The primary objective of the National Ports Training Centre is to undertake centralized training of port

personnel at all levels in order to ensure that a standardized and uniform system of training is provided to meet the needs of the various ports in the country. The Sabah Ports Training School will provide facilities for the training of personnel in the operational categories. The Maritime Training Centre in Melaka and the *Politeknik Ungku Omar* in Perak will provide training in shipping and marine services. The Maritime Training Centre will continue to provide training courses for ratings, deck officers and marine engineers to meet the needs of not only the public sector but also the private sector in the shipping industry. Meanwhile, the *Politeknik Ungku Omar* will continue to offer courses in marine engineering as well as other aspects of engineering training. With the implementation of the above training programmes, the management and technical capabilities of personnel will be upgraded to provide better performance in the industry.

Air transport

919. During the FMP, the passenger and cargo traffic is expected to grow at a rate of 10% and 15%, respectively. The international passenger traffic growth is expected to be faster than that of domestic traffic. To meet this growth, the development programme for civil aviation will include expansion and improvement of airports; provision of navigational aids, installation of additional facilities for the Flight Information Region (FIR) and establishment of a Civil Aviation Training College. In terms of fleet development, MAS will continue to acquire more aircraft to improve further the capacity and frequency of both domestic and international services.

920. The phase I expansion of Kuala Lumpur International Airport is to improve the capacity and facilities in order to accommodate the rapid growth in air traffic. The works, continued from the TMP, involve the extension to domestic and international parking apron, renovation to existing terminal building, construction of a second terminal, a new cargo complex, passenger loading bridges and overhead taxiway and associated facilities. A study on phase II expansion programme for the airport will also be undertaken.

921. Kota Bharu Airport will be developed to cater for wide-bodied aircraft and is expected to be completed in 1983. Johor Bahru Airport will be upgraded as a regional air cargo centre, while sufficient facilities will be provided to Kuala Trengganu Airport to cater for short-range jet aircraft.

922. In Sabah, works for the expansion of Sandakan Airport will commence in 1981 to cater for the medium-range aircraft. The expansion of Kota Kinabalu Airport, involving the construction of a terminal building, cargo complex, fire station and other associated facilities, is expected to be completed by 1983. In Sarawak, new airports at Sibu and Bintulu, catering for

short and medium-range aircraft, and at Limbang will be constructed. The expansion of Kuching Airport, involving the construction of a new terminal building, cargo complex and other ancillary facilities, is programmed for completion by 1982.

923. The continuing growth in passenger and air traffic has led to congestion at a number of airports. To improve the situation, the Government initiated a review of the national airport plan with a view to providing a coordinated systems approach to airport infrastructural development in the country. The study will not only cover all airports and aerodromes which are currently served by scheduled air services but also identify townships requiring rural air services. The study will also undertake the preparation of airport master plans for Ipoh, Pulau Langkawi and Tawau.

924. Navigational aids, communications and radar facilities will be further improved in order to ensure that the air traffic services in the country will be able to provide the necessary services in the Malaysian FIR. During the FMP, the country will assume full responsibility over the air space with the take-over of the southern portion of the Kuala Lumpur FIR.

925. MAS is expected to increase its fleet to cater for the projected growth in its passenger and cargo traffic. Along with this fleet expansion, MAS will continue its efforts to consolidate its operation in existing routes and establish new destinations overseas. For the domestic services, it will continue to meet the needs of the growing domestic passengers by providing direct services and additional frequencies. It will also develop cargo along the same lines as passenger traffic by promoting Kuala Lumpur, Penang and Johor Bahru airports as the gateways and transshipment centres for international air freight.

926. In order to enable MAS to expand its services overseas, the Government will continue to seek traffic rights through bilateral negotiations with the foreign countries concerned. At the same time, efforts will be made to improve the present terms and conditions of the existing agreements.

927. Rural air services in Sabah and Sarawak will be expanded not only by providing more rural aerodromes but also by introducing bigger STOL (short take-off and landing) aircraft. In Peninsular Malaysia, MAS will also provide additional frequencies and capacity improvements on these services.

928. The Civil Aviation Training Centre at Subang provides basic training for air traffic control officers. However, due to increased responsibility arising from rapid development in civil aviation and air traffic control over the

country's air space, the present training centre will be expanded. A new Civil Aviation Training College will be established in the FMP to cater for the training needs of technical and management personnel required to operate and maintain the civil aviation services. The civil aviation security training school, to be located in Pulau Pinang, will provide intensive training for security personnel.

Telecommunications

929. Telecommunications programmes include the improvement and extension of local subscribers' network and automatic exchanges as well as trunk and junction network to fulfil future needs of the country. The target is to install 1,200,000 telephones and to provide telex services for 15,000 subscribers by 1985. To meet this target, computer-controlled SPC (Stored Programme Control) exchanges will be installed to increase the existing capacity of 667,000 telephone links to about 1,900,000 in 1985. The automatic telephone network will also be extended to cater for the need of the rural population. The domestic telex services will be improved and more public telephones installed. To improve the capacity and efficiency of the Telecommunications Department, the billing system for the telephone and telex services will be decentralised and further computerised. It is anticipated that by the end of 1985, the number of applicants in the waiting list for telephones will be reduced to 10% compared with about 23% in 1980.

930. The external services programmes include the expansion of the ISD facilities to be made available to more people in the country. The Pulau Pinang-Medan and the Thailand-Malaysia-Singapore submarine cables system, expected to be completed by the end of the Plan period, will complement the international facilities and services currently being provided by the satellite earth stations at Kuantan and Melaka. This system, together with the proposed installation of a new international gateway telephone exchange, will improve the communications system between Malaysia and countries throughout the world, especially with the ASEAN region.

931. Training programmes for telecommunications staff are being conducted at the Training Centre in Kuala Lumpur and at the sub-centres in Kota Kinabalu and Kuching. The Centre provides basic on-the-job and in-service training for technicians and operative staff as well as for middle level management groups. To cater for the increasing training needs, three more training sub-centres will be set up in Kuala Trengganu, Melaka and Taiping.

Training for the senior level management is provided at INTAN and overseas. A new training centre will be established at Bangi during the Plan period to meet the training requirements of engineers as well as senior management staff.

Postal services

932. The postal services programmes will be geared towards meeting the long-term targets of establishing a post office for every area with a population of over 3,000 and to have a postal agency for areas between 1,000 and 3,000 population. The postal programme will be designed to accomplish the mail delivery service within 24 hours between major towns in Peninsular Malaysia and within 48 hours between major towns in Sabah and Sarawak and the Peninsular. The FMP projects of the Postal Department include construction of 116 new post offices and 37 replacement post offices, the construction of a Postal Training Institute and completion of the General Post Office and Postal Headquarters in Kuala Lumpur. In addition, the postal programmes will also include the establishment of 357 postal agencies and the launching of 104 mobile post offices throughout the country.

933. The Postal Training School at Kuala Lumpur provides training for clerks, postmen and supervisors while senior officers are being trained at INTAN, National Productivity Centre (NPC) as well as overseas. During the Plan, two new training centres will be established at Bangi and Kota Kinabalu and a total of 5,800 postal staff is expected to be trained.

Meteorological services

934. The programmes for meteorological services include the establishment of additional observatory stations and the introduction of modern electronic equipment. In addition, a storm warning radar will be installed in Sarawak and one seismological station each will be installed for Sabah and Sarawak.

IV. ALLOCATIONS FOR TRANSPORT AND COMMUNICATIONS SECTOR

935. The allocations for transport and communications programmes during the FMP period is shown in Table 19-1. As indicated, the allocation for the transport sector amounts to \$4,116.1 million, of which \$2,468.1 million or 60.4% is provided for the road development programme. The allocation for the communications sector amounts to \$1,523.52 million, of which \$1,399.5 million or 91.8% is provided for the telecommunications programme. In addition, the Telecommunications Department is expected to supplement this amount from its own internally generated funds. The table also shows the financial performance over the decade within which a total of \$4,076.7 million was expended for the transport sector and \$1,327 million for the communications sector. The overall performance achieved is estimated at about 72.7%.

TABLE 19-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR
TRANSPORT AND COMMUNICATIONS PROGRAMMES, 1971-85

(\$ million)

	Revised SMP Allocation 1971-75	Actual Expenditure 1971-75	Achievement %	Revised TMP Allocation 1976-80	Estimated Expenditure 1976-80	Achievement %	FMP Allocation 1981-85
<i>Transport</i>	1,562.06	1,233.92	79.0	4,462.99	2,842.75	63.7	4,116.07
Highway Authority Malaysia	—	—	—	—	—	—	500.00
PWD Roads	696.69	663.14	95.2	2,038.73	1,576.94	77.3	1,045.51
Rural and security roads	35.00	34.67	99.0	556.73	188.52	33.9	772.56
Railways	89.99	29.84	33.4	350.47	168.35	48.0	300.00
PWD plants and equipment	90.61	72.85	80.4	167.63	143.60	85.7	150.00
Ports	327.96	214.59	65.4	826.63	548.36	66.3	660.00
Marine services	39.38	36.99	93.9	32.46	8.72	26.9	76.00
Civil aviation	282.43	181.84	64.4	490.34	208.26	42.6	612.00
<i>Communications</i>	155.42	174.93	112.6	1,252.71	1,152.08	99.2	1,523.52
Telecommunications	130.70	152.05	116.3	1,200.00	1,112.67	92.7	1,399.52
Postal	20.50	18.11	88.3	41.86	31.77	75.9	104.00
Meteorological services	4.22	4.77	113.0	10.85	7.64	70.4	20.00
TOTAL	1,717.48	1,408.85	82.0	5,715.70	3,994.83	70.0	5,639.59

CHAPTER XX

Energy and Utilities

I. INTRODUCTION

936. The energy, water supply and sewerage programmes will continue to be expanded to contribute to the promotion of economic growth and improvement in the quality of life. In view of the increasing cost of fuel since 1973, high priority is given to finding alternative sources of energy and the formulation of a comprehensive energy policy. Water supply programmes will be accelerated to meet increasing domestic and industrial demands of both the urban and rural areas. In order to improve urban environment, public health and sanitation, the sewerage programmes will be extended to major towns during the Fourth Malaysia Plan (FMP). Rural electricity and water supplies, which have direct impact upon the quality of life of the rural population, will continue to be given emphasis.

II. PROGRESS, 1971-80

Energy

937. Energy consumption in the country during 1971-80 grew at an annual rate of about 9%. Petroleum products contributed about 88% of the total energy consumption in 1970 and this increased to about 95% by 1980. The consumption increased from about 63,300 barrels per day oil equivalent (bdoe) in 1970 to nearly 155,000 bdoe in 1980, an increase of 144.9%. Among the petroleum products consumed, the largest proportion was fuel oil at 38.1% in 1979, followed by diesel at 29.6%, petrol 18%, kerosene 4.8% and others 9.5%.

938. The demand for electricity in Peninsular Malaysia during the period showed an annual growth of about 12.7%, from about 2,178 million kilowatt hour (kwh) in 1970 to 7,266 million kwh in 1980, more than a three-fold increase. Although the development of hydro-electric power generation was given emphasis during the Third Malaysia Plan (TMP), due to its long gestation period, the major source of power generation was still achieved mainly through thermal plants using fuel oil. At the beginning of the Second Malaysia Plan (SMP), electricity generation by the National

Electricity Board (NEB) from its thermal, hydro and gas power stations was estimated at 770 Megawatts (MW), which increased to 2,140 MW in 1980. This increase in supply of electricity was principally due to the commissioning of Sultan Ismail Power Station at Johor Bahru (60 MW), Tuanku Jaafar Power Station at Port Dickson (480 MW), Prai Power Station (390 MW), Temenggor Hydro-electric Project (340 MW) and five gas turbines of 20 MW each. The generating capacity installed by the NEB by the end of 1980 totalled about 2,140 MW, of which 1,405 MW (65.7%) was generated by oil-fired thermal and diesel power stations, 635 MW (29.3%) by hydro power and 100 MW (5%) by gas turbines.

939. With the increased generating capacity, the transmission and distribution systems were also expanded. Transmission lines increased by 83.6% from 1,400 kilometers (km) in 1970 to 2,570 km in 1980, while distribution lines increased by 400.7% from 2,085 km in 1970 to 10,440 km by the end of the period. Following the commissioning of the Temenggor Hydro-electric Project in 1979, transmission lines were extended to Tanah Merah and Kota Bharu, bringing these areas within the national grid. The percentage of the NEB electricity supply not covered by the national grid was reduced from 8.2% to 5.4% during the same period.

940. During the TMP period, the NEB took over the supply of electricity for Pulau Pinang from the then Electricity Supply Department of Penang Town Council. The take-over included the acquisition of major stations at Glugor and other diesel stations with a total capacity of 43.3 MW.

941. The total installed generating capacity of Sabah Electricity Board (SEB) increased from 34 MW in 1970 to 132 MW in 1980, an increase of 288.2%. The major projects completed during the decade included the installation of generating sets of 48 MW diesel sets at Kota Kinabalu, 31-MW sets at Sandakan, 11 MW sets at Labuan and other smaller units totalling 8 MW sets dispersed in various towns in Sabah. Tenom-Pangi Power Project phase I, the first hydro-electric project in Sabah, which was initiated in 1979 has an initial capacity of 66 MW and the generated power will be transmitted by a 120 km long double circuit transmission line of 132 kilovolt to Kota Kinabalu. The project is scheduled for completion in 1984.

942. With the completion of Sungai Biawak Power Station with a generating capacity of 36 MW, two diesel sets of 8.5 MW each at Sungai Priok, two diesel sets of 7.8 MW at Sibu and one 4-MW gas turbine at Miri, as well as the installation of two gas turbines of 4 MW each at Bintulu-Tanjung Kidurong Station, the total installed generating capacity of Sarawak Electricity Supply Corporation (SESCO) increased from 32 MW in 1970 to 112.6 MW at the end of 1980. The feasibility study of Batang Ai Power Project, the first hydro-electric project in Sarawak, was completed in 1978 and work on detailed engineering design interfaced with construction began in 1980.

943. During the decade, 3,621 rural electricity projects costing about \$187.2 million were implemented in Peninsular Malaysia, thus increasing the number of households provided with electricity from 345,600 in 1970 to 790,000 in 1980, an increase of 128.6%. By the end of 1980, about 29% of the rural population in Sabah had access to electricity supply compared with 7.5% in 1970. The above achievement was due to the implementation of rural electricity projects costing \$23.8 million during the decade. In Sarawak, about 5,000 households in 73 villages benefitted from the implementation of about \$13.4 million worth of rural electricity projects by 1980 compared with 870 households in six villages in 1970.

