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THE POLITICAL ECONOMY OF MALAYSIA

EDITED BY
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H. OSMAN-RANI

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Preface

THE purpose of this book is to examine some of the more important features of Malaysian development after two and a-half decades of independence. To do this, the editors have gathered together a group of scholars, nearly all of whom are Malaysians. Each has looked at the Malaysian situation from the viewpoint of his own discipline or specialty, and has sought to discover the main influences in that specialist field that have contributed to the current Malaysian situation.

From this, they have not attempted to foretell future events, but to see how changing circumstances may modify the influences that have produced the present situation, and to note significant new factors that may emerge as important determinants of Malaysia's further development over the next decade or two. It is thus not a book of prophecy, but rather an objective analysis of the development of the society.

The book is unique, we believe, in the breadth of its compass, reaching well beyond the confines of individual disciplines, whilst retaining the rigour of the disciplines of the individual chapters. The Malaysian situation is so complex, and single discipline analysis can be so misleading for policy making, that a very broad spectrum is essential to understand policy questions. The book aims to provide that broad spectrum.

Covering such a wide range of subjects, there is inevitably some repetition of topics and themes, for factors such as oil, energy, poverty and racial differences pervade all aspects of national life. Much of the original duplication between chapters has been removed in the editing process, but some minimum has been left, in order that each chapter may stand reasonably well on its own. In a book of this nature and size, it is felt that a reader interested primarily in certain specific aspects of the Malaysian scene should be able to find what he most needs in the chapters that purport to deal with his subject.

There are, of course, gaps that have not been filled. The constrict-

tions of time and personnel have inevitably imposed restrictions. Defence and internal security is one topic that is not covered; international relations is another. However what has been included spans most of the key areas, and the coverage is, we feel, more than has hitherto been readily available to the reader with broad interests, or to the specialist seeking an adequate framework for his specialty.

The book is thus designed to provide tools with which, from year to year, the Malaysian situation may be intelligently reassessed in the light of new developments and unforeseen changes in its circumstances. With these tools it is hoped that the intelligent observer should be able to see more clearly where new policies may be needed for the effective adaptation to the new situations that will develop during the 1980s and 1990s. In doing this, topical subjects have, as far as possible, been avoided, and attention concentrated rather on issues likely to be of lasting importance during the next two decades.

The book is intended to meet the needs of a wide audience, and to serve in several roles.

First, it is intended to serve the needs of the political leaders, civil servants, bankers, industrialists, entrepreneurs and managers, for whom an overall picture of the formative factors in the Malaysian Political Economy is needed as a basis for the decisions they have to make in their own fields. For them, it is hoped that it will be a book to be read, resampled from time to time, and kept as a reference.

Secondly, it is intended as a textbook for first and second year courses in social sciences at tertiary level. In this role, it is designed to provide the broad basis on which a healthy specialization can subsequently be built. Thus, for the intending sociologists, economists, demographers or bankers, for example, it provides a sufficient grounding in the other aspects of Malaysian society to enable their own chosen specialty to be seen in its proper perspective.

Thirdly, it is intended to serve the needs of decision-makers and students in other countries who are interested in Malaysia and its remarkable social, political and economic development, whether as an example of interest for its implications for development elsewhere, or as a country with which to do business.

Finally, it is hoped that it will fill a need, both in English and in Malay, as a basic reference work in private and public libraries, from secondary school level and upwards.

Acknowledgements

THE production of this book owes a great deal to a number of people and institutions. The idea of producing such a book originated with Dr Chong Kwong Yuan. He, and the then Dean of the Faculty of Economics at the Universiti Kebangsaan Malaysia, Tuan Syed Hassan Alhabshi, were responsible for the first proposal for the production of an economics text as a product of the university. It was they who persuaded the editors to undertake the task of designing the detail of the book and of getting the various authors to write it. It was, however, Tuan Syed Alhabshi who brought the members of his faculty into the project, and arranged for the visits and the series of seminars by which the book was developed. It was greatly regretted by all concerned that his overseas commitments in 1979 and 1980 prevented him from taking part as an editor or contributor. The production of the book would not have been possible had it not been for his vigorous organization and support in the early stages.

The editors and authors have also received valuable assistance from other parties during the writing and editing process. An important feature was the intellectual support and stimulus provided by other members of the academic staff of the Universiti Kebangsaan Malaysia, both in their interaction with the individual authors, and in the series of seminars conducted on the various draft chapters. In addition, special mention must be made of helpful comments made on certain components by Professor H. W. Arndt, Dr Gavin Jones, Dr Peter Rimmer and Miss C. S. Tan of the Australian National University, and Mr Jegathesan of Malaysian Industrial Development Authority.

Finally the editors acknowledge with gratitude the great assistance given by Mr Simon Bell and Miss Margaret Easton of the Australian National University, and by Encik Abdul Jalal bin Atan and Miss Lee Aun Nee of Malayan Banking Berhad who helped in many aspects of the production, including the preparation of parts of the Malay version (Encik Jalal) and in proof reading and preparation of the index (Miss Easton).

The editors and authors are also particularly grateful for substantial financial assistance from the Australian-Asian Universities Cooperation Scheme, which enabled the publishers to produce the book at a price within the reach of Malaysian students. They are grateful also for financial support offered by PETRONAS (Petroleum Nasional Bhd.) and by Malayan Banking Berhad.

Contents

<i>Preface</i>	v
<i>Acknowledgements</i>	vii
<i>Tables</i>	xi
<i>Figures</i>	xv
<i>Maps</i>	xv
<i>Acronyms and Abbreviations</i>	xvi
<i>Contributors</i>	xix
1 DEVELOPMENT IN MALAYSIA E. K. FISK	1
2 THE GEOGRAPHICAL SETTING SULONG MOHAMED	24
3 THE PHYSICAL INFRASTRUCTURE KADIR H. DIN	44
4 THE DEMOGRAPHIC SITUATION KAMARRUDIN SHARIF	66
5 THE POLITICAL STRUCTURE ZAKARIA HAJI AHMAD	88
6 THE SOCIAL STRUCTURE ABDULLAH TAIB & MOHAMED YUSOFF ISMAIL	104
7 THE ECONOMIC STRUCTURE M. ZAINUDIN SALLEH & ZULKIFLY OSMAN	125
8 DEVELOPMENT PLANNING BENJAMIN HIGGINS	148
9 TRADE AND EXTERNAL RELATIONS CHONG KWONG YUAN	184
10 AGRICULTURAL SECTOR ZULKIFLY HJ. MUSTAPHA	205
11 EXTRACTIVE INDUSTRIES M. ANUAR ADNAN	229

12	MANUFACTURING INDUSTRIES	
	H. OSMAN-RANI	260
13	MONEY, BANKING, AND MONETARY POLICY	
	MARY CHANTRASMI & THAM SIEW YEAN	287
14	PUBLIC FINANCE	
	ISMAIL SALLEH	308
	<i>Glossary</i>	341
	<i>Bibliography</i>	342
	<i>Index</i>	356

Tables

1.1	Indicators of the Standard of Living for ASEAN and Selected Countries, 1978	3
2.1	Malaysia: Availability of Cultivable Land, 1979	26
2.2	Malaysia: Area under Cultivation by Types of Crop, 1979	26
2.3	Malaysia: Agricultural Production and Export Earnings, 1979	27
2.4	Malaysia: Water Suitable for Trawling by Fishing Regions	31
2.5	Malaysia: Availability of Suitable Water Resources for Aquacultural Development	33
2.6	Malaysia: Availability of Forest Resource	34
2.7	Peninsular Malaysia: Total Area of Forest under Logging	35
2.8	Known Total Crude Oil Reserves by State	40
3.1	Percentage Distribution of Population, Paved Road Mileage, Registered Vehicles, Doctors and Telephone Receivers by State, 1978	45
3.2	Distribution of Roads by Surface Type, 1977	48
3.3	Malayan Railway Locomotives, 1978	51
3.4	Average Daily Train Density on the Malayan Railway, 1977-1978	53
3.5	Malayan Railway Passengers, 1978	54
3.6	Cargo Handled by Malaysian Ports, 1978	56
3.7	Visitor Statistics, Malaysia	57
3.8	Air Traffic at Malaysian Airports, 1978	58
3.9	Installed Capacity for Peninsular Malaysia, 1977-1978	61
3.10	Percentage of Total Rural and Urban Population Served with Piped Water in Peninsular Malaysia, 1978	62
3.11	Telephone, Telegraph and Telex Facilities, Malaysia, 1979	64