Water supply

944. Accelerated water supply development undertaken during the decade enabled a wider coverage of the population to be served with potable water. The number of people benefitting from the implementation of the programmes increased from 4,968,000 in 1970 to 8,479,000 in 1980, representing 46.1% and 59.4% coverage of the total population, respectively. In Peninsular Malaysia and Sarawak, urban coverage increased from 83% and 90% in 1970 to 90.7% and 93% in 1980 whilst rural coverage improved to 47.2% and 25% from 39% and 13% in 1970, respectively. In Sabah, urban coverage increased from 95% in 1970 to 99% in 1980 whilst rural coverage was about 18% by the end of the decade.

945. With the completion of several major water supply projects such as Alor Setar phase III, Durian Tunggal stage I, Kota Kinabalu phase II, Kuantan/Sungai Panching, Kuching, Sibu, Sungai Langat phase II and III as well as Sungai Linggi phase II, the treatment plant production capacity was increased from 246 million gallons per day (mgd) in 1970 to 597 mgd in 1980. Works on other new projects such as Bintulu, Dindings stage II and III, Durian Tunggal phase II, Muar, the New Kuala Trengganu, Segamat, Sungai Batu, Sungai Linggi phase III, Sungai Terip stage I and Tawau water supply schemes were in various stages of implementation.

946. As a result of the Federal Government's financing of the entire capital costs of rural water supply projects in deficit states and two-thirds in non-deficit states since 1977, the implementation of rural water supply programmes was accelerated. By 1980, 1,014 rural water supply schemes were implemented in Peninsular Malaysia, thereby, increasing the number of households benefitting from these programmes to 600,700. In Sabah, the construction of 27 rural water supply projects by 1980 benefitted 18,300 households, whilst in Sarawak, the number of rural water supply schemes implemented was increased from 22 in 1970 to 30 in 1980.

947. During the decade, the provision of water supply to Federal Land Development Authority (FELDA) schemes facilitated the settlement of 45,640 families in 90 schemes. The provision of water supply facilities for the regional development areas gained momentum towards the end of 1980.

The original target set for these authorities was to complete 14 projects with a total production capacity of 35.7 mgd. By the end of 1980, ten projects were completed supplying 17 mgd.

948. The water resources management studies for Kelang Valley, Pahang Tenggara and Kedah/Perlis were completed during 1979-80. These studies included an assessment of the future water supply requirements up to the year 2000. In line with the finding of the Kelang Valley Water Resources Study, the design of phase I of Sungai Semenyih water supply project was initiated in 1980 to meet the increasing domestic and industrial water supply requirements of the Kelang Valley. Similar studies were started for the South Coastal Trengganu region as well as for Melaka, Negeri Sembilan and North Johor.

949. In view of the competing use of surface water and the need to integrate water resources development and management on a national basis, a national water resources study was initiated in 1979.

Sewerage

950. Sewerage programmes were concentrated mainly in the larger urban areas. In 1970, 11% of the urban population in Peninsular Malaysia was provided with central sewerage systems. In 1980, the population covered increased only to 14%. This was due to the completion of certain sections of Kuala Lumpur and George Town sewerage projects.

951. Work on phase I of the Kuala Lumpur Sewerage Project was 50% completed sewerage Bungsar, Cochrane, Datuk Keramat, Imbi, Old Kelang Road, Pudu and Sungai Besi areas. Work on extension of the George Town Sewerage Scheme was initiated during the TMP and, when completed, would serve 26,240 households. Feasibility studies and preliminary engineering designs were also initiated for a number of sewerage schemes such as Alor Setar, Butterworth-Bukit Mertajam, Johor Bahru, Kota Kinabalu, Sandakan and Tawau.

952. In addition, new housing projects are being implemented both by the private and quasi-government sectors with central sewerage facilities. In Kuala Lumpur and George Town, these provided coverage to an additional 65,000 and 19,500 households, respectively.

III. PROGRAMMES, 1981-85

Energy

953. A comprehensive national energy policy is being formulated to meet the increased requirement in energy inputs in line with the economic goals as stated in the Outline Perspective Plan 1970 to 1990. The need to identify all available energy resources in the country has, therefore, become urgent. For purposes of the national survey of energy resources, all forms of conventional and non-conventional sources of energy will be identified and inventorised into a master list. Appropriate technical and economic

studies will be carried out to determine the time-frame for utilisation of these resources depending on priorities. The Government will also take into consideration realistic pricing as well as the environmental implications of energy development and conservation during the course of formulating the policy.

954. During the FMP, the main targets of the energy sector will be to reduce the country's over dependence on petroleum for electricity generation by utilising other alternative sources such as hydro power and gas as well as to increase the coverage of electricity supply to the rural households.

955. Several major hydro-electric projects and thermal power plants initiated during TMP such as Bersia (72 MW) and Kenering (120 MW) in Perak, Kenyir (400 MW) in Trengganu, phase I (66 MW) and phase II (44 MW) of Tenom-Pangi Project in Sabah as well as Pasir Gudang thermal power station (240 MW) in Johor and Connaught Bridge Gas Turbine Station (160 MW) in Selangor will be completed during the Plan period, thereby, increasing the total installed generating capacity in the country by 1,100 MW. In addition, projects such as Batang Ai (92 MW) and Pelagus (1,000 MW) Hydro-electric Projects in Sarawak, Port Kelang thermal power station, phase I (600 MW) in Selangor and the natural gas powered stations in Paka, Trengganu (450 MW) as well as in Labuan, Sabah (120 MW) will be implemented. With the commissioning of these projects, total electricity generating capacity in the country will be further increased by 2,320 MW to 6,090 MW by the year 1990.

956. During the FMP, electricity supply to rural areas will be further extended through implementation of mini hydro schemes and solar installations. The NEB expects to increase the number of rural households supplied with electricity from 790,000 in 1980 to 1,090,000 by 1985. In Sabah, about 270 minor projects and mini hydro schemes are being planned by SEB to supply electricity to 24,000 rural households. In Sarawak, SESCO intends to widen electricity supply to about 17,000 households in 192 villages through conventional diesel generators, mini hydro schemes and solar installations.

Water supply

957. During the FMP, the water supply programmes will concentrate on further expansion of rural water supply. In addition, completion of urban water supply projects and implementation of new schemes will also be emphasised. With the implementation of both programmes, it is anticipated that 73.1% of the total population will be provided with safe water supply by 1985.

958. An allocation of \$349.8 million is allocated for rural water supply during the Plan to complete the construction of projects initiated during TMP as well as to implement new schemes. Out of the above allocation, \$263.8 million is for Peninsular Malaysia, \$30 million for Sabah, \$36 million for Sarawak and \$20 million for pilot projects to be initiated under the National Rural Water Supply Study. With the accelerated implementation

of rural water supply programmes, the rural population coverage is expected to reach 63% in Peninsular Malaysia, 39% in Sabah and 35% in Sarawak by 1985. In view of the recurrence of prolonged drought over certain period of each year, the implementation of the crash programme to drill and construct approximately 250 production wells for village water supply, which was initiated for the States of Kedah and Perlis in 1980, will be completed during the FMP.

959. Water supply programmes for FELDA schemes will continue to be given priority during the Plan. A sum of \$122 million is allocated for the implementation of 48 projects. For the regional development areas, an allocation of \$80 million is provided to implement eight water supply schemes.

960. The urban water supply schemes initiated during the TMP include Alor Setar phase IV, Durian Tunggal phase II (Melaka), Greater Kuantan, Kota Bharu, Kuala Lumpur phase III, the New Kuala Trengganu, Sungai Linggi phase III (Negeri Sembilan), Sungai Semenyih phase I and II (Selangor) as well as Kuching and Niah Subis water supply schemes in Sarawak. Most of these projects will be completed during the FMP and will increase the total treatment plant capacity to 771 mgd.

961. Several new water supply schemes will be implemented during 1981-85. The construction of phase I of Sungai Semenyih scheme to meet the increasing demands for water in Kelang Valley areas will commence in 1981 and is scheduled to be completed by 1984/85. Others include Dindings phase II (Perak), Greater Kuantan, Kota Kinabalu, Mengkuang (Pulau Pinang), Sandakan, Sungai Batu (Selangor), Sungai Terip stage I (Negeri Sembilan) and Tawau water supply schemes. With the completion of these new projects, it is anticipated that the treatment plant capacity of 1,013 mgd will be available by the end of 1985.

962. To meet the domestic and industrial water supply requirements for the South Coastal Trengganu region, which is geared for rapid development, the implementation of the South Coastal Trengganu Water Resources Study, which was initiated in late 1980, will be continued and is due for completion in late 1981. The Melaka, Negeri Sembilan and North Johor Water Resources Study will also be implemented during 1981-82. The primary objective of the study is to prepare an optimum plan for the development of Sungai Muar and its tributaries as the main source to meet the domestic and industrial water supply requirements up to the year 2010 for the areas both within and outside Sungai Muar basin including Melaka state. The study will also recommend specific water supply projects to be implemented to solve urgent water supply problems.

963. The implementation of the second phase of the National Water Resources Study, which commenced in July 1980, will be continued during the FMP. The third phase of the study will be initiated in mid 1981 and is anticipated to be completed in the first quarter of 1982. The objective of the study is to formulate a master action plan with a view to promoting a comprehen-

sive integrated approach to national water resources assessment, planning, development, conservation and management. The study is addressed not only to problems of water demand and supply in the country but also to those of constitutional and legal aspects as well as possible conflict among water users in the absence of effective arrangements to ensure coordination of water use and multi-purpose development of water resources.

964. The National Rural Water Supply Study will be initiated in mid 1981. The study is designed to produce a master plan for rural water supply development up to 1990 for the whole country.

Sewerage

965. During the FMP, in order to improve health and sanitation standards, the sewerage programmes will continue to give emphasis to the replacement of inefficient, insanitary and potentially hazardous methods of disposal with central water-borne sewerage systems especially in heavily populated areas. In addition, measures to prevent the pollution of rivers and coastal waters will be undertaken to reduce environmental pollution.

966. A sum of \$200 million is provided in the Plan to implement sewerage programmes. The second phase of the Kuala Lumpur Sewerage Project covering the areas of Bunas, Damansara, Gombak, Jinjang, Kerayong, Langat, Pantai, Petaling, Serdang and Sungai Besi as well as the George Town Sewerage Extension Scheme covering Batu Ferringhi and Bayan Baru will be implemented. On completion, the Kuala Lumpur and George Town sewerage projects will provide sewerage facilities to about 105,000 and 30,200 households, respectively.

967. In Selangor, the Bangi New Town and Shah Alam sewerage projects will be implemented to provide a more efficient waste disposal in the rapidly growing housing and industrial areas as well as to control the pollution of rivers, particularly Sungai Kelang, Sungai Langat and Sungai Renggam. The Butterworth-Bukit Mertajam and Ipoh sewerage schemes will also be implemented. Work will be initiated on the sewerage projects for the municipal areas of Johor Bahru, Kelang and Port Kelang, Kuala Trengganu, Kuantan, Melaka, Seremban and Taiping during the Plan period. Sewerage schemes for Bintulu, Kota Kinabalu, Kuching, Miri, Sandakan, Sibul and Tawau will also be initiated during 1981-85.

IV. ALLOCATION FOR ENERGY AND UTILITIES PROGRAMMES

968. The allocations for energy and utilities programmes for the Plan period are shown in Table 20-1. As indicated, the allocation for energy sector amounts to \$2,163 million, out of which \$682 million or 31.5% is for hydro power development and \$522.5 million or 24.2% is for rural electrification programmes. The allocation for utilities sector amounts to \$1,487 million, out of which \$1,287 million or 86.5% is provided for water supply programmes. Table 20-1 also shows the financial performance of the sector during 1971-80 within which a total of \$2,088 million was expended. Out of this total, a sum of \$1,328 million was expended for the energy sector and \$759.6 million for the utilities sector.

TABLE 20-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR
ENERGY AND UTILITIES PROGRAMMES, 1971-85

(\$ million)

	Revised SMP allocation, 1971-75	Actual Expenditure, 1971-75	Achievement (%)	Revised TMP allocation, 1976-80	Estimated Expenditure, 1976-80	Achievement (%)	FMP allocation, 1981-85
<i>Energy</i>	161.33	122.74	76.1	1,407.42	1,205.31	85.6	2,162.99
Hydro power	41.90	53.54	127.8	385.92	325.01	84.2	682.00
Thermal and gas	91.25	50.82	55.7	191.00	167.29	87.6	168.00
Rural electrification	28.18	18.38	65.2	281.00	224.38	79.8	522.50
Transmission and distribution	169.80	164.70	97.0	109.50	45.54	41.6	516.00
Others	25.00	23.40	93.6	445.10	443.09	99.6	274.49
<i>Water Supply</i>	241.00	172.85	71.7	708.19	509.09	71.9	1,287.74
Urban	211.74	159.96	75.5	377.13	254.12	67.4	736.00
Land schemes	8.26	6.73	81.5	106.57	92.94	87.2	122.02
Regional development areas:	16.00	3.00	18.8	77.35	38.93	50.4	79.96
Rural	5.00	3.16	63.2	147.14	123.10	83.7	349.76
<i>Sewerage</i>	12.60	8.60	68.3	170.95	69.10	40.4	200.00
Urban	12.60	8.60	68.3	170.95	69.10	40.4	200.00
TOTAL	414.93	304.19	73.3	2,286.56	1,783.50	78.0	3,650.73

CHAPTER XXI

Education and Training

I. INTRODUCTION

969. Policies and programmes for education and training will continue to be geared towards fostering national unity and increasing participation of all Malaysians in national development. The policy to make *Bahasa Malaysia* as the main medium of instruction will be fully implemented at the secondary level by 1982 in Peninsular Malaysia and Sabah, and by 1990 in Sarawak. By the end of the eighties, the policy will be fully implemented at the tertiary level. The use of English as a second language will be given greater emphasis.

II. PROGRESS, 1971-80

970. The most significant development in the field of education during the decade was the progress made towards the establishment of a national education system in which *Bahasa Malaysia* was the main medium of instruction. In 1970, all primary schools which previously used English started to use *Bahasa Malaysia* as the main medium of instruction in Standard One, in Peninsular Malaysia and Sabah, and by 1980 all classes up to Form Five were in *Bahasa Malaysia* medium. In Sarawak, the change was started in 1977 and by 1980, all classes up to Standard Four were in *Bahasa Malaysia* medium. The education systems in Sabah and Sarawak were progressively integrated with the national system, particularly in the field of teacher training, and the use of common curriculum in schools, apart from the use of *Bahasa Malaysia* as the main medium of instruction. In line with the Education Act, 1961, Government and Government aided schools at the primary level which used Chinese or Tamil Language as the medium of instruction continued to exist.

971. During the decade, curriculum in schools was developed not only to impart skill and knowledge but also to instil and inculcate values and norms in line with the principles of *Rukunegara*. Besides having common syllabus and examinations, the curriculum also gave importance to various aspects which would contribute towards national unity and a disciplined society. These included religious education for Muslim students, civics, history and geography which gave emphasis on the historical, economic

and social development of Malaysia and the Asian region. Other co-curricular activities such as membership in various clubs and associations and participation in athletics and sports activities became an important part of the school curriculum.

972. With regard to curriculum development, the Curriculum Development Centre, established in 1973, was responsible for the systematic planning and development of the curricular at primary and secondary levels in all subjects except technical and vocational, health and Islamic studies. In this respect, the Centre improved the syllabi for a number of subjects and produced support materials for teachers and pupils in the teaching and learning of *Bahasa Malaysia*, English Language, science and mathematics. In addition, the Centre conducted in-service training for teachers to acquaint them with improved teaching techniques and aids for the teaching of the above subjects.

973. To further improve the teaching and learning process in schools, especially those in the rural areas, the activities of the Education Media Service Division were further strengthened and expanded through the introduction of educational services on television in 1972. The education media service was also extended to Sabah and Sarawak in the Third Malaysia Plan (TMP). During the period, about 92% of schools in the country were equipped with radio and television.

974. In 1979, the Malaysian Examination Council was established to take over the administration of the Higher School Certificate (HSC) / *Sijil Tinggi Persekolahan Malaysia* (STP) examinations from the Examination Board, University of Cambridge. With the take-over, all examinations at the school level will be prepared locally from 1982. Since its establishment, the Council had formed various committees to provide guidance and advice on the administration and management of examinations. It had also appointed a secretariat for the Council and prepared examination procedures and syllabus.

975. In 1972, a Dropout Study was carried out and its recommendations to reduce dropouts from the education system, were implemented, resulting in improvements in the survival rates at the primary and secondary levels. A number of small schools in the rural areas, especially at the primary level, were amalgamated to the extent possible so as to effectively utilize resources aimed at improving the quality of education. Scholarships were also awarded to needy pupils at the secondary level. During the decade, 448,900 pupils benefitted from this programme. A Text Book Loan Scheme was introduced in 1975 to provide basic learning facility to pupils from the low-income group. During 1975-80, 13,648,729 pupils benefitted from the scheme. Supplementary Feeding Programme in schools was introduced in 1976 to improve the health of rural children and their performance in schools. Under the programme, supplementary feeding was given free to about 15% to 45% of pupils in primary schools.

976. Enrolment at all levels of education increased significantly with the expansion of facilities, especially at the tertiary level. In order to gear tertiary education to manpower requirements, efforts were undertaken to increase courses in science and technology at the diploma and degree levels. Enrolment in these courses also increased significantly. Table 21-1 summarizes enrolment at the various levels of education.

TABLE 21-1

MALAYSIA: STUDENT ENROLMENT BY LEVELS OF EDUCATION, 1970-85

	Enrolment			Increase (%)	
	1970	1980	1985	1971-80	1981-85
Primary					
Government ¹ and Government aided ² schools	1,679,798	2,006,760	2,260,366	19.5	12.6
(Percentage of all levels)	75.0	63.7	60.2		
Lower secondary					
Government and Government aided schools	432,703	809,663	955,149	87.1	18.0
MARA Junior Science Colleges	—	2,442	6,225	—	154.9
Total	432,703	812,105	961,374	87.7	18.4
(Percentage of all levels)	19.3	25.7	25.6		
Upper secondary					
Arts and science					
Government and Government aided schools	94,966	230,924	383,339	143.2	66.0
MARA Junior Science Colleges	—	794	2,400	—	202.3
Kolej Tunku Abdul Rahman	161	40	160	-75.1	300.0
Technical and vocational					
Government and Government aided schools	4,510	16,785	23,360	272.2	39.2
Total	99,637	248,543	409,259	149.4	64.7
(Percentage of all levels)	4.4	7.9	10.9		
Post secondary					
Government and Government aided schools	11,564	27,000	37,086	133.5	37.4
Kolej Tunku Abdul Rahman	1,034	3,797	4,020	267.2	5.9
Institusi Teknologi MARA	391	—	—	—	—
Total	12,989	30,797	41,106	137.1	33.5

TABLE 21-1—(cont.)

MALAYSIA STUDENT ENROLMENT BY LEVELS OF EDUCATION, 1970-85—(cont.)

	Enrolment			Increase (%)	
	1970	1980	1985	1971-80	1981-85
(Percentage of all levels)	0.6	1.0	1.1		
Teacher training					
Primary and secondary levels	2,927	13,311	21,330	354.8	60.2
(Percentage of all levels)	0.1	0.4	0.5		
Preliminary and introductory courses ³	646	2,448	3,050	278.9	24.6
(Percentage of all levels)	0.1	0.1	0.1		
Certificate level	369	2,585	6,511	600.5	151.9
(Percentage of all levels)	0.1	0.1	0.2		
Diploma level	3,318	14,776	23,737	345.3	60.6
(Percentage of all levels)	0.1	0.5	0.6		
Degree level ⁴	7,677	20,764	29,540	170.5	42.3
(Percentage of all levels)	0.3	0.6	0.8		
GRAND TOTAL	2,240,064	3,152,089	3,756,273	40.7	19.3

¹ Includes fully assisted schools in Peninsular Malaysia.² Includes partially assisted schools in Peninsular Malaysia.³ Preparatory courses conducted at the *Institusi Teknologi Mara* and all universities excluding *Universiti Teknologi Malaysia*.⁴ Includes enrolment in post-graduate courses at the respective universities and *Institusi Teknologi Mara*.**Education programmes**

977. *Primary education.* During the decade, enrolment at the primary level increased by 19.5% from 1,679,798 in 1970 to 2,006,760 in 1980. In Peninsular Malaysia, enrolment increased by 16.5%, Sabah 25.6% and Sarawak 43.7%. The enrolment in 1970 constituted 85.1% of those in the six to eleven age group, while in 1980 it was 91.4%. To cater for the increased enrolment and to replace sub-standard facilities in the rural areas, a total of 12,087 classrooms were built in Peninsular Malaysia, 876 in Sabah and 1,531 in Sarawak. In view of the importance of library facilities as a means to develop interest in knowledge, the inclusion of library facilities was made an essential part of the school building programme. In 1980, about 67.7% of primary schools in Peninsular Malaysia, 70% in Sabah and 15% in Sarawak were equipped with centralised library facilities.

978. *Secondary education.* At the secondary level, total enrolment in the Government and Government aided schools increased from 539,233 in 1970 to 1,067,587 in 1980. The abolition of the Common Entrance Selection Examination for entry into lower secondary classes in 1964 and the provision of nine years of universal education comprising six years of primary and three years of secondary education ensured a significant increase in enrolment at the lower secondary level. Measures taken to improve the survival rates from primary to secondary level also contributed towards the

increase in enrolment. In 1980, 84.3% of pupils in Standard Six proceeded to the lower secondary. To cater for the increased enrolment, a total of 6,207 classrooms, 1,065 science laboratories, 403 workshops and 282 libraries were constructed during the decade.

979. To provide and increase the opportunity for students from rural areas to have access to secondary science education, residential science schools were established throughout Peninsular Malaysia. By the end of the decade, there were ten residential science schools with a total enrolment of 6,162. MARA established Junior Science Colleges to provide additional secondary science education facilities particularly for Bumiputera. By 1980, there were five Junior Science Colleges with a total enrolment of 3,390.

980. *Secondary technical and vocational education.* Vocational education was conducted at the upper secondary level in subjects such as engineering trades, agriculture, commerce, and home science, leading to the Malaysian Certificate of Vocational Education. Optional subjects such as surveying, engineering workshop practice, building construction, technical drawing, agriculture and commerce were offered at the technical schools. The vocational and technical schools were established to provide general education and to develop skills and technical knowledge suitable for employment in the public and private sectors.

981. During the decade, nine technical and 24 vocational schools were established. Enrolment in technical schools, including those at post-secondary level, increased from 1,973 in 1970 to 5,769 in 1980, while enrolment in vocational schools increased from 2,672 to 11,415 during the same period. Five more vocational schools in Peninsular Malaysia, two in Sarawak, one extension and two new projects in Sabah were under different stages of construction.

982. *Teacher training.* Teacher Training Colleges for the training of primary and secondary school teachers in Government and Government aided schools increased from 14 in 1970 to 25 in 1980, of which 19 were in Peninsular Malaysia, three in Sabah and three in Sarawak. During the decade, the number trained increased from 1,040 in 1970 to 5,876 in 1980. Of those trained during 1970-80 to teach at the lower secondary level, 5,372 were in science and mathematics, 5,574 in commercial, technical and vocational subjects and 789 in agricultural science. In addition, 4,006 were trained to teach *Bahasa Malaysia* and 1,598 to teach English as a second language.

983. In-service courses were also given importance, not only to train serving temporary teachers but also to upgrade the knowledge and teaching methodology of teachers in various subjects such as science, mathematics, *Bahasa Malaysia* and the English Language. During the decade, various in-service courses were conducted for about 223,302 qualified teachers. A total of 12,089 serving temporary teachers were also given training.

984. Training of teachers at the degree level was carried out at *Universiti Malaya* (UM), *Universiti Sains Malaysia* (USM), *Universiti Kebangsaan Malaysia* (UKM) and *Universiti Pertanian Malaysia* (UPM). During the decade, 6,962 graduated from these institutions, of whom 2,817 were in science and related subjects and 4,145 in the arts and humanities. In addition, UPM and *Universiti Teknologi Malaysia* (UTM) also conducted science with education courses at the diploma level. A total of 1,085 teachers graduated with diploma in science with education. UM also conducted courses in the teaching of English as a second language to serving teachers. Courses in education technology were conducted at the USM.

985. The increased intake of trainee teachers at the colleges and universities was necessary to cater for the increased enrolment at the primary and secondary levels. Overall shortage of teachers in various subjects was also gradually reduced with the expansion of programmes to train teachers in specific subjects. However, shortage of teachers in subjects such as science and the English Language continued to exist, necessitating the recruitment of teachers from abroad.

Tertiary education

986. During the decade, programmes for tertiary education were reviewed and expanded in line with the overall manpower requirements. Courses at diploma and certificate levels were expanded to meet shortage of manpower at the sub-professional and technician levels, while courses in various science, technical and related subjects at both the diploma and degree levels were given greater emphasis. Enrolment in tertiary education increased by 235.5% from 11,364 in 1970 to 38,125 in 1980. At the degree and diploma levels, enrolment in science and technical subjects increased by 311.7% from 4,750 in 1970 to 19,555 in 1980, while enrolment in the arts and humanities increased by 156% from 6,245 to 15,985. The breakdown of enrolment increases for the various institutions in tertiary education is shown in Table 21-2.

987. As indicated in Table 3-12 Chapter III, the number of Bumiputera in certain professional occupations such as architect, accountant, engineer, dentist and doctor was low, ranging from 3.1% to 7.3% in 1970. A deliberate measure taken to improve the situation was to increase intake of Bumiputera in the various professional courses in the country as well as abroad. The output from these training programmes improved the situation, and by 1979, Bumiputera in these professions increased to between 7.6% to 29.2%.

988. To provide additional facilities for training at the sub-professional level in engineering and commercial subjects, a second polytechnic was established at Kuantan in 1976 at its present temporary premises, and by 1980, it trained a total of 321 at the certificate level. *Politeknik Ungku Omar* in Ipoh, *Politeknik Kuantan*, *Kolej Tunku Abdul Rahman* (KTAR) in Kuala Lumpur and the *Institusi Teknologi MARA* (ITM), in total trained 15,008 in various arts, science, engineering, technical and commercial courses at the certificate and diploma levels.

TABLE 21-2

MALAYSIA: ENROLMENT INCREASES IN TERTIARY EDUCATION, 1970-85

	Enrolment			Increase (%)	
	1970	1980	1985	1971-80	1981-85
Certificate level					
Politeknik Kuantan	—	461	1,330	—	188.5
Politeknik Ungku Omar	369	1,551	1,744	320.3	12.4
Kolej Tunku Abdul Rahman	—	451	2,945	—	553.0
Institusi Teknologi MARA	—	122	492	—	303.2
Sub-total	369	2,585	6,511	600.5	151.9
Diploma level					
Politeknik Kuantan	—	—	140	—	—
Politeknik Ungku Omar	49	266	256	442.9	-3.8
Kolej Tunku Abdul Rahman	—	1,752	2,975	—	69.8
Institusi Teknologi MARA	1,902	7,732	14,593	306.5	88.7
Universiti Pertanian Malaysia	545	1,680	2,360	208.3	40.5
Universiti Teknologi Malaysia	822	3,346	3,413	307.1	2.0
Sub-total	3,318	14,776	23,737	345.3	60.6
Degree level ¹					
Institusi Teknologi MARA	—	719	1,822	—	153.4
Universiti Malaya	7,267	8,045	8,920	10.7	10.9
Universiti Sains Malaysia	231	3,597	5,644	1,457.1	56.9
Universiti Kebangsaan Malaysia	179	5,807	9,298	3,144.1	60.1
Universiti Pertanian Malaysia	—	1,783	2,506	—	40.5
Universiti Teknologi Malaysia	—	813	1,350	—	66.1
Sub-total	7,677	20,764	29,540	170.5	42.3
TOTAL	11,364	38,125	59,788	235.5	56.8

¹ Includes enrolment in post-graduate courses.