4.1	Malaysia: Population, 1911-1980	67
4.2	Mortality Rates and Life Expectations for Peninsular Malaysia, 1957-1976	70
4.3	Infant Mortality Rate by Ethnic Group and Sex for Peninsular Malaysia, 1947-1976	71
4.4	Percentage Changes in Age-Sex Standardized Birth Rates by Race, Peninsular Malaysia, 1957-1977	72
4.5	Changes in Age-Specific Fertility Rate (ASFR) by Race, 1957-1977	73
4.6A	Distribution of Projected Population (Adjusted) by Community for Peninsular Malaysia, 1970-1990, Projections A-D	76
4.6B	Distribution of Projected Population by Community for Sabah, 1970-1990, Projection A	78
4.6C	Distribution of Projected Population by Community for Sarawak, 1970-1990, Projection A	79
4.7	Labour Force Participation Rate in Peninsular Malaysia, 1957-1976	81
4.8	Labour Force Participation Rate by Age, Sex and Residence in 1976	82
4.9	Unemployment Rate by Age and Residence for Peninsular Malaysia, 1976	83
4.10	Growth Rates of Urban Population by Race for Peninsular Malaysia	86
5.1	Average Settler Monthly Incomes in Felda Schemes, 1977	101
7.1	Gross Domestic Product by Industry of Origin, 1960-1980	129
7.2	Malaysia: Revised Public Development Expenditure, 1976-1980	130
7.3	Malaysia: Export by Major Groups, 1960-1978	133
7.4	Peninsular Malaysia: Consumer Price Index	134
7.5	Malaysia: Employment Growth by Sector, 1965-1990	136
7.6	Peninsular Malaysia: Employment by Ethnic Groups and Sector, 1967-8 and 1975	138
7.7	Peninsular Malaysia: Employment by Race and Sector, 1980	139
7.8	Peninsular Malaysia: Share of the Various Racial Groups in Employment by Occupation in 1980 and 1990	140
7.9	Peninsular Malaysia: Household Income Inequality	143
7.10	Peninsular Malaysia: Number of Poor Households by Sector, 1980	146

8.1	Ownership of Assets in Modern Agriculture and Industry, Peninsular Malaysia, 1970	154
8.2	GRP Per Capita and Per Cent Malay Population	158
8.3	Average Growth Rates by Urban Hierarchy, Peninsular Malaysia	171
8.4	Urbanization by State and Region, 1970	172
8.5	GDP Per Capita, Sectoral Shares of GDP and Urbanization by State, 1970	173
8.6	Relationship Between City Size and Resource-based Manufacturing Industries	173
8.7	Financial Allocation for Resource Frontier Development, 1971-1980	175
8.8	Manpower Allocation in Regional Development Authorities, 1979	176
9.1	Malaysia: Gross Imports by Economic Function	187
9.2	Malaysia's Gross Exports by Major Commodities	190
9.3	Malaysia's Gross Exports of Manufactures	191
9.4	Malaysia's Imports by Country	197
9.5	Malaysia's Imports by Region	198
9.6	Malaysia's Exports by Country	198
9.7	Malaysia's Exports by Region	199
9.8	Malaysia's Balance of Payments	201
10.1	Malaysia: Progress in Land Development, 1971-1980, and Target Acreage, 1981-1985	213
10.2	Smallholder Tenure Status and Farm Size, Peninsular Malaysia, 1970	215
10.3	Agricultural Output by Types of Production, Peninsular Malaysia, 1973-1977	217
10.4	Employment in Agriculture in Peninsular Malaysia, 1975 and 1980	219
10.5	Peninsular Malaysia: Mean Monthly Household Income of the Lower Four Deciles, 1970, 1976 and 1979	220
11.1	Unit Costs of Tin Production, Malaysia, 1972-1976	233
11.2	Costs Per Picul of Tin Produced, by Method of Mining	235
11.3	Actual and Potential Crude Oil Production from Offshore Fields in Malaysia	244
12.1A	Peninsular Malaysia: Value Added by Branches of Manufacturing Industry, 1963, 1968 and 1973	267
12.1B	Peninsular Malaysia: Employment by Branches of Manufacturing Industry, 1963, 1968 and 1973	268
12.2	Manufacturing Growth in Peninsular Malaysia, 1968-1978	269

12.3	Malaysia: Gross Manufacturing Exports, 1970-1979	270
12.4	Regional Distribution of GDP and Manufacturing Output in 1971 and 1980	273
12.5	Malaysia: Regional Distribution of Manufacturing Value Added in 1973	274
13.1	Financial Instruments Outstanding in Malaysia, 1960-1977	297
13.2	Assets of Financial System in Malaysia, 1960-1977	298
13.3	Trends in the Growth of Money Supply, GNP and the Price Level, 1960-1977	302
14.1	Percentage of Revenue and Expenditure to GNP, 1960-1980	309
14.2	Federal Government Finance, 1960-1980	311
14.3	Non-Revenue Sources of Federal Finance, 1960-1980	312
14.4	Percentage Composition of Total Federal Expenditure, Malaysia, 1960-1980	313
14.5	Malaysian Planned Development Expenditure	315
14.6	Actual Malaysian Plan Development Expenditure	316
14.7	Malaysia: Ratio of Taxes to GNP, 1960-1980	322
14.8	Absolute and Relative Composition of Direct Taxes, 1960-1980	324
14.9	Estimated Distribution of Tax Burdens of Income Groups: Peninsular Malaysia, 1968, 1970 and 1973	329
14.10	Pre-Tax and Post-Tax Gini Coefficients: Peninsular Malaysia, 1968, 1970 and 1973	333
14.11	Distribution of the Total Tax Burden According to Rural-Urban Residence and Ethnicity by Income Size, 1973	334
14.12	Pre-Tax and Post-Tax Gini Coefficients by Urban-Rural Strata and Ethnic Groups, 1973	335
14.13	Distribution of Basic Services and Costs by Basic Partitions, Peninsular Malaysia, 1974	337
14.14	Normalized Budget Incidence by Income Deciles, 1974	339

Figures

3.1	Estimated Demand for Electricity, Peninsular Malaysia, 1978-1990	60
4.1	Total Population in Peninsular Malaysia, 1975	68
4.2	Mortality Rates and Life Expectations for Peninsular Malaysia, 1957-1976	70
8.1	Administrative Framework for Regional Development	167
8.2	Urban Structure: Actual and Expected, 1947, 1957 and 1971	170
11.1	Malaysian Crude Oil Production, 1975 to 2000	245
11.2	Forest Resources in Peninsular Malaysia	255

Maps

2.1	Distribution of Tin Deposits in Peninsular Malaysia	39
2.2	Distribution of Oil and Gas Fields in Malaysia, 1979	41
3.1	Distribution of Roads in Malaysia, 1979	47
3.2	Distribution of Railways, Ports and Airports, Malaysia, 1979	52
8.1	Location of Regional Development Authorities in Peninsular Malaysia and Areas Covered by Various Master Planning Studies	162
8.2	Urban and Regional Programmes, Projects and Studies	163
8.3	DARA (Pahang Tenggara) Settlement Pattern and Roads	178

Acronyms and Abbreviations

ACCCI	Associated Chinese Chambers of Commerce and Industry
ADT	average daily traffic
ASEAN	Association of South-East Asian Nations
ASFR	Age Specific Fertility Rate
BA	Bankers Acceptances
BERJASA	Barisan Jema'ah Islamiah Malaysia Bersatu
BERJAYA	Bersatu Rakyat Jelata Sabah
BN	Barisan Nasional (National Front)
BNM	Bank Negara Malaysia
BPM	Bank Pertanian Malaysia
BPMP	Bank Pembangunan Malaysia Bhd. (Malaysian Development Bank)
CCT	Common Customs Tariff
CGC	Credit Guarantee Corporation
CGS	Credit Guarantee Scheme
CPM	Communist Party of Malaysia
DAP	Democratic Action Party
DID	Drainage and Irrigation Department
DARA	Lembaga Kemajuan Pahang Tenggara (Pahang Tenggara Development Authority)
EEC	European Economic Community
EPF	Employees Provident Fund
FAMA	Federal Agricultural Marketing Authority
FAO	Food and Agricultural Organisation
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FIDA	Federal Industrial Development Authority (now known as Malaysian Industrial Development Authority)
FIMA	Food Industries of Malaysia Sdn. Bhd.
FMP	First Malaysia Plan

FOA	Farmers Organization Authority
fob	free on board
GDP	Gross Domestic Product
GNP	Gross National Product
GSA	Government Services Administration (US)
GSP	Generalised System of Preferences
IBRD	International Bank for Reconstruction and Development
ICA	Industrial Coordination Act
ISD	International Subscriber Dialling
ITA	International Tin Agreement
KADA	Kemubu Agricultural Development Authority
KEJORA	Johor Tenggara Development Authority
KESEDAR	Kelantan Selatan Development Authority
KETENGAH	Trengganu Tengah Development Authority
kWh	kilowatts
LDC	Less developed country
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LPN	Lembaga Padi and Beras Negara (National Padi and Rice Board)
MADA	MUDA Agricultural Development Authority
MAJUIKAN	Lembaga Kemajuan Ikan Malaysia (Fisheries Development Authority)
MAJUTERNAK	Lembaga Kemajuan Ternakan Negara (National Livestock Development Authority)
MARA	Majlis Amanah Rakyat (Council of Trust for the Indigenous People, Reconstituted from RIDA—Rural Industries Development Authority)
MARDI	Malaysian Agricultural Research and Development Institute
MCA	Malaysian Chinese Association
MIC	Malaysian Indian Congress
MIDA	Malaysian Industrial Development Authority (previously known as FIDA)
MIDF	Malaysian Industrial Development Finance Bhd.
MIDU	Mineral and Investigation Unit
MISC	Malaysian International Shipping Corporation
MTN	Multinational Trade Negotiations
mW	Million watts
NCD	Negotiable Certificates of Deposit
NEP	New Economic Policy
NF	National Front (Barisan National)
OMRD	Overseas Mineral Resources Development

OPEC	Organisation of Petroleum Exporting Countries
OPP	Outline Perspective Plan
PAS	Parti Islam Sa-Malaysia
PMIP	Pan Malaysian Islamic Party
PERNAS	Perbadanan Nasional Bhd. (National Corporation)
PETRONAS	Petroleum Nasional Bhd. (National Petroleum)
PSRM	Parti Sosialis Rakyat Malaysia
RISDA	Rubber Industry Smallholder Development Authority
RRIM	Rubber Research Institute of Malaysia
RSS	Ribbed smoked sheet
SADC	State Agricultural Development Corporation
SDR	Special Drawing Rights
SEALPA	South East Asia Lumber Producers' Association
SEDC	State Economic Development Corporation
SESCO	Sarawak Electricity Supply Corporation
SLDB	State Land Development Board
SMP	Second Malaysia Plan
SOCISO	Social Security Organization
SRFB	Sabah Rubber Fund Board
SSB	Sarawak Shell Berhad
SSPC	Sabah Shell Petroleum Company
STD	Subscribers Trunk Dialling
SUPP	Sarawak United People's Party
TFR	Total fertility rate
TMP	Third Malaysia Plan
UDA	Urban Development Authority
UMNO	United Malays National Organisation
UNCTAD	United Nations Conference on Trade, Aid and Development
USNO	United Sabah National Organisation
WHO	World Health Organisation
ZOPFAN	Zone of Peace, Freedom and Neutrality

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1 Development in Malaysia

THE conceptual basis for this study of development in Malaysia is that economic activity, i.e. the process whereby goods and services are produced, distributed, and consumed within a community, is an integral part of the very much wider social system of that community. Moreover, it is our belief that the economic part can only be examined properly in the context of that total system. In its turn, the social system of a community is its mode of adjustment to its internal composition and needs on the one hand, and to its external environment and situation on the other. Changes in the external environment or in the internal needs and values of the community require adaptive changes in the social system; these will normally include changes in the form or mode of economic activity as well as in other components of the total social system and the two must go together.

This book comprises a series of connected chapters, designed to be read together as a book, dealing with various aspects of these problems of adaptation in the Malaysian context. Many of the key problems that arise in this discussion lie well outside the range of the economics discipline, and deal with matters such as the racial and religious differences within the population, the distribution of wealth, of ownership, of control and of skills. In Malaysia, it is necessary to examine these differences not only between individuals but also between races and between other natural divisions of the population, such as rural and urban, religious divisions, and the geographical divisions between Peninsular Malaysia, and Sabah and Sarawak.¹ It is necessary to consider such diverse elements as the nature, distribution and extent of poverty, the influence of religious differences on social, economic and political attitudes, the changing concepts of equity and of the proper basis for the distribution of the national income.

Malaysian development is thus a continuing process of adjustment to man's total environment in Malaysia. It includes the series

¹ For the geographical spread of Malaysia see Map 3.1.

of adjustments that can be described as economic, but it also includes adjustment to the physical environment, to the political environment, internal and external, and to the social environment. Adjustments in all these fields are taking place all the time, and they are intimately connected. Many other aspects of adjustment, including demographic, climatic, racial, education and religious factors, are also involved. To extract simply one or two aspects, and to treat these in pseudo isolation is, from the point of view of policy formation or planning, complete nonsense, and is inevitably misleading.

THE ECONOMIC SITUATION

However, it must be admitted that economic factors are of special significance in this totality, for they determine some important limits to what other adjustments are practicable. They are not by any means the only determinants of these limits, but they are basic and provide a good starting point for thinking about the totality. So let us start by looking at the economic situation of Malaysia as it enters the 1980s.

Malaysia is fortunate in many ways. The process of adjustment to its total environment, whether by design or by good fortune, has been remarkably successful in many respects during the 1960s and 1970s. Reference is still often made to Malaysia as a member of the Third World, as a poor country and as being underdeveloped. But the validity of these descriptions, when applied to modern Malaysia, cannot be accepted without some critical examination. It is not suggested that they do not apply to Malaysia at all; but they do not apply as easily as they do to many other countries. In terms of national income per head of population, Malaysia ranks high in the world hierarchy (see Table 1.1). In the 1980 World Development Report produced by the World Bank, Malaysia was ranked 24th out of a total of 90 developing countries. When the total population of the developing countries is taken into consideration, the small Malaysian population ranks much higher, as most of the very large developing countries are very much poorer. Even taking the developed countries into consideration, at the end of the 1970s Malaysia's income per capita placed its population in the top 37 per cent of the world's total population, including Mainland China and the other socialist countries.

Such figures are of course only a very rough guide. The standard of living indicated by an annual income of, say, US\$200 per capita in a Malaysian padi producing village, will be quite different from that represented by a similar cash income in New York or Stock-

TABLE 1.1
Indicators of the Standard of Living for ASEAN and
Selected Countries, 1978

	<i>GDP per capita</i> (US\$)	<i>Private Consumption per capita</i> (US\$)	<i>Fixed Capital Formation per capita</i> (US\$)	<i>Population (million)</i>
ASEAN average	399.54	255.77	95.19	249.97
Singapore	3484.06	2153.76	1162.68	2.33
Malaysia	1258.21	684.42	314.40	12.91
Philippines	500.39	328.73	115.32	46.35
Thailand	484.32	317.10	131.06	45.10
Indonesia ¹	212.70	143.44	40.27	143.28
South Asia				
Sri Lanka	174.97	128.45	24.85	14.21
India ²	142.47	101.72	27.11	610.08
East Asia				
Taiwan	1465.27	729.14	373.17	16.86
South Korea	1244.87	760.27	389.46	37.02
Developed Countries				
U.S.A.	9643.02	6182.61	1715.30	218.50
Japan	9226.71	5304.00	2814.46	114.90
Australia	7598.83	4552.63	1743.07	14.25

Source: Table constructed by Nahan from data in the *International Financial Statistics, Yearbook, 1979*, IMF, Washington DC and to be used in his Ph.D. thesis on the North West Malaysian Fishing Industry.

¹ Figures are for 1977.

² Figures are for 1976.

holm. Differences in climate alone will be enough to modify the requirements for housing, clothing and heating. In addition, most households in the Malay padi producing village will have available from their own production most of their staple food. And, even in the cases where this factor is taken into consideration in national income data, as it now is to some extent in Malaysia, they have been generally underestimated both in quantity and in value.¹ These are by no means the only factors that mitigate the apparent differences in incomes shown by the international data series, but they serve as examples.²

The fact is that Malaysia is no longer in any real sense a poor country by world standards. It enters the 1980s as an upper-middle

¹ There is almost unanimous agreement amongst the co-authors of this book that this is so in Malaysian national income statistics.

² For an interesting discussion of the problems involved, and some useful (though outdated—1973) comparative figures for Malaysia, see Kravis, Heston and Summers, 1978.

income country, well above the general level of living standards of the world's population. What is more, the rate of economic growth has been quite rapid in the 1960s and 1970s, at a time when both the very poor countries and most of the advanced countries in the world have in general suffered a serious decline in their rates of growth. Malaysia has also become an increasingly attractive locus for international investment. Whilst much of the manufacturing investments that have flowed into Malaysian enterprises have been of relatively unsophisticated types, exploiting mainly low cost unskilled labour, the foundation has been laid for the growth of a more skilled labour force and the evolution of more sophisticated forms of manufacturing. All this is being done at the expense of those countries where costs of employing wage labour have risen to unrealistic levels. In this, as in other respects, Malaysia is on the way up, whilst many of the previously leading advanced countries appear to be on the way down, so that Malaysia's situation is improving not only in absolute terms, but also relative to most of the world's population.