989. In the development of higher education, the decade saw the establishment of the UKM in 1970, UPM in 1971, and the UTM in 1972. In addition, branch campuses were also established, namely branch campuses of the UPM in Sarawak, UKM in Sabah, UM in Kelantan, and the ITM in Sabah, Sarawak, Perlis and Trengganu. Many new fields of studies were also introduced, and existing ones expanded. The number of faculties offering degree and diploma courses in various subjects increased from 15 in 1970 to 40 in 1980. This development included the establishment of the Faculty of Dentistry, Faculty of Law, Language Centre and Centre for Post-Graduate Studies and Research at UM, the Faculty of Medicine and Faculty of Economics and Management at UKM, the School of Housing, Building and Planning, and the School of Medical Sciences at USM. New course structures such as the integrated diploma courses at the UTM, and the integrated science with education courses were also established at UM, UKM, USM and UPM. The universities were also engaged in important research in relevant fields such as environmental pollution, engineering, housing, agriculture, uses of agricultural wastes, solar energy and traditional

medicine. Research facilities at the various faculties in the universities were established and expanded to enable extensive inter-disciplinary research activities to be carried out at the graduate and post-graduate levels. A Centre for Policy Research at USM was established in 1974, a Centre for Extension and Post-Graduate Studies at UPM in 1976 and a Centre for Post-Graduate Studies at UM in 1979.

990. A major programme initiated during the decade was the establishment of preparatory courses for Bumiputera with Malaysian Certificate of Education (MCE) or HSC qualifications in science subjects to enable them to pursue science, engineering, medical and other technical courses in ITM and the various universities except UTM. This included the matriculation courses conducted by USM and UKM, preparatory courses conducted by ITM and UPM and basic science course conducted by UM. This programme contributed substantially towards increasing the number of Bumiputera in science and related fields.

991. Off-campus courses specially designed to enable those already employed to obtain a degree level education was introduced by USM in 1971. Courses in humanities and social science and pure science were offered.

Malaysian students overseas

992. Many Malaysians, privately as well as sponsored by the Government, pursued studies in overseas institutions. To help parents finance children studying overseas, income tax allowance for children educated abroad was increased from double to quadruple the amount of children's relief. To enable better planning and assessment of available and projected manpower supply in the country, efforts were made to obtain comprehensive information regarding the number of Malaysian students overseas, their ethnic composition and levels of study and courses pursued. In 1980, the number of Malaysian students overseas were estimated to be 39,908, of whom 60.5% were Chinese, 23% Bumiputera, 15.9% Indians and 0.6% other Malaysians. Of the total number of Malaysian students overseas, 19,515 were in degree courses, 4,953 in diploma courses, 5,263 in certificate courses and 10,177 in post-secondary level education. Table 21-3 shows the breakdown of enrolment in tertiary education by race and levels of education in public and private institutions in the country and overseas. To cater for the welfare of the students and to provide information and recreational facilities, students departments were established in Cairo, Jakarta, London, New Delhi, Ottawa, Sydney, Washington D.C. and Wellington. In addition, 42 student centres were established in Australia, Belgium, Egypt, India, Indonesia, Iraq, Japan, New Zealand, Pakistan, Saudi Arabia, United Kingdom, United States of America and West Germany.

Training programmes

993. *Skill training.* During the decade, skill training programmes were expanded to increase the supply of trained manpower in technical, vocational and commercial fields, the target group being those outside the

TABLE 21-3

MALAYSIA: ENROLMENT IN TERTIARY EDUCATION BY RACE AND LEVELS OF EDUCATION, 1970⁶ AND 1980

	1970					1980				
	Bumi-putera	Chinese	Indians	Others	Total	Bumi-putera	Chinese	Indians	Others	Total
Certificate courses										
<i>Politeknik Kuantan</i>	—	—	—	—	—	342	91	22	6	461
<i>Politeknik Ungku Omar</i>	151	209	9	—	369	1,148	311	71	21	1,551
<i>Kolej Tamku Abdul Rahman</i>	—	—	—	—	—	—	448	3	—	451
<i>Institut Teknologi MARA</i>	—	—	—	—	—	122	—	—	—	122
Local private institutions ⁷	—	—	—	—	—	554	3,029	455	54	4,092
Institutions overseas	—	—	—	—	—	194	4,351	654	64	5,263
Sub-total	151	209	9	—	369	2,360	8,230	1,205	145	11,940
(%)	41.0	56.6	2.4	—	100.0	19.8	68.9	10.1	1.2	100.0
Diploma courses										
<i>Politeknik Kuantan</i>	—	—	—	—	—	—	—	—	—	—
<i>Politeknik Ungku Omar</i>	13	31	5	—	49	202	53	9	2	266
<i>Kolej Tamku Abdul Rahman</i>	—	—	—	—	—	6	1,687	59	—	1,752
<i>Institut Teknologi MARA</i>	1,902	—	—	—	1,902	7,732	—	—	—	7,732
<i>Universiti Pertanian Malaysia</i>	458	72	3	12	545	1,565	71	42	2	1,680
<i>Universiti Teknologi Malaysia</i>	498	290	24	10	822	2,989	258	74	25	3,346
Local private institutions	—	—	—	—	—	577	4,358	943	90	5,968
Institutions overseas	—	—	—	—	—	1,811	2,563	515	64	4,953
Sub-total	2,871	393	32	22	3,318	14,882	8,990	1,642	183	25,697
(%)	86.5	11.8	1.0	0.7	100.0	57.9	35.0	6.4	0.7	100.0

TABLE 21-3—(cont.)

MALAYSIA: ENROLMENT IN TERTIARY EDUCATION BY RACE AND LEVELS OF EDUCATION, 1970⁶ AND 1980—(cont.)

	1970					1980				
	Bumi-putera	Chinese	Indians	Others	Total	Bumi-putera	Chinese	Indians	Others	Total
Degree courses ⁸										
<i>Institut Teknologi MARA</i>	—	—	—	—	—	719	—	—	—	719
<i>Universiti Malaya</i>	2,843	3,622	525	277	7,267	4,045	3,162	676	162	8,045
<i>Universiti Sains Malaysia</i>	67	126	33	5	231	1,956	1,354	270	17	3,597
<i>Universiti Kebangsaan Malaysia</i>	174	4	1	—	179	4,997	621	180	9	5,807
<i>Universiti Pertanian Malaysia</i>	—	—	—	—	—	1,460	223	88	12	1,783
<i>Universiti Teknologi Malaysia</i>	—	—	—	—	—	680	90	34	9	813
Institutions overseas	—	—	—	—	—	5,194	11,538	2,676	107	19,515
Sub-total	3,084	3,752	559	282	7,677	19,051	16,988	3,924	316	40,279
(%)	40.2	48.9	7.3	3.6	100.0	47.3	42.2	9.7	0.8	100.0
TOTAL	6,106	4,354	600	304	11,364	36,293	34,208	6,771	644	77,916
(%)	53.7	38.3	5.3	2.7	100.0	46.6	43.9	8.7	0.8	100.0

⁶ The breakdown of enrolment of Malaysian students in local private and overseas institutions is not available for 1970.⁷ This covers students who were attending courses leading to recognised qualifications.⁸ Includes enrolment in post-graduate courses.

school system. Training programmes were expanded through the establishment of training institutions and the introduction of courses in various trades such as automotive, building, woodwork, electrical and electronics, mechanical and printing, relevant to the requirements of trade and industry. A second Industrial Training Institute (ITI) was established at Prai in 1972. Six additional vocational institutes at Johor Bahru, Kuala Lumpur, Lumut, Pekan, Petaling Jaya and Sungai Petani and one commercial institute at Kuala Lumpur were established by MARA. Facilities at the youth training centres in Dusun Tua and Pertak were also expanded. During the decade, about 43,900 were trained by these institutions.

994. The setting up of the National Industrial Training and Trade Certification Board (NITTCB) in 1971 ensured common trade standards in vocational institutions and improved syllabi and course structures. NITTCB also prepared national training syllabi for 23 industrial trades at the basic level and 20 at the intermediate level.

995. In 1979, a Manpower Development Board (MDB) was established to take over the functions of the National Advisory Council on Industrial Training and the Co-ordinating Committee of Officials on Employment and Training. Since its establishment, the MDB had carried out various activities aimed at overcoming specific problems in the fields of manpower development. The activities included the preparation of a preliminary National Masterplan for Manpower Development and State Masterplan for Manpower Development for Kedah, Melaka and Negeri Sembilan. The MDB also carried out studies on the shortage of instructors in training institutions which were responsible for manpower development and shortage of technical assistants in the public sector.

996. *Management training.* Training in managerial and administrative fields undertaken by various institutions such as the National Productivity Centre (NPC), National Institute of Public Administration (INTAN) and the ITM were expanded to cater for more intake. During the decade, 28,660 were trained by the NPC, 17,760 by INTAN and 6,100 by ITM. In an effort to expand training facilities, NPC and INTAN also established regional centres. The construction of a main campus for INTAN at Bukit Kiara, Kuala Lumpur and regional centres at Kemaman, Kluang and Sungai Petani commenced during 1980. NPC established a regional centre in Kuantan in 1976.

III. PROGRAMMES, 1981-85

997. The emphasis of education and training programmes during the Fourth Malaysia Plan (FMP) will be to expand and increase further their efficiency as an important instrument in meeting manpower requirements and achieving the New Economic Policy (NEP) objectives. The recommendations contained in the Report of the Cabinet Committee to Review the Implementation of the Education Policy 1979, as agreed to by the Government, will form the basis of these programmes. Measures aimed at improving the teaching and learning process, such as class size, class-teacher

ratio and curriculum, and the implementation of education support programmes such as remedial education and amalgamation of small schools in the rural areas, will be given priority during the FMP.

998. The use of *Bahasa Malaysia* as the main medium of instruction will continue to be progressively implemented such that by the end of the eighties, it will be the main medium of instruction at the primary, secondary and tertiary levels. The teaching and learning of *Bahasa Malaysia*, especially in Chinese and Tamil medium schools will be further improved through the provision of trained teachers. Measures aimed at strengthening the teaching of English as a second language will be continued. Towards this end, steps will be taken to ensure that more teachers will be trained in the teaching of the English Language. Resource centres will be set up at the state level to ensure that schools are well equipped with teaching materials. In-service courses for English Language teachers will also be continued so as to enable teachers to use the latest teaching techniques and methods more effectively.

999. Islamic religious education will continue to be compulsory for Muslim students at the primary and secondary levels. Non-Muslim students will be taught moral education and ethics during the period when Muslim students and those who choose to do so are attending classes in Islamic knowledge. The main objective of religious and moral education and ethics is to build a strong basis for developing a disciplined society with high moral values. During the Plan period, ten new Islamic secondary schools will be constructed and those taken over from State Governments will be provided with additional facilities. These schools have similar curriculum as the academic secondary schools, but with emphasis on Islamic teachings and the Arabic Language. The teaching of Islamic religious knowledge in schools will be further improved with intensive training for teachers. A new Islamic Teacher Training College will be built in Selangor to replace the temporary college building at Petaling Jaya.

Education programmes

1000. *Primary education.* Enrolment at the primary level in the Government and Government aided schools is estimated to increase from 2,006,760 in 1980 to 2,260,366 in 1985. During the period, 8,000 classrooms will be constructed to cater not only for the existing shortage of classroom facilities but also for the increase in enrolment. Some of the new classrooms will be built mainly to replace the sub-standard facilities of schools in the rural areas, and to reduce over-crowding in those in the urban schools. In the urban schools, where the average class size is 42, the class size will be gradually reduced to 36 by the end of the Plan period. The average class size of 30 in the rural schools will be maintained, but more classrooms will be built to replace those of sub-standard quality.

1001. A new curriculum is being formulated for primary level which will be able to establish a firm education foundation, especially in reading, writing and arithmetic (3 Rs). The new curriculum will be divided into two phases, the first phase from Standards One to Three and the second, from

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1001. A new curriculum is being formulated for primary level which will be able to establish a firm education foundation, especially in reading, writing and arithmetic (3 Rs). The new curriculum will be divided into two phases, the first phase from Standards One to Three and the second, from

Standards Four to Six. For the first phase, the curriculum will be designed such that 75% of the time will be spent on the acquisition of the 3 Rs; and the other 25% on other education activities. In the second phase, the basic skills will still be the thrust of the curriculum. At this stage some of the basic academic element will be introduced in an integrated way to incorporate various disciplines and knowledge. This new curriculum will be planned, developed and tried out during 1981 and 1982. It is anticipated that phased implementation will begin in 1983 with Standard One.

1002. *Secondary education.* Enrolment at the lower secondary level in the Government and Government aided schools is estimated to increase from 809,663 in 1980 to 955,149 in 1985, while that in the upper secondary from 230,924 to 383,339. The increase in enrolment at the upper secondary level will be significant as it forms the initial implementation of the policy of extending the existing nine years of universal schooling to eleven years. This would entail an increase in the number of classrooms, not only to cater for the increase in enrolment at the lower and upper secondary levels, but also to reduce the class size at the secondary level from the existing average of 42 per class to 33 in 1985. During the Plan period, 4,000 classrooms at the secondary level will be constructed. In addition, ten MARA Junior Science Colleges will be built.

1003. *Technical and vocational education.* Steps will be taken to replace the present system of streaming into arts, science, technical and vocational at the upper secondary level with streaming into general education and vocational in line with the recommendations of the Cabinet Committee. To achieve this objective, more vocational schools will be built to cater for the increase in enrolment. In 1980, pupils in vocational schools form 4.6% of the total enrolment at the upper secondary. This will be increased to 6.3% in 1985. During the Plan period, 12 new vocational schools will be constructed. An added feature to vocational education will be the introduction of one year specialised courses for those possessing the Malaysian Certificate of Vocational Education. The courses will be designed to train students to a level of skill required by industry. Courses will be in various trades such as tool and dye making, foundry practice, welding, refrigeration and air conditioning, architectural and structural drafting. Short term courses of one year duration will also be conducted for those with the *Sijil Rendah Pelajaran*. The courses, in various trades such as general mechanical fitting, tiling and flooring, bricklaying and plastering, plumbing and welding will provide basic skills to enable the trainees to be gainfully employed after their course.

1004. *Teacher training.* To improve the quality of teachers at primary and lower secondary levels, the training period will be extended from two to three years beginning with the intake of trainee teachers in 1981. Expansion of existing physical facilities and building of two new teacher training colleges will be undertaken during the Plan period. The class-teacher ratio will be revised so as to improve the teaching and learning process. It is estimated that 21,330 teachers will be trained during the Plan period.