From an economic point of view this sounds quite satisfactory, and in a sense it is. However, there are still many aspects of Malaysia's adjustment that urgently need improvement. The income per head is high and increasing, but there is a considerable problem concerning its distribution, and considerable argument about how it *ought* to be distributed. Many people are rich, and most are better off than the majority of mankind, but there remain some who are really poor. Even more significant, perhaps, is the substantial proportion of the population who feel themselves to be unjustly deprived of the affluence to which they aspire. For many, income growth has been much less than has accrued to a fortunate small segment of the population, including those who exercise authority and power. This, more than two decades after Independence, is a disappointment to those whose economic situation has not substantially improved, and even more to those whose situation has worsened.

However, from a purely economic point of view, Malaysia can be deemed to be doing pretty well. An excellent little book by Wolfgang Kasper entitled *Malaysia*, says:

Malaysia's economic history offers particularly interesting lessons. It shows a combination of a reasonably high growth rate (real GNP went up by an estimated six to seven per cent annually during the 1960s) with an exceptionally high internal price stability (retail prices went up by about one per cent per annum during the 1960s) and a comfortable stability in the external balance of trade. Malaysia has a more or less open economy, which year by year depends less on supplying raw materials to the world market. Industrial output

has grown annually by 11 to 12 per cent in recent years. Moreover, industry has taken over the role of the growth engine from the traditionally leading primary sector. This change seems to have been less painful in Malaysia than in many other developing countries. The infrastructure and social services have reached quality levels that are rarely attained elsewhere in the tropics. If such exceptional cases as the city-states of Singapore and Hong Kong are left out, Malaysia relates to the surrounding countries almost as Switzerland did to its neighbours in the 1950s: a well-to-do, politically stable, neutral, and rather conservative country with a *laissez-faire* economy (Kasper, 1974).

This was published in 1974, but it is still a fairly good description of the economic status of Malaysia in 1980.

No one, they say, is perfect, and that applies certainly to governments and to planners, but the Malaysian planners have done pretty well. There is nothing in these modest sets of difficulties, one would think, that a tightly united little nation could not take comfortably in its stride. But here we come up against difficulties that are not obvious until one transcends the limits of economic analysis. Malaysia is not a tightly united little nation by any means. It is one that is subject to a remarkable range of divisive and disruptive influences in its geography, racial make-up, religions, political institutions, and international relations. These influences will be examined after a brief review of the economic prospects.

THE ECONOMIC PROSPECTS

Malaysia's economic products as a world trading nation include tin; it is the world's leading producer. The world price of tin had increased and in 1980 was still giving tin mining a good return. But production is down and falling further price increases that would make more difficult sources profitable, it looks almost certain that this downward trend will gradually continue as the known tin resources of Peninsular Malaysia are reworked again and again towards the point of no economic return (see Chapter 11). Malaysian production of iron ore has virtually ceased as the richest deposits have been worked out, and vast new rich deposits have been found and opened up elsewhere in the world. There may be some other new mineral prospects such as uranium, copper and gold in Malaysia but these had not been proven by the end of the 1970s.

Oil is now a very important factor in the Malaysian economy. It enables Malaysia to meet its own requirements of the types of oil produced locally, and to sell on the world markets sufficient to purchase the other fuel requirements and still to leave a substantial surplus of foreign exchange. However, the oil reserves appear to be quite limited (see Chapter 9) and the present indications are that within a few years production will begin to decrease, though it will

be some time before Malaysia is less than self-sufficient. During this period Malaysia's quite large reserves of natural gas will begin to provide at least a partial alternative.

Industrialization has taken over as the lead sector in the economy as Malaysia enters the 1980s. This change is producing a social and political impact which will be discussed in some detail below, and is a recurrent theme in many chapters of the book. This industrialization is based largely on cheap supplies of literate and relatively competent but unskilled workers. However, cheap labour is already becoming harder to find and there were considerable numbers of unfilled jobs in many factories at the end of the 1970s; what appeared to be unlimited supplies of labour in the Lewis sense (Lewis, 1954) seem to have begun to run out with the result that both wages and the difficulty in acquiring labour are likely to increase. Skills, however, are also beginning to rise as people are getting experienced in factory-type work and there will be an increase in returns as well as costs. In the long run, however, wage increases can be expected to exceed increases in skill. Malaysia in its turn will then begin to feel competition from other countries with large reservoirs of potentially available cheap labour, such as Indonesia, Thailand and parts of the Philippines within the region, and China, India and some African countries outside the region. These large pools of cheap labour will begin to compete with Malaysian labour when the countries concerned can provide the infrastructure and the stability which is so important to this type of production. Malaysia then will be forced to move gradually into more sophisticated types of manufacturing and in this it will eventually be faced with the need to compete with other more advanced industrializing countries such as Taiwan, Korea, Hong Kong and Singapore; these it may find to be harder nuts to crack.

Rubber, timber and palm oil are the three main rural exports and rice is the main agricultural product for home consumption. Rubber and palm oil have both done very well in the 1970s, but in the longer term, they do have to face rising costs and increasing problems of labour supply. On the other hand, rubber at least may have some reasonable prospects of sustained world prices, as its competing products are affected by the increasing oil prices. There are also prospects of considerable further expansion of other crops such as cocoa (see Chapter 10).

The infrastructure in Malaysia is extremely good but in some respects there are indications of some incipient deterioration, not in the physical infrastructure, but in some essential services. In particular, there are suggestions of some lack of initiative and application in government services at the middle level of staff ap-

pointments. These services are still very much better than in most countries in the region, but there are problems in this field and there is also evidence of some lack of rigour and even corruption at some levels.¹

However, the big problem for the Malaysian economy in the future, the big question mark, is probably labour. It is an important factor. There is still a substantial level of unemployment but it is accompanied by a large number of unfilled jobs at low rates of pay both in rural and urban industry, and it is clear that the 1980s are liable to initiate a race between rising costs and rising skills. Just as Malaysia exported substantial cohorts of labour—much of it illegal—to Singapore and the Middle East during the 1970s, so the late 1970s and the beginning of the 1980s have seen a very large influx of labour—nearly all illegal—from Indonesia and the Southern Philippines. Moreover, this illegal immigrant labour has become economically important to the extent that its sudden removal would significantly reduce estate production and would probably seriously slow down much development work in Sabah.

POLITICAL ASPECTS

Those are some of the main features of the economic situation. Let us turn next to some of the political aspects. Political circumstances, external as well as internal, are also an important component in the environment to which Malaysians have to adapt. External factors have included cutting the apron strings of British influence, not simply in the single act of Independence in 1957, but as a continuing process that began long before 1957 and was still incomplete in the late 1970s. Other external factors affecting Malaysia's adaptive situation and its development have been the rise and decline of American military presence in the region, the unexpectedly rapid evolution of ASEAN as a political and economic institution, the emergence of Vietnam as the most powerful military force in the region, behind which lies a strong economic potential that may become of great significance some time in the future if it can ever get into its stride. The possibility of China becoming a major economic force is also growing. All these factors are likely to affect the external environment of Malaysia during the 1980s and 1990s.

Internally, political forces in the 1970s had been concerned primarily with adapting to the tensions deriving from the polarization of economic and political power on racial lines, a phenomenon that arose in World War II, and which intensified after Independence.

¹ For example, laxity and misuse of Bank Rakyat funds on a large scale was reported to Parliament in a White Paper in 1979.

The dangers of this polarization increased to an explosive point in 1969, and this shocked the Government into the substantial revision of policy and planning now known as the New Economic Policy (NEP).¹ An important part of the analysis that follows will be concerned with following through the effects of these revised policies, seeing where they have been successful in reducing the tensions they were intended to counteract, and assessing the extent to which they have given rise to, or augmented, other polarizations and tensions which now require consideration.

POLARIZATIONS

Let us now examine this concept of polarization. Polarization is the development of differences along an axis of change, which become a source of conflict and tension to which people are forced to adjust. The source of conflict leads to action, and especially to political action, and is an engine of change. The energies developed by these tensions build up when the polarizations have been ignored or inadequately taken into account in planning, and are liable, sooner or later, to reach an explosive point, as they did with the socio-economic polarization by race in 1969.

The 1969 racial riots in Kuala Lumpur provided a good example of this process. Before and immediately after Independence, Malaysian planning worked largely on the assumption that the most important axis of polarization in Malaysian society was the polarization between poverty and affluence. It was assumed that by increasing the size of the national income most of the other problems would be automatically reduced. The existence of a Malay/Chinese polarization and the resulting tensions were recognized, but inadequately. They received something more than lip service but not by any means enough action to take care of them. As a result, the growing tensions led inexorably to the explosion point, and then to the change to the New Economic Policy, which concentrated a very large part of the power and resources available to the Government to counteract this particular polarization.