In-service teacher training programme will continue to play a significant role as an overall effort to improve and upgrade the performance of teachers and the quality of education. Towards this aim, the four Education Resource Centres under construction at Alor Setar, Kota Bharu, Kuala Trengganu and Kuantan will provide valuable support programmes for the in-service training of teachers.

1005. Programmes to increase the supply of graduate teachers at the diploma and degree levels will be continued. During the Plan period, it is estimated that a total of 5,900 teachers will graduate from the five universities. Of these, 3,530 will be in the science and related subjects.

Tertiary education

1006. Programmes for higher education will be geared towards increasing output of trained and skilled manpower at the diploma and degree levels to meet national manpower requirements. During the Plan period, courses at the diploma and degree levels will continue to be reviewed to ensure that the contents and curriculum are relevant to national requirements. More practical training will also be emphasised in the science, engineering and technical courses. Intake into the science courses at the diploma and degree levels will continue to increase so as to achieve the target output of 60% science and 40% arts graduates. Likewise, the intake into courses at the diploma level will also be increased to meet the demand for manpower at the sub-professional level. Programmes for post-graduate studies and research will also be expanded to enable various inter-disciplinary research and studies to be carried out.

1007. Programme for off-campus courses at the USM will be expanded to include courses at the diploma level in computer studies, applied science, education, humanities and social science. To further improve the administration of the programme, regional centres at Alor Setar, Ipoh, Johor Bahru, Kota Kinabalu, Kuala Lumpur, Kuala Trengganu, Kuantan, Kuching and Melaka will be established.

Training programmes

1008. *Skill training.* During the FMP, the MDB will update the National Masterplan for Manpower Development and review the National Apprenticeship Scheme. The Board will also work towards formulating an incentive system for the private sector to carry out training programmes. Facilities and programmes for manpower development in the public and private sectors will also be reviewed with the aim of co-ordinating and improving the labour market requirements.

1009. To increase the effectiveness of training programmes carried out in the various institutions, the private sector, especially the smaller firms, will be encouraged to participate in the apprenticeship training and placement of trainees for in-plant training. With the rapid growth in the industrial sector, the course content of training institutions will need to be reviewed to

meet the needs of industries. Training institutions will also be established in smaller towns throughout the country to cater for the requirements of the local industry and also to provide training opportunities to the local people.

1010. With the completion of the extensions to the ITIs in Kuala Lumpur and Prai and the establishment of new ITIs in Johor Bahru, Kuala Trengganu and Labuan, the number trained will increase from 1,133 in 1980 to 2,175 in 1985. In addition, five new ITIs, each with a training capacity of 400, are also being planned for construction during the FMP. These new ITIs will conduct basic preparatory courses in engineering, electrical and construction trades, trade courses for school dropouts and introductory courses for production workers. In addition, an Advanced Skill Centre to provide training for supervisors, foreman and instructors will be built.

1011. MARA will establish three new *Institusi Perdagangan* MARA at Alor Setar, Kuala Lumpur and Seremban and six new *Institusi Kemahiran* MARA in the Federal Territory, Perlis, Pulau Pinang, Sabah, Sarawak and Trengganu. The *Institusi Kemahiran* will conduct trade courses ranging from construction, electrical, metal works, carpentry, automotive and printing. With the completion of the new institutes, MARA will be able to train a total of 22,360 trainees during the Plan period.

1012. Training capacity will also be increased considerably with the establishment of three new youth training centres now being planned in the Federal Territory, Selangor and Trengganu. Facilities at the two existing centres in Dusun Tua and Pertak will also be expanded. The total output would increase from 1,053 in 1980 to 1,620 in 1985 with the completion of the new youth training centres.

1013. *Management training.* During the FMP, INTAN will give more emphasis on the training needs of agencies in the public sector, particularly personnel of those agencies which play an important role in national development, personnel of agencies in the less-developed states, as well as for officers who are involved with departmental training. With the completion of facilities at its regional campuses in Kemaman, Kluang and Sg. Petani, INTAN would be able to give more emphasis on courses which would meet the requirement of states or regions. The total training capacity for INTAN would increase from 7,000 in 1980 to about 16,000 per year at the end of the Plan period.

1014. NPC will construct regional offices in Johor and Pulau Pinang. With the expansion of its training facilities, NPC will be able to carry out managerial and supervisory training for about 23,300 participants and another 21,200 under the Entrepreneur Development Programme.

IV. ALLOCATION FOR EDUCATION AND TRAINING

1015. The revised allocations and expenditure for education and training during 1971-80 and the allocations for the Plan period are shown in Table 21-4.

TABLE 21-4

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR
EDUCATION AND TRAINING PROGRAMMES, 1971-85

(\$ million)

	Revised SMP allocation, 1971-75	Actual expenditure, 1971-75	Achieve- ment %	Revised TMP allocation, 1976-80	Estimated expenditure, 1976-80	Achieve- ment %	FMP allocation 1981-85
<i>Ministry of Education</i>							
Primary education	828.85	658.64	79.5	1,812.30	1,308.14	72.2	2,243.89
Secondary education	152.86	116.05	75.9	374.49	290.41	77.6	629.75
Technical and vocational education	284.40	219.75	77.3	518.73	389.86	75.2	544.52
Higher technical education	45.46	34.75	76.4	45.84	42.75	84.1	115.00
<i>Kolej Tunku Abdul Rahman</i>	7.70	6.98	90.7	27.69	17.37	67.6	16.80
	8.50	2.56	30.1	6.20	3.92	63.2	12.40
<i>Institut Teknologi MARA</i>	124.66	122.34	98.1	59.70	36.78	61.6	105.00
<i>Universiti Malaya</i>	17.28	11.29	65.3	34.60	23.10	66.8	38.00
<i>Universiti Sains Malaysia</i>	25.00	21.97	87.9	99.62	51.82	52.0	101.50
<i>Universiti Kebangsaan Malaysia</i>	40.00	34.29	85.7	224.17	179.89	80.3	153.40
<i>Universiti Pertanian Malaysia</i>	48.44	38.48	79.4	120.64	73.66	61.1	136.80
<i>Universiti Teknologi Malaysia</i>	9.55	4.37	45.8	75.39	62.49	82.8	121.90
Teacher training	12.56	6.98	55.6	112.07	61.94	55.3	84.00
Other programmes	52.44	38.83	74.1	113.16	74.15	65.5	184.82
<i>Other agencies</i>	51.10	38.95	76.2	335.33	236.99	70.7	744.14
Ministry of Labour and Manpower ⁹	4.98	3.55	71.3	26.78	8.43	31.5	41.40
MARA Training Division	38.70	33.08	85.5	275.01	214.12	77.9	660.54
<i>Institut Tadbiran Awam Negara</i>	4.00	0.50	12.5	26.34	12.77	48.5	34.00
Ministry of Culture, Youth and Sports ¹⁰	3.42	1.82	53.2	7.20	1.67	23.2	8.20
TOTAL	879.95	697.59	79.3	2,147.63	1,545.13	71.9	2,988.03

⁹ Allocation for Industrial Training Institutes only.¹⁰ Allocation for Youth Training Centres only.

CHAPTER XXII

Housing

I. INTRODUCTION

1016. The objective with regard to housing is to ensure that all Malaysians, in particular the low income group, will have access to adequate housing. To meet this objective, the housing programmes in urban areas will be accelerated with particular emphasis given to low-cost housing. In the rural areas, emphasis will be given to improving the quality of houses in existing villages and providing them with adequate amenities, such as water supply, electricity and sanitation facilities. In addition, low-cost houses will be constructed in land schemes.

1017. Measures will continue to be taken to bring housing within the means of the people, particularly the low income group. These measures include innovations in the planning and design of houses without sacrificing reliability and durability.

II. PROGRESS, 1971-80

1018. The 1970 Population and Housing Census indicated that there were 1.6 million private living quarters¹ in Peninsular Malaysia in 1970. The number of households in an occupied dwelling unit was 1.23 in urban areas and 1.03 in rural areas, giving an average of 1.082. This average figure shows that the housing stock in 1970 was broadly adequate to house the population in Peninsular Malaysia and was within the United Nation's norm of 1.5 households per unit. The Census also indicated that 43.7% of the occupied private living quarters were served with electricity, 47.5% with piped water, 18.6% with flush toilets and 61.3% with other sanitation facilities.

1019. In 1980, based on the preliminary count of the 1980 Population and Housing Census, there were 2.63 million private living quarters, of which 2.21 million were in Peninsular Malaysia, 184,600 in Sabah and 230,500 in

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Sarawak. The average density was 1.077 households per occupied private living quarter for Peninsular Malaysia, 1.1 for Sabah and 1.09 for Sarawak. These statistics show that the housing situation improved slightly during the decade for Peninsular Malaysia and was adequate to accommodate the population in Sabah and Sarawak. This favourable position was attributable to the overall good performance of the economy and to the incentives provided by the Government to accelerate housing construction by the private sector such as easier credit facilities and favourable conditions for approval of licences and permits for housing development.

1020. During the decade, however, rapid urban in-migration resulted in growth of squatter areas in major towns which were characterised by high density and inadequate amenities. This situation was more acute in the Federal Territory where squatters constituted at least 24% of the total population.

1021. Of the 744,000 units built during the decade, the public sector accounted for 207,590 units and the private sector the remaining 536,410 units. Table 22-1 shows the data on houses built during the decade.

TABLE 22-1

MALAYSIA: PUBLIC AND PRIVATE SECTOR HOUSING PERFORMANCE, 1971-80

<i>Public sector</i>	<i>Number of units completed 1971-75</i>	<i>Number of units completed 1976-80</i>	<i>Number of units under various stages of implementation 1976-80</i>
Public low-cost housing scheme	13,244	26,250	54,490
Federal agencies and regional development authorities housing programmes (FELDA, FELCRA, DARA, KEJORA, KETENGAH, Sarawak and Sabah Land Development Boards and <i>Jabatan Orang Asli</i>)	41,965	36,770	36,210
Institutional quarters and other staff accommodation	24,240	20,560	27,500
Medium and high-price housing programmes	6,627	37,930	32,380
Sub-total	86,076	121,510	150,580
<i>Private sector</i>			
Private developers	64,862	199,490	49,470
Cooperative societies	3,585	4,120	5,260
Individual and groups	105,287	159,070	—
Sub-total	173,734	362,680	
TOTAL	259,810	484,190	

Public sector housing

1022. During the decade, the emphasis was on the development of housing for low income group, settlers in land development schemes and some categories of public sector employees. The target groups for low-cost housing were defined as households earning less than \$500 per month in Peninsular Malaysia and less than \$700 in Sabah and Sarawak. To bring housing within the means of these target groups, the costs of the houses were established at about \$12,500 per unit for flats and \$8,500 per unit for terrace, cluster and other types of houses in Peninsular Malaysia and about \$10,000 per unit in Sabah and Sarawak. These low-cost houses were built by state governments and *Dewan Bandaraya* with subsidised Federal loans. The National Housing Department, established in 1974 provided supervisory and technical expertise to state governments on their request.

1023. A number of measures was adopted to keep the costs of houses within these limits. These included higher density construction, reducing built-up areas to a maximum of 51 sq. metre for flats and 69 sq. metre for other types, reducing the frontage and the standard of infrastructure facilities as well as economising on the quality of finish. Various designs were experimented, including cluster link houses, cluster terrace houses, sites and services, low-rise-medium-density compact houses and timber terrace houses.

1024. At the end of 1980, 39,490 units were completed compared with the target of 110,320 units. In addition, another 54,490 units, initiated in the later part of the decade, were in various stages of implementation.

1025. Houses for settlers in land development schemes formed an integral part of land development projects. Most of these low-cost houses were made of wood. During the decade, it was estimated that 78,740 units were completed, of which 44,090 units were constructed by Federal Land Development Authority (FELDA), 1,100 by Federal Land Consolidation and Rehabilitation Authority (FELCRA), and the remaining by Pahang Tenggara Development Authority (DARA), Johor Tenggara Development Authority (KEJORA), Trengganu Tengah Development Authority (KETENGAH), Sabah and Sarawak Land Development Boards and *Jabatan Orang Asli*. Another 36,210 units were under various stages of implementation.

1026. Institutional quarters were provided for some categories of Government employees posted to remote areas or whose duties require them to be close to their place of work. During the decade, 44,800 units were completed and 27,500 units were under various stages of implementation.

1027. Medium and high-price houses were built by Urban Development Authority (UDA), Government Officers' Housing Company and State Economic Development Corporations (SEDCs). During the decade, SEDCs developed 28,250 units while 17,490 units were under construction. UDA, in association with private sector, completed 8,910 units while 5,440 units were under various stages of construction.

1028. To improve housing conditions in rural areas, the Government, apart from providing amenities, launched the *Kampung Rehabilitation Programme* in 1979. Under this programme, material assistance amounting to \$1,000 per unit was provided to improve deteriorating and dilapidated houses on *gotong royong* basis. About 28,900 houses in 885 villages benefitted from this programme.

Private sector housing

1029. Private sector housing expanded rapidly during the decade, reflecting strong demand for housing generated by rapid economic and social development. A total of 2,265 advertising permits were issued to private developers for the development and sale of 313,820 housing units. Of this, 232,690 units were approved during the second half of the decade, reflecting the momentum in housing construction during the Third Malaysia Plan (TMP) period. An estimated 29% of these houses were in the Federal Territory, 23% in Johor, 11% in Selangor, 11% in Perak and 7% in Pulau Pinang. During the decade, 264,350 units were completed. Another 49,470 units were under various stages of implementation.

1030. Most houses constructed by private developers were in the medium and high-price category, and about 70% of those approved during the second half of the decade were single and double-storey terrace houses which were in great demand. The prices of all types of houses increased substantially during the decade, particularly in the Federal Territory, Pulau Pinang and certain areas in Selangor. These increases were mainly due to increases in effective demand and the costs of land, building materials and labour.

1031. Housing cooperative societies completed 7,700 units of houses. In addition, 264,360 units were estimated to be constructed by individuals and groups.

Financing

1032. To meet the objective of providing adequate housing, financing at reasonable terms was made available, through the provision of funds to Ministries, agencies and the Malaysia Building Society Berhad (MBSB), mainly for low-cost housing. In addition, finance was provided by banking and financial institutions in accordance with guidelines provided by *Bank Negara Malaysia*.