This in turn has been creating or augmenting other polarizations during the 1970s. It is necessary for these polarizations and these

¹The New Economic Policy was outlined in detail in Chapter I of the Second Malaysia Plan (Malaysia, 1971). In brief its main objectives were summarized as follows: 'Comprising two prongs, the NEP seeks to eradicate poverty among all Malaysians and to restructure Malaysian society so that the identification of race with economic function and geographical location is reduced and eventually eliminated, both objectives being realized through rapid expansion of the economy over time.' (Ibid., p. 7.)

tensions to be recognized clearly, and to be dealt with before they also reach the danger point. The number of such polarizations, with resulting tensions, is increasing and this proliferation is largely due to policies now being implemented, and to some extent also to the economic growth that is being achieved. It is a natural process resulting from powerful interventive actions by the Government in fields where, inevitably, some of the facts are imperfectly known.

In what follows some of the main axes of polarization becoming important for the 1980s and 1990s will be mentioned. These include the increasing polarization between rich and poor, which is beginning to transcend race rather than just to augment the earlier racial tensions. There is also the polarization between Sabah and Sarawak, and Peninsular Malaysia, with all of its accompanying components and tensions. A third important and growing polarization is that between urban and rural communities. A fourth is that between Muslim and non-Muslim influences. Finally, the discussion leads to an examination of the question of how Malaysia is changing the rules of the game about Who Gets What, and Why.

WEALTH AND POVERTY

Let us deal first with the polarization between rich and poor. This polarization has always been present in Malaysia; there have always been rich people and there have always been poor people. But prior to the 1970s, the polarization of poor and rich corresponded to a significant extent with the polarization of Malays vs. other races, and the polarization between poor and rich tended to be subsumed into, and overshadowed by, the racial aspects of the matter. This was a particularly important factor in the Malay rejection of Communist terrorism, which was seen by the majority of the Malay population largely as a movement of racial Chinese. The uprising was in fact mainly Chinese in composition and it was not seen as something that was assisting the Malay poor, but was seen by Malays very much more as something that was assisting one form of Chinese domination to replace another.

However, with the formation of a new type of urban proletariat, which for the first time includes a substantial Malay component, it seems that the conditions are now emerging in which the polarization between rich and poor could begin to transcend racial barriers. There is now a substantial number of Malay millionaires, and a large new Malay middle-class which is very well off, whilst on the other hand there are now many poor urban Malays as well as poor urban non-Malays. These distinctions even extend to the rural areas, where most of the Malays live, because a quite separate Malay middle-class

has been created there too, largely through the new land settlement programmes. These have settled substantial numbers of fortunate Malays in conditions which give them a very large income by Malay rural standards. They have become many times better off than the great majority of the Malay village people, who live in conditions not affected by these programmes. This may become important because the absence of a common cause between the Malay and Chinese poor has, in the past, been one of the main bulwarks in Malaysia against the Communist movements that have succeeded in a number of the countries to the North and North-east; it is not the only bulwark, but it is one of some importance nevertheless.

RURAL/URBAN POLARIZATION

Associated with the changing composition of the rich/poor polarization has been a series of important changes affecting the rural/urban dichotomy. Most obviously, urbanization has rapidly increased during the 1960s and the 1970s, and the urban population is much greater, both in absolute terms and as a proportion of the total population, particularly in Peninsular Malaysia. In the Peninsula, the urban population increased from 2.5 million in 1970 to an estimated 4.1 million in 1980. This very large increase is itself a social phenomenon of great significance, but perhaps even more important is the racial and age composition of this population. In particular, Malay urbanization in the 1970s proceeded more rapidly in Peninsular Malaysia than that of other races, and a significant part of the most recent Malay migration to the main cities has comprised young single persons seeking employment at low wages in unskilled factory jobs. This aspect of Malay migration is liable to produce a social revolution in Malay life. This is because the returns for such employment are adequate for single unmarried life but not for establishing urban families, whilst the prospects for advancement and for higher earning power for a large proportion of these low-skilled workers are not immediately encouraging. This, plus the removal of young people from the guidance and example of the elder people of their village society, and their exposure to unprecedented freedom of personal behaviour, is liable to produce the elements of a Malay urban proletariat for the first time in Malaysian history.

Not only does this have far-reaching implications for urban economic, social and political life, but it is also beginning to produce serious problems in the rural village societies. The loss of the young adult segment of village society is becoming quite noticeable in some areas, whilst the increasing scarcity of young adult kampung

labour is reducing rural output, especially of rubber and padi from the less organized old established village areas. Rural incomes in some kampung areas are accordingly beginning to fall, even to the extent that some quite high yielding stands of rubber are being neglected and irregularly tapped. The tendency in kampung life is for the middle-aged Malay producer to rely on the younger generation for much of the field work, and village income has been affected by these trends, though not as much as might have been expected because many village households now receive small cash contributions from members of their families working in the towns.

How this rural/urban polarization will develop is not particularly clear at the beginning of the 1980s. As the number of Malays settled in the towns increases, the difficulties facing young migrants in making their first move out of the rural environment into urban residence and employment are reduced. Also, as reports from family members and friends of the possibilities and attractions of urban life become more widespread, the drawing power of the towns increases. On the other hand, there is the possibility that the difficulties of supporting a family on low urban wages and in urban conditions may eventually bring a counter tendency attracting some migrants back to the kampungs and rural employment. There seems to be little doubt that the cash income possibilities for Malays in rural areas are often higher than those in unskilled factory employment, whilst the living costs are lower. Where the shortage of young Malay labour becomes most acute, these counter-urban attractions may be expected to increase. Whether this will eventually produce any back migration from the cities will depend on many things, including the strength of the 'bright lights' effect, the degree to which the process of becoming accustomed to urban facilities is reversible, and the developments in the wage/skill spiral as Malaysian manufacturing becomes more sophisticated, and competition for the low skill and low wage international market develops in other poorer countries of the region. Another factor will be the effects of immigration from Indonesia into the Peninsula, and from the Philippines and Indonesia into Sabah and Sarawak. If this inflow (mostly illegal) continues unchecked, or if it is legalized and facilitated—as some estate representatives have urged—the upward pressure on rural wages may be substantially reduced, and the attractions for return to rural employment will be even less strong.

The second and third generation urban Malays are, in any case, unlikely to be affected by such backward attraction. Raised in the urban environment, and with the benefit of urban schooling, they are more likely to qualify for better paid employment and better urban living conditions.

EAST/WEST MALAYSIA POLARIZATION

Next let us deal briefly with the polarization between East (Sabah and Sarawak) and West (Peninsular) Malaysia. Malaysia is divided into two main regions by a very large expanse of open sea. Peninsular Malaysia is geographically the smaller part, by far the more populous, and by far the more commercially and economically developed. It is richly endowed with natural resources for mining and agriculture, and it has a well-equipped infrastructure—communications, commercial and industrial capacity, law and order, health, education and all the other services necessary for efficient utilization of these resources. It is the world's leading source of natural rubber, palm oil and tin. It has some sources of modern energy from hydro-electric schemes; there have been some recent oil discoveries, and there are also considerable sources of natural gas. In the last two decades, very large additional land areas (over 1 000 000 hectares) have been brought into production and supplied with services, and this process is continuing apace. At the beginning of the 1980s, Peninsular Malaysia still has considerable unused land for development with the use of public capital and it will be some time before this becomes scarce in any absolute sense, although of course the cost per unit of land development has already begun to increase.

Sabah and Sarawak, on the other hand, is very much larger in land area. It is only sparsely populated, and as yet only partly explored for its mineral resources, although the main reservoirs of oil so far exploited in Malaysia are off the shores of Sabah and Sarawak. This latter has been, of course, a very large and important economic resource, not only for Sabah and Sarawak, but for Malaysia as a whole. It is from Sabah and Sarawak that Malaysia's oil production has come in the 1960s and during most of the 1970s and it looks like continuing to be an important source, particularly of liquefied natural gas exports, in the 1980s and 1990s. Sabah and Sarawak also has large commercial exploitable forests of high value, and its agricultural potential of as yet unopened arable land probably exceeds the total of what has been developed in Peninsular Malaysia to date.

Sabah and Sarawak are however poorly provided with communications, and in particular with roads, which are difficult and expensive to construct owing to the fragmentation of the coastal plains by large rivers flowing from the steep mountainous interior. There were no large cities in Sabah and Sarawak by the end of the 1970s and the main towns were only moderately well supplied with commercial, industrial and other services. Transport communications

with the rest of Malaysia are well developed only by air and then to only a small number of urban centres.

Physically Malaysia is very markedly divided between East and West and the sheer distance and difficulty of transportation between the two is such that this division must remain a major factor for decades to come. But it is not only physical and economic geography that divides Sabah and Sarawak from Peninsular Malaysia. Ethnically, they are almost equally disparate. In Sabah and Sarawak, even that small minority who call themselves Malays are mostly not closely related ethnically to the Peninsular Malays. In Peninsular Malaysia the Malays regard themselves as the indigenous people and as such they have a special position which is recognized by the Constitution and which the new economic policies seek to translate into economic terms. But in Sabah and Sarawak, the Peninsular Malays are in many areas regarded as intruders by the indigenous people. What is more, most of these indigenous peoples are not only not Malays, but at the end of the 1970s, the majority were not even Muslims. In most ethnic and cultural respects they have more in common with other Borneo people across the Indonesian border than they have with most Peninsular Malaysians.