1033. The Government, through its agencies provided both bridging and end financing for housing at concessionary terms, particularly for low-cost housing. In 1977, the rate of interest on loans provided to the state governments for low-cost housing was fixed at 4% per annum with a repayment period of 20 years. The state governments were directed to relend to house buyers at a rate not exceeding 5.5% per annum. In 1978, the repayment period was extended to 25 years. During the period, the total loans for housing provided to state governments and the *Dewan Bandaraya* amounted to \$684.8 million.

1034. A revolving fund of \$10 million was set up to provide housing loans up to \$7,500 at an interest rate of 5.5%, repayable within 25 years. This scheme catered for the needs of individual Malaysian owning small lots within a certain radius from his place of work or an industrial estate, residents of New Villages, estate and mine workers and squatters directly affected by development projects. At the end of 1980, \$4.1 million was approved to construct 636 housing units.

1035. At the end of 1976, the Government launched another financing scheme through the MBSB for houses costing below \$20,000 per unit. The scheme provided loans at an interest rate of 5.5% per annum, repayable within 20 years. Preference was given to houses costing about \$12,000 per unit. Contributors to the Employees Provident Fund (EPF) and other Malaysians earning less than \$500 per month were eligible for loans under this scheme. The scheme was financed jointly by *Bank Negara Malaysia* and EPF with an initial loan of \$400 million provided to MBSB. At the end of 1980, MBSB approved a loan commitment of \$403 million for 27,410 units of low-price houses.

1036. In 1970, a housing loan scheme was instituted to assist public sector employees to own houses. These loans were provided at 4% interest rate, repayable within 15 years. In 1980, the period was extended to 25 years. To facilitate the acquisition of houses by public sector employees, the

Government Officers' Housing Company was formed in 1971 and at the end of 1980, the Company completed 6,020 houses. The loan extended to public sector employees amounted to \$1,476.3 million.

1037. Housing was accorded priority for bank lending. In 1976, *Bank Negara Malaysia* introduced guidelines requiring commercial banks and finance companies to channel at least 10% and 25% respectively, of the net increases in their loans and advances as housing loans to individuals. For loans not exceeding \$200,000², the maximum interest rate chargeable was 10% per annum. From 1977, the interest rate on new loans was further reduced to either 9% or 1.5% per annum above the prime rate, whichever was lower. These measures resulted in a significant increase in the amount of loans approved by commercial banks and finance companies, which rose from \$107 million outstanding at the end of 1970 to \$2,797.9 million at the end of 1980.

III. PROGRAMMES, 1981-85

1038. The objective to provide access to housing for every Malaysian will be pursued during the Fourth Malaysia Plan (FMP). Special emphasis will continue to be given to low-cost housing to cater for the low income group. While the public sector will continue to play a significant role, the private sector is also expected to be more actively involved in the provision of low-cost housing.

1039. It is estimated that about 923,300 units of houses will be required during the 1981-85 period. Of these, an estimated 365,300 units are required to cater for the increasing population, 273,600 units to meet the needs for replacement and 284,400 units to cover the backlog in housing stock. Urban population is estimated to be about 35% in 1980 and 38% in 1985. Out of the 923,300 units required during the FMP, urban requirement is estimated to be 337,000 units, constituting about 36.5% of the total.

1040. The National Consultative Council on Housing, launched in early 1980, representing both the public and private sectors, will provide the forum for continuous dialogue with regard to finding solutions to problems affecting the housing industry. This task will be supplemented by research and data analysis undertaken by the Research Section in the Ministry of Housing and Local Government, which in the FMP will be expanded to form the National Housing Research Department.

1041. During the FMP, with the objective of optimising use of land and enhancing quality of life, the Government will implement low-cost housing schemes based on the condominium concept. Under this concept, a number

² The ceiling has been reduced to \$100,000 in October 1978.

of three storey walk-up flats will be clustered together to be linked by walkways and provided with amenities such as shops, playgrounds and community centres. In high density areas such as the Federal Territory, high rise flats will continue to be constructed but on the concept of condominium. It is expected that the average cost of a low-cost housing unit will be in the region of \$14,000, excluding the cost of infrastructure development. Under the new concept, houses will be rented out to the beneficiaries for a period of 25 years. The tenants will be given the option to purchase the houses subject to the condition, among others, that they have stayed in these houses continuously over a period of ten years.

1042. In addition, the Government will introduce measures directed towards increasing the stock of houses, which include:

- (i) increasing the amount of revolving fund from \$5 million to \$20 million to each state government to enable it to finance preliminary works such as land acquisition, site preparation and infrastructure development;
- (ii) setting up a State Liaison Committee in each state which will be responsible for the implementation of the low-cost housing scheme;
- (iii) requiring the private sector to reserve between 30-50% of its housing development for the condominium concept of low-cost housing. To ensure these houses reach the target group the Government will participate in their distribution or in some cases may purchase them for eventual distribution;
- (iv) introducing some form of prefabrication or industrialised system of construction in the low-cost housing schemes to save time and cut cost;
- (v) ensuring the adequate supply and smooth flow of funds;
- (vi) ensuring adequate supply and proper distribution of building materials;
- (vii) ensuring adequate supply of semi-skilled and skilled construction workers and supervisory and managerial staff; and
- (viii) exempting from custom duties for the importation of equipment and machinery and selected construction materials.

1043. The Government, in addition to expansion of training facilities at MARA, Industrial Training Institute and National Productivity Centre, will also provide incentives for three month on-site training schemes to be undertaken by trainers provided by the contractor or developer. The incentives comprise an allowance for trainer and a double deduction for income tax purposes for all expenses incurred by the developer or contractor for this purpose.

1044. The public sector housing programme will constitute 43.2% of total construction to be undertaken during the Plan period. As shown in Table 22-2, the public sector will construct 176,500 units of low-cost houses to cater for households earning not more than \$750 per month, including for workers in industrial estates, residents of New Villages and workers in estates; 110,010 units houses for settlers in land development schemes; 58,500 units institutional quarters and 53,560 units medium and high-price houses, giving a total of 398,570 units.

TABLE 22-2

MALAYSIA: PUBLIC AND PRIVATE SECTORS HOUSING PROGRAMMES, 1981-85

<i>Public Sector</i>	<i>Continuation projects (units)</i>	<i>New projects (units)</i>	<i>Total (units)</i>
Public low-cost housing scheme	54,490	122,010	176,500
Federal agencies and regional development authorities housing programmes (FELDA, FELCRA, DARA, KEJORA, KETENGAH, Sarawak and Sabah Land Development Boards and <i>Jabatan Orang Asli</i>)	36,210	73,800	110,010
Institutional quarters and other staff accomodation	27,500	31,000	58,500
Medium and high-price housing programmes	32,380	21,180	53,560
Sub-total	150,580	247,990	398,570
<i>Private sector</i>			
Private developer low-cost housing	—	90,000	90,000
Private developer medium and high-price housing	49,470	210,000	259,470
Cooperative societies	5,260	20,000	25,260
Individual and groups	—	—	150,000
Sub-total			524,730
TOTAL			923,300

1045. The private sector is expected to build about 524,730 units or 56.8% of total Plan target. Private developers are expected to build 349,470 units of which 90,000 are in the low-cost category. Individuals and groups are envisaged to build another 150,000 units.

1046. To enhance living condition and quality of environment, priority will be accorded to the provision of open spaces for community services and recreational facilities, particularly in housing estates. The formulation of structure plans and local plans, as provided under the Town and Country Planning Act, 1976, sets out planning policies and framework of a town, details of land allocation including zoning, density and lay-out

plans whilst placing more importance to positive environmental planning. In addition, efforts will be made to beautify urban centres, particularly Federal Territory, through improvement of existing parks and gardens; developing new parks, planting trees along roadsides and encouraging housing developers to plant vegetation in newly developed areas.

IV. ALLOCATION FOR HOUSING DEVELOPMENT

1047. Total initial allocation for housing to be undertaken by the public sector is \$3,399.12 million, the breakdown of which is shown in Table 22-3.

TABLE 22-3

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR
HOUSING PROGRAMMES, 1971-85

(\$ million)

Public Sector	Revised SMP allocation 1971-75	Actual expenditure 1971-75	Achieve- ment %	Revised TMP allocation 1976-80	Estimated expenditure 1976-80	Achieve- ment %	FMP allocation 1981-85
Public low-cost housing scheme	98.24	91.19	92.8	640.09	441.56	69.0	1,000.00
Other low-cost housing scheme	—	—	—	76.40	34.47	45.1	39.00
Federal agencies and regional development authorities housing programmes (FELDA, FELCRA, DARA, KEJORA, KETENGAR, Sarawak and Sabah Land Development Boards and <i>Jabatan Orang Asli</i>)	94.15	91.36	97.0	208.40	145.91	70.0	357.70
Institutional quarters and other staff accommodation	673.52	524.30	77.8	928.90	585.47	63.0	500.00
Medium and high-price housing programmes	352.42	263.16	74.7	1,341.40	802.10	59.8	1,502.42
TOTAL	1,218.33	970.01	79.6	3,195.19	2,009.51	62.9	3,399.12

CHAPTER XXII

Housing

I. INTRODUCTION

1016. The objective with regard to housing is to ensure that all Malaysians, in particular the low income group, will have access to adequate housing. To meet this objective, the housing programmes in urban areas will be accelerated with particular emphasis given to low-cost housing. In the rural areas, emphasis will be given to improving the quality of houses in existing villages and providing them with adequate amenities, such as water supply, electricity and sanitation facilities. In addition, low-cost houses will be constructed in land schemes.

1017. Measures will continue to be taken to bring housing within the means of the people, particularly the low income group. These measures include innovations in the planning and design of houses without sacrificing reliability and durability.

II. PROGRESS, 1971-80

1018. The 1970 Population and Housing Census indicated that there were 1.6 million private living quarters¹ in Peninsular Malaysia in 1970. The number of households in an occupied dwelling unit was 1.23 in urban areas and 1.03 in rural areas, giving an average of 1.082. This average figure shows that the housing stock in 1970 was broadly adequate to house the population in Peninsular Malaysia and was within the United Nation's norm of 1.5 households per unit. The Census also indicated that 43.7% of the occupied private living quarters were served with electricity, 47.5% with piped water, 18.6% with flush toilets and 61.3% with other sanitation facilities.

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- (viii) exempting from custom duties for the importation of equipment and machinery and selected construction materials.

1043. The Government, in addition to expansion of training facilities at MARA, Industrial Training Institute and National Productivity Centre, will also provide incentives for three month on-site training schemes to be undertaken by trainers provided by the contractor or developer. The incentives comprise an allowance for trainer and a double deduction for income tax purposes for all expenses incurred by the developer or contractor for this purpose.

1044. The public sector housing programme will constitute 43.2% of total construction to be undertaken during the Plan period. As shown in Table 22-2, the public sector will construct 176,500 units of low-cost houses to cater for households earning not more than \$750 per month, including for workers in industrial estates, residents of New Villages and workers in estates; 110,010 units houses for settlers in land development schemes; 58,500 units institutional quarters and 53,560 units medium and high-price houses, giving a total of 398,570 units.

TABLE 22-2

MALAYSIA: PUBLIC AND PRIVATE SECTORS HOUSING PROGRAMMES, 1981-85

<i>Public Sector</i>	<i>Continuation projects (units)</i>	<i>New projects (units)</i>	<i>Total (units)</i>
Public low-cost housing scheme	54,490	122,010	176,500
Federal agencies and regional development authorities housing programmes (FELDA, FELCRA, DARA, KEJORA, KETENGAH, Sarawak and Sabah Land Development Boards and <i>Jabatan Orang Asli</i>) .. .	36,210	73,800	110,010
Institutional quarters and other staff accomodation .. .	27,500	31,000	58,500
Medium and high-price housing programmes .. .	32,380	21,180	53,560
Sub-total .. .	150,580	247,990	398,570
<i>Private sector</i>			
Private developer low-cost housing .. .	—	90,000	90,000
Private developer medium and high-price housing .. .	49,470	210,000	259,470
Cooperative societies .. .	5,260	20,000	25,260
Individual and groups .. .	—	—	150,000
Sub-total .. .			524,730
TOTAL .. .			923,300

1045. The private sector is expected to build about 524,730 units or 56.8% of total Plan target. Private developers are expected to build 349,470 units of which 90,000 are in the low-cost category. Individuals and groups are envisaged to build another 150,000 units.

1046. To enhance living condition and quality of environment, priority will be accorded to the provision of open spaces for community services and recreational facilities, particularly in housing estates. The formulation of structure plans and local plans, as provided under the Town and Country Planning Act, 1976, sets out planning policies and framework of a town, details of land allocation including zoning, density, and lay-out

plans whilst placing more importance to positive environmental planning. In addition, efforts will be made to beautify urban centres, particularly Federal Territory, through improvement of existing parks and gardens, developing new parks, planting trees along roadsides and encouraging housing developers to plant vegetation in newly developed areas.

IV. ALLOCATION FOR HOUSING DEVELOPMENT

1047. Total initial allocation for housing to be undertaken by the public sector is \$3,399.12 million, the breakdown of which is shown in Table 22-3.

TABLE 22-3

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR
HOUSING PROGRAMMES, 1971-85

(\$ million)

Public Sector	Revised SMP allocation 1971-75	Actual expenditure 1971-75	Achieve- ment %	Revised TMP allocation 1976-80	Estimated expenditure 1976-80	Achieve- ment %	FMP allocation 1981-85
Public low-cost housing scheme	98.24	91.19	92.8	640.09	441.56	69.0	1,000.00
Other low-cost housing scheme	—	—	—	76.40	34.47	45.1	39.00
Federal agencies and regional development authorities housing programmes (FELDA, FELCRA, DARA, KEJORA, KETENGGAH, Sarawak and Sabah Land Development Boards and <i>Jabatan Orang Asli</i>)	94.15	91.36	97.0	208.40	145.91	70.0	357.70
Institutional quarters and other staff accommodation	673.52	524.30	77.8	928.90	585.47	63.0	500.00
Medium and high-price housing programmes	352.42	263.16	74.7	1,341.40	802.10	59.8	1,502.42
TOTAL	1,218.33	970.01	79.6	3,195.19	2,009.51	62.9	3,399.12

Pharmaceutical, laboratory and radiological support programme

1084. The rapid development of patient care services will be complemented by appropriate expansions in auxillary facilities including *inter alia*, the pharmaceutical laboratory and radiological support services. These will include the construction of new and renovations to present laboratories and stores as well as the provision of new extensions to existing X-ray and other related facilities.

Population health programme

1085. The integrated approach of providing population health services through a package of health services including family planning services, family health care, nutrition, maternal and child health services will be continued during the FMP. This comprehensive integrated family health programme will be extended to all health districts. To further enhance the quality and standard of family health services, a national specialist centre at Kuala Lumpur and four regional specialist centres at Ipoh, Johor Bahru, Kota Bharu and Pulau Pinang to provide specialised and more extensive services will be completed during the Plan period. In addition, 36 urban clinics will be constructed to improve the urban family planning services.

Training programmes

1086. Continued emphasis will be placed on expanding and improving training programmes and facilities with a view to further developing adequate professional and para-medical personnel to meet the projected manpower requirements of the health sector. The overall demand for doctors, taking into account present deficits, is estimated at 1,230. To overcome this shortage and to attain the long-term objective of one doctor per 2,200 population by 1990, the output of doctors will be stepped-up with the increased intake capacity of local training institutions as well as through recruitment of doctors on contract. Post-graduate medical centres set up in the general hospitals at Johor Bahru, Kota Bharu, Kuala Lumpur and Pulau Pinang will provide improved facilities for post-basic training of doctors and other professionals.

1087. Considerable efforts will also be made to increase and upgrade the number of new and existing para-medical personnel such as dentists, pharmacists, nurses, radiographers, medical laboratory technologists, dispensers and public health inspectors. It is estimated that a total of 600 nurses, 600 assistant nurses and 250 retrained midwives will complete their courses at the various training institutions in the country annually. The five regional training centres for assistant nurses, with a yearly intake capacity of 600 trainees, will be completed during the Plan period. In addition, the training of *jururawat desa* will be accelerated at the Rural Health Training Schools in line with the development of the two-tier rural

health programme. A total of five such schools with an annual intake of 180 will be completed during the FMP, three in Peninsular Malaysia, one in Sabah and a combined training complex for junior hospital assistants cum *jururawat desa* in Sarawak. The Dental Nurses Training School in Pulau Pinang will be further expanded to provide training for 50 dental surgery assistants annually. The training school for medical laboratory technologists and junior laboratory assistants will train 750 personnel by the end of 1985.

Research programmes

1088. With the completion of the expansion programme of the Institute of Medical Research (IMR), which included the school for medical laboratory technologists and additional laboratories, the research capacity of the Institute will be further enhanced. During the Plan, the research programmes of the IMR will continue to focus on ecology and control of endemic diseases, investigation of new diseases previously thought not to exist in the country namely schistosomiasis, development of new diagnostic procedures for blood, genetic and infectious diseases and assessment of new drugs for treatment and control of diseases. The National Leprosy Control Centre at Sungai Buloh will consolidate and further intensify its research efforts in combating the disease.

Social welfare services

1089. Due to the increasing need for welfare and community services for the disadvantaged groups in society, the Government will continue to expand and improve existing social welfare programmes and facilities. With regard to rehabilitation services to the handicapped, seven new centres, in addition to three continuation projects, will be established to provide treatment, aftercare, supervision and vocational training facilities. Apart from completing three projects carried over from the TMP for the aged and destitute, an additional old persons' home at Kangar and a vagrants' centre at Ulu Langat will be implemented. Under the rehabilitation and reformatory programmes, the completion of two women and girls' protection homes and the establishment of ten remand and probation homes will also be undertaken.

1090. During the Plan period, programmes and activities to alleviate drug abuse are aimed at providing additional services as well as consolidating and making further improvements to existing facilities and services. As part of the normal treatment and rehabilitation of drug addicts, the Ministry of Welfare Services proposes to set up half-way houses and day-care centres in order to provide regular follow-up supervision and consultation.

1091. Community-based services, initiated in the latter half of the TMP, to assist individuals and local communities to adjust to social developmental changes will be further pursued. Additional community base centres in high density population areas for the urban youth, working women and girls and local communities will be set up.

1092. A residential training centre at Sungai Buloh for in-service training of personnel from the Ministry of Welfare Services as well as those from voluntary welfare bodies, will be completed within the Plan period. For this project, a sum of \$2.7 million is provided.

IV. ALLOCATION FOR HEALTH, FAMILY HEALTH AND WELFARE PROGRAMMES

1093. Table 23-2 shows the FMP allocation for health, family health services and welfare programmes.

TABLE 23-2

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR HEALTH AND WELFARE PROGRAMMES, 1981-85

(\$ million)

Programmes	Revised SMP allocation 1971-75	Actual expenditure	Achievement %	Revised TMP allocation 1976-80	Estimated Expenditure	Achievement %	FMP allocation 1981-85
<i>Public Health Services</i>	44.93	37.92	84.4	111.70	66.07	59.2	122.23
Promotion of health and sanitation—							
Rural health services	43.44	36.88	84.9	110.53	65.54	59.3	120.41
Control of communicable diseases—							
Tuberculosis control programme	0.96	0.71	73.9	0.71	0.29	40.9	1.30
Leprosy control programme	0.53	0.33	62.3	0.46	0.24	52.2	0.52
<i>Patient Care Services</i>	129.22	110.48	85.5	285.41	166.40	58.8	346.85
New Hospitals	74.31	67.27	90.5	155.16	89.77	57.9	199.35
Hospital extensions and improvements	54.91	43.21	78.7	130.25	76.63	58.8	147.50
<i>Dental Health Services</i>	3.91	2.35	73.7	6.69	3.96	59.2	10.16
<i>Training Programmes</i>	79.95	17.39	87.2	33.42	16.15	48.3	29.88
Para-medical	12.17	9.64	79.2	33.19	15.92	48.0	29.88
Post graduate	7.78	7.75	99.6	0.23	0.23	100.0	—
<i>Applied Food and Nutrition Programme</i>	—	—	—	10.00	7.30	73.0	15.10
<i>Other Health Programmes</i>	15.72	13.01	82.7	45.55	29.30	63.7	49.32
<i>Population and Family Health Programme</i>	5.81	2.09	35.9	46.49	25.36	54.6	30.00
<i>Total health and population health programmes</i>	218.82	183.24	83.7	539.26	314.54	58.3	603.54
<i>Welfare programmes</i>	12.75	8.97	70.4	28.47	11.75	41.3	53.73
GRAND TOTAL	231.57	192.21	83.0	567.73	326.29	57.7	657.27

Other Health Programmes includes hostels, institutional quarters, vehicles etc.

Culture, Community Development, Security and General Administration

I. PROGRESS, 1971-80

Culture

1094. *Cultural activities.* Impetus for the development of a national culture was provided by the National Congress on Culture held in 1971. The Congress resolved that the basis of a national culture was the indigenous culture as well as elements of other cultures which could be woven into the national culture. Research was carried out into various aspects of culture, including history and tradition, as a method of understanding the various racial traits so that their best features could be woven into the fabric of a national culture. Courses and workshops on activities relating to culture, which included performing arts, continued to be conducted. The number of participants increased from about 4,000 in 1970 to about 20,000 in 1980. In addition, various cultural shows and exhibitions were held. At state and district levels, cultural activities were coordinated through the *Majlis Kebudayaan Negeri* and *Majlis Kebudayaan Daerah*. At national level, 25 cultural organizations were formed with a membership of about 250,000. With these activities, there were greater interaction and understanding among the ethnic groups.

1095. *Museum.* *Muzium Negara*, the official repository of the country's cultural and natural history, helped to inculcate a sense of belonging and awareness of the country's heritage among the general public. This was made possible through research on and display of various items of interest relating to the country's history, culture, and flora and fauna. The museum undertook control and preservation of historical monuments, archaeological sites and remains, antiquities and historical objects. During the decade, it excavated 12 and restored eight historical sites in the Lembah Bujang area in Kedah. In 1979, a site museum, *Muzium Arkeologi Lembah Bujang* was constructed to display artefacts excavated in the area. Excavation and restoration works on historical sites were also carried out in Dengkil, Ulu Kelantan, Ulu Tembeling and Ulu Trengganu. Under the Antiquities Act,

1976, Fort Cornwallis in Pulau Pinang, *Istana Lama Sri Menanti* in Negri Sembilan, as well as 169 graves of warriors and of well-known personalities were preserved and restored. Ninety monuments, including *Kota Kuala Kedah* in Kedah, *Kota Malawati* in Selangor and the Stadthuys building in Melaka, were gazetted as national monuments. Various collections such as traditional musical instruments, weapons, ceramics, textiles, jewellery, pottery, cultural materials and specimens of natural history were acquired by *Muzium Negara*. In 1980, about 1,933,917 people visited *Muzium Negara* compared with about 1,610,620 in 1970. During the decade, an average of 2,931,134 people visited *Muzium Negara* annually.

1096. *Public libraries and archives*. During the decade, public libraries were established by state governments in every state capital, in addition to 61 branch libraries in smaller towns and 18 mobile libraries in rural areas. The site for the National Library building in Kuala Lumpur was acquired in 1979 and planning for the construction of public libraries in Alor Setar, Kangar, Kota Bharu and Melaka was started. The construction of a permanent building for the National Archives in Kuala Lumpur began in 1977. The design for Tun Abdul Razak Memorial Library (PINTAR) in Kuantan was completed.

Community Development

1097. The main objective of community development programme was to inculcate in society values oriented towards development and self-reliance. The programme was carried out by a number of agencies such as the Community Development Division of the Ministry of Agriculture (KEMAS), Federal Land Development Authority (FELDA), Rubber Industry Smallholders' Development Authority (RISDA) and Farmers' Organization Authority (FOA). The activities carried out by KEMAS included organising classes in basic and functional literacy and teaching of vocational skills. During the decade, 11,393 literacy classes and 2,596 work-oriented classes for 47,157 students in tailoring, auto-mechanics, radio repair and other skills were held. In addition, the programme included family development classes to impart knowledge on home economics, nutrition, health education, family health and hygiene as well as the establishment of rural libraries. A total of 1,020 pre-school centres for 26,201 children were established.

1098. FELDA, under its community development programme, established 154 *Gerakan Persatuan Wanita*, 103 *Persatuan Belia*, 287 *Taman Didikan Kanak-kanak* (TADIKAN) and seven mobile libraries. In addition, FELDA set up two hostels, one in Kuala Lumpur and one in Kuantan, to accommodate children of settlers studying in secondary schools. RISDA set up 43 *Taman Bimbingan Kanak-kanak* (TABIKAN) and 33 *Perkumpulan Wanita Pekebun Kecil* as well as 31 hostels for children of rubber smallholders in the smaller towns of Peninsular Malaysia. The FOA initiated its community development programme through the women members of

farmers' cooperatives. The projects under this programme included tailoring, cottage industries and livestock rearing. At the end of 1980, 3,252 cooperative members were engaged in these projects.

1099. *Youth*. During the decade, various programmes were provided to help youth to be disciplined, productive, and self-reliant. The youth training centres at Dusun Tua and Pertak emphasised vocational and technical training, motivation, discipline, leadership and entrepreneurship. During the decade, a total of 5,503 completed training in various vocational trades, while 3,455 others were trained through on-the-job training schemes. The youth leadership course also provided training in club management and administration at district, state and national levels. At the end of 1980, more than 18,000 youth participated in this programme. In terms of economic development programme for youth, 1,207 youth-in-business projects were undertaken by 1,420 young entrepreneurs and 2,585 youth farm projects by 14,400 young farmers.

1100. *Sports*. The development of sports was directed towards building a healthy community and promotion of national unity. It also enhanced national image through high standard of performance by Malaysians at national and international meets. Sports facilities were expanded during the decade. National sports organizations were provided with financial assistance for training programmes and holding of major national and international tournaments.

1101. *Orang Asli*. In order to promote the welfare of *Orang Asli* and permit their integration into the mainstream of development, various measures were undertaken during the decade. These included the provision of land and basic facilities such as education, health, water supply and electricity. An estimated 5,951 hectares of land were developed for agriculture benefitting 1,270 *Orang Asli* families mainly in Banun, Betau, Betis, Dala and Kemar. Eight cooperative shops, two processing centres and three handicraft workshops were established by Jabatan *Orang Asli*.

Security

1102. *Armed forces and police*. During the decade, the armed forces and police were expanded to upgrade their capability to safeguard the security of the nation. Apart from acquiring modern equipment, the capability of both forces were improved through the provision of better training facilities, including joint exercises.

1103. *Ikatan Relawan Rakyat (RELA)* was established in 1972 to assist the security forces to safeguard the nation. Its main function was to provide area security surveillance particularly at strategic locations. The *Rukun Tetangga* was launched in 1972 to foster a sense of peaceful living among the multi-racial residents in gazetted areas by maintaining order and friendly atmosphere as well as to provide security surveillance on a sector basis. By the end of 1980, about 800 *Rukun Tetangga* sectors were established involving a force of 800,000.

1104. The *prisons* at Air Kroh, Alor Setar, George Town, Johor Bahru, Kota Bharu, Melaka and Taiping were expanded to relieve congestion. In addition, new prisons at Miri, Sibul, Simanggang and detention camps at Kuching and Taiping were completed, while renovation works to the prison at Seremban and Protective Custody Centre in Taiping were also undertaken.

1105. The *Immigration Department* was expanded to improve its services and to enable it to control and regulate the entry of foreigners more effectively through the establishment of additional entry points and purchase of more launches.

1106. *Fire services.* By 1980, the construction of three fire stations in Kuala Lumpur and one in Pulau Pangkor was completed. A total of 72 fire engines were purchased including 43 water tenders, 14 emergency rescue tenders, 14 skylifts and one turntable ladder. A Central Fire Training School with the objective of increasing the capability and efficiency of the fire services personnel and capable of training 140 fire services personnel a year was completed in 1975 at Kuala Kubu Baru. Fire safety regulations were tightened with the enactment of the Uniform Building By-laws and Local Government Act in 1976 in which necessary fire prevention requirements were upgraded, particularly for high-rise buildings.

General Administration

1107. *Government buildings.* During the decade, Government machinery at federal, state and district levels expanded, leading to greater demand for office accommodation. An extensive buildings programme to cater for this expansion was launched. Large complexes which included *Wisma Tani*, *Wisma Keramat*, and Jalan Duta Complex were completed during the period. New buildings to house the lower, sessions and high courts were constructed to replace old buildings. Court buildings which had inadequate facilities were renovated. In addition, preliminary work for the renovation of *Bangunan Sultan Abdul Samad* to house the Federal Court was started. The Customs Department was provided with 39 new offices at various points namely airports, ports and other gazetted entry points. Institutional quarters for the uniformed staff were also constructed. Four new Road Transport Department offices were constructed at Alor Setar, Ipoh, Muar and Petaling Jaya. The construction of a new office at Kuala Trengganu was also started. A total of 19 buildings were acquired for our embassies and official residences. In addition, renovation works on 12 other missions were also undertaken.