Peninsular Malaysia has become accustomed to operating as a coherent political unit during several generations, and although there is still some degree of polarization between East Coast and West Coast States, and to a lesser extent between North and South, there are cohesive factors. Common linguistic, ethnic and religious ties amongst the Malays, and the common origin, culture and economic ethos of the Chinese, together with the more disparate but historically and politically well established bonds of cohesion between the Indians, all added to a common history of recent but quite thorough adaptation to some important British type institutions, provide a strong unifying basis. In this, the racial polarization between the Malays and the rest, and in particular between the Malays and the Chinese, had, up to the end of the 1970s, been the major and almost only, source of divisive tension.

There had been a somewhat similar type of polarization in Sabah and Sarawak before its incorporation into the Malaysian political union. This polarization had one feature in common with that which had developed in Peninsular Malaysia, namely that the immigrant Chinese to a large extent dominated the private sector of the economy, and this was resented by many of the indigenous peoples. However in other respects there were substantial differences. First, the numbers of the Chinese immigrants were smaller, and the indigenous races were in less danger of being swamped by the immigrants. Secondly, there were many quite distinct indigenous races,

with separate cultures and languages, and with very little in common, apart from their inheritance of British-type institutions in recent generations.

There is in fact not a great deal to bind most of the people of Sabah and Sarawak to Peninsular Malaysia other than the common feeling of distinction (coupled with some jealousy) between them and the Chinese minority, and the common colonial experience. British colonial-type institutions, and the brief Japanese military interlude, have coloured the attitudes and thinking of the last few generations of East Malaysians as well as West Malaysians. The resurrection of the old Malay term 'bumiputra' to encapsulate the common interests of the indigenous Borneo races with those of the Malays in both territories is really effective only in emphasizing their common cause against Chinese economic superiority. In practice it does little to modify the common reaction of the Borneo peoples to the Peninsular Malays.

The seriousness of this East-West polarization is emphasized by the problems the contributors to this book have found in getting the information they need about the Sabah and Sarawak aspects of their topics. In the nation's capital, and in Peninsular Malaysia generally, information and interest concerning the affairs of Sabah and Sarawak have been relatively lacking, and it is clear that they do not yet comprise as integral a part of the political and social life of Malaysia as they do of its economic life.

RELIGIOUS POLARIZATION

The idea that religion is not an important and proper element in the formation of public policy is one of the absurdities of the last half century. It is an idea that is now collapsing around the world.

In any country or society, religion plays an important part in man's adjustment. In Malaysia it is more so than in many other places, because in addition to being a multi-racial society, it is very much a multi-religious one. Man's relationship to God affects not only himself, but also his relations with the outer world and to his fellow man. In Malaysia one's fellow man may be Muslim, Buddhist, Taoist, Confucian, Hindu, Parsee, Christian or Marxist, to name only some of the possibilities.

Religious differences have existed in Peninsular Malaysia from before the beginning of recorded history there. Little detail is known of religious developments before the coming of Islam, but there is no doubt that the peoples of the Peninsula were influenced by Buddhism, Hinduism and native animism, in somewhat the same way as much of Indonesia. It would have been some combination

of these influences that Islam replaced in Malaysia in the fourteenth and fifteenth centuries.

A remarkable feature of the Islamization of Peninsular Malaysia, as of the subsequent multi-racial and multi-religious history there, is the rarity of religious warfare and of attempts to conversion by the sword. For most of its known history, Peninsular Malaysia has been governed by Islamic Princes, and virtually all of the common Malay people have also been of the Islamic faith. During this period the proselytization of Malays by other faiths has not been permitted, but a remarkable tolerance has been exhibited, by the Malay governments and by the Malay people, towards the practice of non-Islamic religions by peoples of other races. This has extended not only to Christianity, Judaism and the higher forms of Buddhism, which were inherently not particularly offensive to Muslims, but also to the less sophisticated forms of Indian and Chinese religion which, to Muslim eyes, must appear to be idol worship.

This religious tolerance and freedom to worship according to the individual's own conscience, which is written into the Constitution, has to date been an important facilitating factor in Malaysian development, enabling people of many races to work together without fear of restriction in regard to their religious beliefs. In other words, for most of the historic period of Peninsular Malaysia, religious polarization has not been the cause of serious political, economic or social strains. Whether this can be expected to continue in the 1980s and 1990s is, therefore, a question of some importance.

There are many, particularly among the Malays, who see no reason to doubt that it will continue indefinitely. In support of this view, they point not only to the constitutional safeguards, but also to the long history of tolerance by Malays in the past. On the other hand, some of the non-Islamic peoples are not so sure. The same constitution that guarantees their freedom of worship also virtually guarantees Malay majority control of the legislature. Without interfering with the freedom of worship, it is perfectly possible for the law-making bodies to outlaw many acts that are at present permitted to non-Islamic citizens, and to impose severe Islamic punishments for their breach. A law forbidding the charging of interest would not interfere with any religious practice, and would not infringe the Constitution.

There are three factors in the situation at the beginning of the 1980s that seem to make the development of some greater degree of religious polarization a possibility in Malaysia. First, there is the external influence derived from the development of fundamental Islamic revival movements in a number of Islamic countries else-

where in the world. Pakistan and Libya are examples where the revival is not only radical, but also missionary. These have served as examples and sources of encouragement to those Muslims in Malaysia of similar inclination, whilst the enormous flows of wealth and capital to certain Islamic countries as a result of the oil price revolution have provided financial backing for such movements on an international basis.

Secondly, until very recently Malays have been almost wholly a rural people, the vast majority of whom received their religious education at an early age in the village religious schools, where religious leadership was mainly indigenous, locally based, and strongly influenced by the various Sufi orders established throughout rural Malaysia. These Sufi orders have in Malaysia been mainly ascetic, non-violent and tolerant. However, one of the Government policies that has been most successful in raising the relative competitive status of the rural Malays in modern Malaysian life, has incidentally become a major factor in undermining the system at the base of the Sufi religious influence and the religious education of the Malays. This is the very effective programme of rural education which has replaced the village religious schools with new educational opportunities of superior academic status. The result has been, however, that whereas twenty years or so ago practically every Malay was literate in the Arabic script, and had first hand acquaintance with the Koran and its teachings, this can be said of only a small proportion of Malays under 30 years of age at the beginning of the 1980s.

Thirdly, a remarkably large number of the younger generation of rural Malays, including many young girls, have left the kampungs during the 1970s to become town dwellers. In this new environment they are removed from the gentle influence of village family and religious institutions, and what religious guidance they do receive comes through the media, or from urban-based religious movements, and is very much more influenced by fashionable foreign-based teachings and by what goes on in the world of Islam outside Malaysia.

The result is that the past is no longer a valid basis for assessing the likelihood of the development of an active and stressful religious polarization, at least in Peninsular Malaysia. There do seem to be factors at work that may reduce the influence of the Sufi rural orders, that may leave a larger proportion of the Malay population exposed to the influence of Islamic movements originating in other less conservative parts of the world. With only a superficial acquaintance of the outward ritual observances of their religion, many Malays have no basis from which to judge such movements. These

factors leave an increasing proportion of the Malay population vulnerable to eloquent pressure groups from outside as well as from within, and could be a further cause of dramatic and as yet unexpected, changes in the shape and values of Malay society.

From most other religions and beliefs current in Malaysia there appears to be little to suggest any likely independent contribution to religious polarization so far. Even in Sabah and Sarawak, where the religious situation is more complex, and Islam less dominant, stressful religious polarization does not seem likely in the 1980s, unless it is transferred from Peninsular Malaysia in one way or another.¹ However, in the 1980s and 1990s Peninsular Malaysia may need to take deliberate steps to avoid policies that encourage the development of religious polarization. It is true that Confucianism and Taoism are basically gentle, non-violent religions, as have been the Sufi orders of Islam in Malaysian history, but Communism, on the contrary, is a religion that accepts violence as justified by its ends, as do some of the more radical forms of Islamic revivalism now growing in some other parts of the world.

POVERTY AND DEVELOPMENT

Development is very largely concerned with the removal of poverty, in one way or another, and in Malaysia as it enters the 1980s this remains true. However during the preceding three decades the sense in which this truism applied has changed, and three distinct phases can be distinguished.