1108. *Information and broadcasting.* The mass media programmes were designed primarily to inform, educate and entertain the people. Major broadcasting service projects completed during the decade included Radio House Complex, Tun Abdul Razak Institute of Broadcasting (IPTAR) to

train various information and broadcasting personnel, regional centres and the inauguration of simultaneous telecast services in 1975 linking Peninsular Malaysia with Sabah and Sarawak. The Department of Information, through its local and state offices, conducted civic courses as part of its functions to disseminate information and educate the people. The participants in these courses increased from 157,787 in 1971 to about 944,748 in 1980.

1109. The coverage of radio transmission to the rural population increased from 85% in 1970 to 90% in 1980 in Peninsular Malaysia, from 75% to 95% in Sabah and from 30% to 55% in Sarawak. Television transmission to rural areas increased from 80% in 1970 to 85% in 1980 in Peninsular Malaysia, from 0% to 95% in Sabah and from 0% to 65% in Sarawak. A major development was the introduction of colour television in 1978.

1110. *Filem Negara* specialised in producing documentary films, a number of which won international acclaim. Steps were already taken to expand its technical facilities such as colour film laboratory and sound recording system for colour productions.

1111. *Berita Nasional Malaysia* (BERNAMA), the national news agency established in 1967, provided wide coverage of domestic and international news in the country. It acquired permanent premises in Ipoh, Johor Bahru, Kota Bharu, Miri and Manila during the latter part of the TMP period.

1112. *Social security*. The Social Security Organization (SOCSO), established in January 1971, administered the Employment Injury and the Invalidity Pension Schemes. By the end of 1980, the two schemes had covered 31 centres in Peninsular Malaysia and one each in Sabah and Sarawak, providing protection to about 1.8 million employees compared with 226,394 in 1972. During the decade, cash benefits amounting to about \$16.7 million were paid to 78,549 beneficiaries, while about 338,000 employees received medical benefits amounting to nearly \$6 million. In 1980, the schemes were extended to workers in estates and mines and other rural workers in Peninsular Malaysia and the two existing centres in Sabah and Sarawak.

1113. *Services to kampung and New Villages*. In 1979, a *Kampung* Rehabilitation Programme was launched to provide material assistance for improvement of houses and coordinate the provision of basic amenities. By the end of 1980, about 885 *kampung* benefitted from this programme. For New Villages, various programmes were implemented to improve facilities such as roads, water supply, electricity, drainage and recreational facilities. By the end of 1980, an estimated 83.4% of houses in New Villages were served with piped water, 91.9% with electricity and 45.6% with modern sanitation.

1114. *Zoo and wildlife protection*. The protection of wildlife which previously rested with state governments, came under the responsibility of the Federal Government with the enactment of the Wildlife Protection Act, 1976. *Jabatan Perhilitan* established 65 acres of wildlife feeding areas mainly in the Krau Game Reserve and in *Taman Negara*, deer farms in the Krau

and Sungkai Game Reserves and a *seladang* management project at the Krau Game Reserve. Facilities at *Taman Negara* were expanded and improved. *Pusat Kajian Alam Semulajadi* was established at Kuala Atok, *Taman Negara* to educate the public on the purpose and need for the conservation of wildlife. *Zoo Negara* was given financial assistance to extend the lion and deer parks, elephant enclosure, and to establish a quarantine area.

1115. *Local Government*. In 1970, there were 327 local authorities governed by separate by-laws and regulations. To ensure uniformity of law and policy, three local government legislations, namely the Street, Drainage and Building Act, 1974, the Local Government Act, 1976, and the Town and Country Planning Act, 1976, were promulgated. The restructuring of local authorities into more viable and effective units was started in 1978. The target of the restructuring exercise was to reduce the number of local authorities from 327 to 100, consisting of 14 municipal councils and 86 district councils. By the end of 1980, a total of 14 municipal councils and 68 district councils were formed. Launching and annual grants were provided to enable the restructured local authorities to service their enlarged areas more effectively.

II. PROGRAMMES, 1981-85

Culture

1116. *Cultural activities*. During the Fourth Malaysia Plan (FMP), efforts will be intensified for further consolidation and enrichment of the national culture. Such efforts include research into indigenous culture and other cultures prevailing in the country to enrich the national culture. Four new projects namely the Museum of Arts, the National Academy of Fine Arts, the National Culture Complex and the National Theatre will be implemented. The National Academy of Fine Arts will offer courses in music, dances, literature and cinematography. The National Theatre will provide the venue for performances such as dramas, concerts and music. The National Culture Complex will be the centre for group activities on various aspects of national culture, including performing arts.

1117. *Museum*. *Muzium Negara* will continue to restore, preserve and conduct research on historical monuments and carry out excavation works in Lembah Bujang in Kedah, Ulu Tembeling in Pahang, Dengkil in Selangor and other archaeological sites which are of historical importance. A National Historical Museum will be established in Kuala Lumpur to facilitate research into the historical development of the nation as well as to exhibit items of historical interest. Facilities at *Muzium Negara* will be expanded to include a planetarium. The allocation provided for these projects is \$14 million.

1118. *Public libraries and archives*. An allocation of \$29.5 million is provided for the National Library in Kuala Lumpur, public libraries in Kedah, Kelantan, Melaka and Perlis, 11 branch libraries in the districts

and 20 mobile libraries. An allocation of \$12.2 million is provided for construction of PINTAR, establishment of a microfilm centre at the National Archives Headquarters, construction of a branch archives in Alor Setar and acquisition of two more sites for archives in Kota Kinabalu and Kuching.

Community Development

1119. Under the FMP, a sum of \$22 million is allocated for community development programmes under KEMAS for the completion of three Family Development Training Centres at Lumut, Kuching and Kuantan and 13 district community service centres. Construction works for the Institute for Rural Development at Bangi to provide training in leadership and community development for about 300 participants per year will begin in 1981. KEMAS will also expand its programme for the rural population by providing more rural libraries and pre-school centres. A new programme, *Karyanika*, will be launched to encourage the production of handicraft among rural women. A sum of \$10 million is allocated to RISDA under FMP for training and skill upgrading of rubber smallholders, including the setting up of 215 TABIKA and 215 community development centres for women. In addition, allocations of \$12.5 million and \$23 million are provided for the construction of 27 student hostels and scholarships, respectively.

1120. *Youth.* During the FMP, programmes for youth will continue its emphasis on training in technical and vocational fields, agriculture and small businesses as well as in motivation, discipline and leadership. Facilities at the youth training centres at Dusun Tua and Pertak will be expanded and additional youth training centres will be established at Sepang, the Federal Territory and the east coast of Peninsular Malaysia. Under the farm youth programme, a total of 1,200 projects will be implemented involving about 5,000 youth, while under the youth-in-business programme about 2,000 projects will be established, providing employment to about 5,000 youth. The allocation for the programmes amounts to \$49 million.

1121. *Sports.* A comprehensive sports programme is planned under the FMP. The Government will continue to encourage the participation of all sections of society in regular sports and exercises. This will be carried out not only in urban and semi-urban areas but particularly in rural areas. The National Sports Council will intensify its activities during the period. A sum of \$9.1 million is allocated for the expansion and improvement of existing facilities at the Kampung Pandan Multi-purpose Centre, *Stadium Negara*, and *Stadium Merdeka* in Kuala Lumpur and to meet the cost of preliminary works for the establishment of a National Sports Institute. An allocation of \$19 million is provided to assist state governments to expand sports facilities in state capitals and \$33 million for sports facilities in smaller towns. The construction of multi-purpose complexes to cater for both sports and cultural activities will be continued in the FMP for which an allocation of \$9.3 million is provided.

1122. *Orang Asli*. Efforts will be intensified to upgrade the socio-economic well-being of *Orang Asli* community and to accelerate their integration into the mainstream of society. A sum of \$40.1 million is provided for the opening up of new lands for agriculture, setting up of processing centres and handicraft workshops and for settlement schemes in the Titiwangsa region.

Security

1123. *Armed forces and police*. To upgrade the security capability of the nation, a sum of \$9,225 million is provided for the expansion and modernization of the armed forces and the police. The programme includes purchase of equipment, construction of office and staff accommodation and provision of training facilities.

1124. *Prisons*. An allocation of \$106.4 million is provided for the construction of additional facilities to relieve congestion at existing prisons as well as to provide staff quarters. New prisons at Kuantan, Kuala Trengganu and Tapah will be constructed. The construction of major projects at Kajang, Pokok Sena and Simpang Rengam, started under the TMP, will be continued.

1125. *Immigration*. A sum of \$36.2 million is provided for the construction of new offices at gazetted entry points in Johor, Kelantan, Negri Sembilan and Perak, as well as the provision of staff quarters at remote border posts.

1126. *Fire services*. A sum of \$67.5 million is provided to complete the construction of 14 fire stations started during the TMP, as well as to build 11 new fire stations at Ayer Kroh, Damansara Utama, Jengka, Kroh, Kuala Nerang, Laka Temin, Langkawi, Mantin, Padang Besar, Serdang and Sik. In addition, 100 fire engines and other fire-fighting equipment will be acquired.

General Administration

1127. *Government buildings*. A sum of \$252.2 million is provided for Federal buildings programme. The state governments will reconstruct new district and land offices, for which a sum of \$28.2 million is provided. A sum of \$59.5 million is provided for construction of new court houses and quarters for judges as well as to complete the renovation of *Bangunan Sultan Abdul Samad*. A sum of \$127.7 million is provided for the construction of a staff training centre at Johor Bahru, office buildings, staff quarters and for purchase of launches and other equipment for the Royal Customs and Excise Department. The Road Transport Department is provided a sum of \$44.2 million for the construction of a training centre at Bangi, state, branch and sub-offices as well as purchase of equipment. A sum of \$80 million is provided for the purpose of acquisition and renovation of chancery buildings and official residencies abroad.

1128. *Information and broadcasting.* During the FMP, the coverage of information and broadcasting services, particularly to smaller towns and remote areas will be expanded. In addition, the project to redress the imbalance of the transmission coverage between Peninsular Malaysia and Sabah and Sarawak by extending Channel Two to the two states, will be implemented. General accessibility to radio and television media is expected to increase by 95% by the end of 1985. An allocation of \$142.6 million is provided for the expansion programmes. The TMP continuation projects, including television colour transmission stations in Peninsular Malaysia and Sabah, BERNAMA headquarters and its state offices, *Filem Negara's* colour film laboratory and a number of broadcasting and transmission stations will be completed. New projects to be implemented under the FMP include the construction of eight radio and television studios, 40 information offices, extensions to local and regional studios in Johor Bahru, Kuching, and Pulau Pinang, projects incorporating production units and purchase of 120 mobile information units, five outside broadcast vans, five electronic field production units and other equipment.

1129. *Social security.* In addition to the existing schemes, new schemes covering sickness, maternity, old age and survivorship will be considered for implementation. The proposed schemes, together with the two existing schemes, are expected to cover 4.74 million workers throughout the country.

1130. *Services to kampung and New Villages.* In addition to the allocations provided for *Kampung* and New Villages, to be undertaken by the various agencies, a sum of \$130 million is allocated for *kampung* rehabilitation and New Villages development programmes.

1131. *Zoo and wildlife protection.* A sum of \$13 million is provided for wildlife management and conservation activities. Two new national parks, the Endau-Rompin National Park and the Kuala Koh National Park will be developed. In addition, a sum of \$2 million is allocated to *Zoo Negara* for improving its facilities.

1132. *Local government.* Local authorities will be provided with annual grants for maintenance purposes and for providing facilities such as roads, drainage, water supply, electricity, playgrounds, markets and stalls. A sum of \$199.8 million is provided for the purpose.

III. ALLOCATION FOR CULTURE, COMMUNITY DEVELOPMENT, SECURITY, AND GENERAL ADMINISTRATION

1133. The allocation and expenditure for culture, community development, security, and general administration during 1971-80 and for the FMP period are shown in Table 24-1.

TABLE 24-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR CULTURE, COMMUNITY DEVELOPMENT, SECURITY AND GENERAL ADMINISTRATION, 1971-85

(\$ million)

	Revised SMP allocation 1971-75	Actual expenditure 1971-75	Achieve- ment %	Revised TMP allocation 1976-80	Estimated expenditure 1976-80	Achieve- ment %	EMP allocation 1981-85
<i>Community Development and Cultural Services</i>	130.07	106.35	81.8	258.33	152.22	58.9	441.27
Culture	0.70	0.07	10.0	4.30	0.51	11.9	46.50
Museum	1.97	1.53	77.7	9.70	6.56	67.6	14.00
Public Libraries and Archives	3.97	1.56	39.3	16.47	9.14	55.5	41.63
Community Development	1.40	0.77	55.0	11.62	8.64	74.4	22.04
Youth	3.42	1.82	53.2	32.48	22.73	70.0	49.00
Sports	7.29	6.41	87.9	21.39	9.57	44.7	70.35
Orang Asli	7.50	7.45	99.3	45.85	20.70	45.1	40.13
Information and Broadcasting	102.20	85.23	83.0	110.20	69.10	63.0	142.62
Zoo and Wildlife protection	1.62	1.51	93.2	6.32	5.27	83.4	15.00
<i>Kampung, New Villages and Local Government Development</i>	23.27	17.93	77.1	345.25	55.79	16.2	329.80
Security	1,131.97	1,022.62	90.3	6,344.11	3,553.60	56.0	9,435.05
Defence	810.00	705.85	87.1	4,969.43	2,672.36	53.8	7,190.00
Police	298.91	298.91	100.0	1,231.95	798.02	64.8	2,035.00
Prisons	18.91	14.16	74.9	87.38	47.97	54.9	106.40
Immigration	3.51	3.06	87.1	20.65	11.45	55.4	36.15
Fire Services	0.64	0.64	100.0	34.70	23.80	68.6	67.50
<i>Government Buildings</i>	173.93	149.95	86.2	862.42	465.32	54.0	504.06
TOTAL	1,459.24	1,296.85	88.9	7,810.11	4,226.93	54.1	10,710.18