The first stage, which motivated the earlier efforts at national planning, was based on the theorem that Malaysia (or Malaya as it then was) was fundamentally a poor country, and that the prime requirement was to increase the size of its economic cake in order that there should be more to go round for everyone. During this stage, which continued until the end of the 1960s, some attention was given to the problem of distribution, and particularly to distribution between races, but this was subservient to the main objective, which was economic growth.

The second stage commenced with the Second Malaysia Plan. It reversed this order of priority, and made correction of the racial imbalance in the incomes and ownership of the economy the main objective, with economic growth still desired but secondary. In this stage it was realized, and accepted, that the racial redistribution of benefits would involve changes that would limit the pace of overall

¹The stresses associated with the conversion to Islam of some previously Christian indigenous groups in Sabah in the early 1970s provide an example.

economic growth. However, the fortunate position of Malaysia with its exceptional resource endowment, good infrastructure and high technology, was such that the growth aspect of economic change was almost able to look after itself. The country thus did not suffer seriously from the priority given to redistributive processes over growth. As has been seen in the earlier sections of this chapter, a great deal was indeed achieved in the way of redistribution in favour of Malays during that stage, the most significant component of which was perhaps the effective creation of a substantial, and quite affluent, Malay middle class, in both rural and urban areas.

The third stage gradually became established during the course of the Third Malaysia Plan. The main innovation of the third stage was a slight, but important change in emphasis in the redistributive aims of the planning, and the deliberate introduction of a closer relationship between redistribution and growth. Redistribution was still the prime objective, but more attention was paid to the two-pronged aspect of the overall attack, with racial imbalance on the one hand, and poverty irrespective of race on the other. What is more, much emphasis was given to the fact that it was to be the *increase* in national income that was to be redistributed, so that, though the poor, and the Malays, were to be better off, this should not involve any segment of the population becoming worse off. These aims had all been specified in the original statement of the New Economic Policy, but the emphasis given to their implementation increased during the late 1970s.

By the beginning of the 1980s there could be little doubt that this joint policy has had some success. Rural poverty, in particular, appeared to have been alleviated in many areas, despite difficulties caused by a severe drought in 1977-8. In the urban areas, average incomes had increased substantially, though there remained pockets of severe poverty and considerable urban unemployment. However these results were due in the main to three factors. First, commodity prices on world markets had been particularly favourable, and were the main cause of the encouraging rural result, especially in rubber producing areas. Secondly, the manufacturing boom was the main engine of growth in urban areas, and also indirectly helped many of the longer established rural kampungs by drawing off surplus labour (and sometimes more than the surplus) and by providing a back flow of remittances to many rural families. Thirdly, a very satisfactory level of government revenues enabled the provision of additional amenities, both rural and urban, thus simultaneously sustaining employment and improving the quality of life for a wider section of the population.

On the other hand, concealed within this result were some less

promising features, for despite the price rises, the growth of physical production of several important rural products declined, and there were some first signs that a check to the growth of manufacturing was a possibility through wage increases and/or industrial trouble. This would in turn tend to reduce the attractiveness of Malaysia as a venue for international investment of this type, and increase the relative attraction of potential competitors in these fields, such as Indonesia. There seemed to be little ground for complacency regarding the indefinite continuation of these favourable conditions, even with the oil and natural gas prospects. In particular, three groups of rural producers are proving especially difficult to extract from the grip of poverty, the padi producers, the older established smallholders and the artisanal fishermen.

Therefore, for the 1980s, and perhaps for the 1990s as well, the burst of success in the war against poverty during the term of the Third Malaysia Plan is not as encouraging as may at first have appeared. The basic problem of matching the growth of population by opening up new land, by replanting and higher productivity, and by new urban employment has been, to some extent fortuitously, alleviated for a period, but it has not been removed. What is more, the rapid increases experienced in petroleum revenues seem almost certain to taper off during the next two decades, and before this goes very far, Malaysia will have to solve its problems of poverty and imbalance, or be left to tackle them when financial and trade conditions may be considered less favourable.

In the medium and long term, therefore, the solution to Malaysia's development problems is not likely to be found in the continuation or expansion of the oil and simple low-cost manufacturing which so eased the situation in the late 1970s. On the contrary, the more difficult paths of rural agricultural development—*in situ* as well as opening new land—and of increasingly sophisticated manufacturing with higher skills and wages, will have to be relied upon. Malaysia has gained a most valuable respite through its good fortune, but it is essential that it be recognized as such and the opportunity taken to prepare for the time when the respite is over.

WHO GETS WHAT, AND WHY

Part of the environment to which people adjust in any country can be changed by legislation and administrative action. This has been done in Malaysia, with the intention of discriminating between the Bumiputra and the other sections of the population, over a period of many decades. During the two decades preceding the 1980s, and particularly during the 1970s, this process had been accelerated

and strengthened with a view to redressing the economic imbalance between the races.

In this some considerable success had been achieved, though not in all the directions originally planned. At the same time the measures taken have modified in certain important respects the rules of the game of Who Gets What, and Why, and this in turn has had other effects, some of which were unintended, and some of which are undesirable from a national point of view. During the 1980s and 1990s the effects of these changes will have to be lived with, or modified in turn. It is therefore important that the main dimensions of these effects should be examined and considered.

The purpose of the intervention has been simply to increase the share of the wealth of the country flowing to, and controlled by, the indigenous people. This has been done by giving the Bumiputra advantages that enable them to compete effectively with people of other races who were more experienced and otherwise better placed, whether as entrepreneurs, wage and salary earners, rural producers, or in the ownership and control of public companies.

Basically the problem has been that historically the Bumiputra came from a rural background in which land had not been particularly scarce. Most of their ancestors could manage to secure a living of modest proportions in a relatively easy-going village society where exceptional wealth was rare, and was usually associated with political and family status—who you were—rather than productivity. On the other hand, early migrants of other races were mostly people who had left their own countries because of the difficulty of getting even a modest living, and had sought in the Malay Peninsula the opportunity of bettering their fortunes through enterprise, wage labour and commerce. For these people success in the pursuit of wealth depended firstly on luck, and then on superior skill, enterprise or hard work. This fitted in well with the liberal ethic introduced by the British in the nineteenth and early twentieth centuries, and which indeed at that time was the general basis for economic activity in most of the advanced nations of the world. Under this system, the theory was that by and large the greatest rewards in wealth and income should go to those who were successful in the system of enterprise, production and exchange.

Under these circumstances until World War I, the Bumiputra tended to specialize in the cultivation of their traditional landholdings in the rural areas, and in political life (mainly those of royal or other distinguished family connections), whilst the people of outside origin tended to specialize in what subsequently became the modern sector of the economy—mining, large scale commercial agriculture, commerce and services.

This distinction between the modern and the traditional sector is an important one, but it was not recognized quite how important until round about the time of World War II.¹

However, by the time it was widely recognized that the indigenous Malays were losing out in this respect, it was too late for the Malays to compete on equal terms with the people of foreign origin in these activities. The people of other races, after generations of specialization, experience, educational preparation, and accumulation of capital and skills, were in a position to beat almost any Bumiputra in open competition for opportunities in the advanced sector. This applied to business and industrial opportunities, mining opportunities, and even agricultural opportunities where the scale of operation was larger than that of the usual kampung family farm. It also applied to jobs in the public service, wherever qualifications, experience and efficiency were the sole basis of selection and promotion, because few Bumiputra had the chance to secure the education and experience required.

To meet this situation, it has been necessary to provide the Bumiputra with special opportunities to compensate for the disadvantages they suffer in open competition. This started a long time ago, when special arrangements were first made to facilitate the training of Malays in the Peninsula for the most important fields of government service, both by providing special educational facilities for some specially selected Malays, and preferential selection systems for their recruitment. This worked quite well up to a point, and by the time of Independence, Malay membership of the Malayan Civil Service, and certain other important components such as the Education Service, was very substantial. It is widely recognized that the Malaysian government services are generally of very high quality, and this owes a great deal to the leadership and example of Bumiputra members of the service who first gained entry under this type of arrangement.

However, when those senior Bumiputra public servants served their cadetships, the special preference applied only to their training and selection; after that, promotion and postings were on the basis of ability and experience. Subsequently this rigour has been relaxed somewhat, and the political need to have a Bumiputra in many sensitive positions has at times overridden other promotion considerations. The result has been that drive, ability and the willingness to take responsibility, so much a characteristic of the senior officers at the top of the various departments, is sometimes less in

¹ There were a few exceptions, to one of which Ungku Aziz drew attention in his book *Jejak-jejak di Pantai Zaman* (1975).

evidence among the second and third ranks of the service. As these will be the people who will have to take over responsibility for the implementation of Malaysian planning in the 1980s and 1990s, this could be an unforeseen and unwanted result from a good policy that has eventually gone too far.

Action to facilitate Bumiputra entry into the private sector of the economy has been effective only in more recent times. It has included again certain preferential arrangements in the field of education, of which some components, such as the Mara Institute of Technology, have made a large and innovative contribution. It has also included some strong incentives to private firms to employ varying proportions of Bumiputra at certain levels in their establishments. This means initially that the Bumiputra gains entry where candidates of other races might otherwise have beaten him to the job. It also provides an incentive for the firms concerned to promote Bumiputra employees where they are suitable, but provided the incentives are not overdone, this will not do any harm. If it were pushed too hard, however, it could seriously reduce efficiency and profitability, and thus act as a disincentive for investment and development in the private sector.

Finally, intervention has been attempted in the field of ownership and control of public companies through the compulsory allocation of certain proportions of shares to Bumiputras.

This has had some strange effects, including the need to provide public funds to purchase the shares for the Bumiputra in the first instance. By the beginning of the 1980s, Government had invested very large funds in private corporate enterprise to be held in trust for the Bumiputras, as part of its policy of building up Bumiputra ownership to 30 per cent by 1990. Early in 1980, the Government indicated that it intended to disperse much of this holding to private Bumiputra ownership during the 1980s. This is a necessary move if Bumiputra ownership and control in the private sector is to grow in any real sense, and not just in name. How the transfer is to be effected is, however, a matter of great interest, and will raise further issues of great importance. Care will be necessary to achieve effective and competent Bumiputra participation in the management and direction of private corporate enterprise, on the one hand, without exacerbating unduly inequalities of wealth between Bumiputras by concentrating share ownership amongst a small rich élite, on the other.

CONCLUSIONS

In the chapters that follow the main factors underlying the policy decisions to be made in the 1980s and 1990s are considered in de-

tail. The actual decisions required at any one time will be dependent on a manifold of circumstances, internal and external, and cannot be forecast in any scientific way. However, the issues raised and discussed in this book are fundamental, and must form the framework within which most policy decisions will eventually need to be made.

Some of the problems that have been major policy considerations during the 1960s and 1970s, such as those associated with the multi-racial nature of Malaysian society, and the imbalance on racial lines between economic and political power, will clearly still have to be faced in the 1980s and 1990s. The running down of Malaysia's known stocks of non-renewable resources will remain a fact of life, whether or not it is alleviated to some extent, or even superseded, by the discovery of other resources of importance of some kind or another. Policies already implemented to meet problems existing and recognized in earlier decades, have in some cases themselves given rise to new ones that will have to be faced in turn. Pollution and other growing threats to the environment, problems of rapid urbanization and associated demand for new social capital, labour shortages in some sectors and the questions of how to control, and whether to encourage or restrict the flow of immigrant labour, are examples. The New Economic Policy itself has produced some new problems of this kind, and has exacerbated others already existing. These new problems will have to be faced in the next decade or so, like it or not.

In the course of the book it will become apparent that the problems so created or emerging are, in general, not singular and clearly distinguishable, definable within any one discipline, but rather clusters of problems transcending many disciplines, and reaching out widely into the social, economic, political and physical aspects of Malaysia's situation. For this reason the disciplinary compass of the book is wider than that of most books that have attempted to deal with the subject of Malaysian development in the past.

2 The Geographical Setting

SITUATED in the humid tropics between 1 degree and 7 degrees of latitude North of the Equator, Malaysia comprises the Malay Peninsula and the states of Sabah and Sarawak in North West Borneo. Malaysia covers an area of about 340 000 square kilometres, 60 per cent of which are in the two Borneo States. It is endowed with an equable climate, good rainfall, abundant arable land, productive forests, and mineral resources that include tin and petroleum.

Geographically, Malaysia thus has several more or less distinct parts, and as pointed out in Chapter 1, the distinction is at times important for political, social or economic reasons. The most obvious, and in some ways the most important distinction in Malaysia at the end of the 1970s, was the distinction between Sabah and Sarawak, and Peninsular Malaysia. The geographical basis for this distinction is clear from Map 3.1 which shows that the average distance between the shores of Peninsular Malaysia, and Sabah and Sarawak would be roughly 1 000 kilometres or more. This distinction is not, however, simply geographical, for there are important ethnic, social and political distinctions as well.

The importance of these distinctions is made greater by some aspects of the distribution of resources, and of economic and social development, between the two segments. At the end of the 1970s, Sabah and Sarawak were less populous, and less developed than Peninsular Malaysia. They are also very much larger in land area, and contain large reserves of as yet unutilized natural resources.

There are lesser, but still important, differences between parts of Peninsular Malaysia, and particularly between the highly developed and multi-racial West Coast States on the one hand, and the less developed but predominantly Malay states of the East Coast. Here also, the distribution of resources is of significance, because the larger part of Peninsular Malaysia's unutilized resources of land, and most of its new energy prospects, are located in the East Coast regions. For these reasons, it is largely to the East Coast of Peninsular Malaysia, and even more to Sabah and Sarawak, that Malaysia

must look for its long-term new agricultural and energy development. Many of Malaysia's important issues for decision in the 1980s and 1990s will therefore centre around the distribution of resources for development, and the political, social, economic and environmental constraints on their use. It is with these aspects that this chapter on the geographical setting is concerned.

In the earlier years of Malaysia's development, roads and railways were constructed to connect tin and rubber producing areas to the coastal ports. Later, new roads were constructed to open up potential agricultural land. This pattern is described in Chapter 3. Settlements were also established on estates and in large areas developed as smallholdings, followed by the provision of social and economic infrastructure.

There are many changes developing in Malaysia's economy as she enters the 1980s. The rapid growth of manufacturing is one major source of change; the discovery of oil and gas off Trengganu is another, though this will not be a permanent feature. Another major factor which may shape the economic scene of Malaysia in the late 1980s and in the 1990s is the gradual depletion of her natural resources, particularly forestry, marine fish, tin, and oil.

All this will require new adjustments to meet the changing situation. In the 1980s, new types of development will be taking place. The development of aquaculture, deep water fishing, and integrated timber complexes are examples. It is the purpose of this chapter to examine the present and future status of the natural resources of Malaysia, their contribution to the internal and external economy, their future potential, the geographical problems associated with their future development, and the practical and physical limitations on their extraction.

AGRICULTURE

Agricultural Resources and their Geographical Distribution

Of the total land surface of Malaysia, approximately half, or 15.2 million hectares, is suitable for agriculture (Table 2.1). More than half of this cultivable land is in Sabah and Sarawak, with the larger proportion in Sarawak. In Peninsular Malaysia, the largest areas of cultivable land are in the States of Pahang, Johore, Perak, Kedah, Kelantan and Trengganu.

So far, Malaysia has brought into use only 30 per cent of her total cultivable land. Agriculture is fairly well developed in the Peninsula, where 64 per cent of the cultivable land is under crops; another 36 per cent remains to be developed.

TABLE 2.1
 Malaysia: Availability of Cultivable Land, 1979
 (in million hectares)

<i>Land Surface</i>	<i>Peninsular Malaysia</i>	<i>Sabah and Sarawak</i>	<i>Total</i>
Area of land surface	13.0	19.6	32.6
Cultivable land ¹	6.4	8.8	15.2
Area under cultivation ²	4.1	0.5	4.6
Area available for new cultivation	2.3	8.3	10.6

Sources: ¹Malaysia, nd., c.
²Malaysia, 1979b.

In Sabah and Sarawak, agriculture has been extended only to 6 per cent of the potential agricultural land. There is vast scope for agricultural development there in the 1980s and 1990s, but insufficient labour to develop these at the pace envisaged.

Table 2.2 shows the area under various major crops in the Peninsula and Sabah and Sarawak.

Contribution to the Internal and External Economy

The two most important crops to the economy of Malaysia are rubber and oil palm. Together, they accounted for 47 per cent of the total agricultural output in the late 1970s. Their total produc-

TABLE 2.2
 Malaysia: Area under Cultivation by Types of Crops, 1979
 (in hectares)

<i>Crops</i>	<i>Peninsular Malaysia</i>	<i>Per Cent</i>	<i>Sabah and Sarawak</i>	<i>Per Cent</i>	<i>Total</i>
Rubber	1,936,400	94	123,600	6	2,060,000
Oil palm	758,190	89	96,800	11	854,990
Rice	620,400	86	103,100	14	723,500
Coconut	243,722	68	112,778	32	356,500
Sugar	23,800	100	nil	—	23,800
Cocoa	16,425	75	5,475	25	21,900
Pineapple	13,125	100	nil	—	13,125
Tobacco	12,209	100	nil	—	12,209
Pepper	500	4	11,020	96	11,520
Others ¹	507,985	100	n.a.	—	507,985
Total	4,132,755	90	452,773	10	4,585,529

Source: Malaysia, 1979b.

¹Others includes mixed horticulture, market gardening, tea, coffee, orchards, arecanut, bananas, and diversified crops. Their areas are interpolated from Wong, 1979.

tion and that of the other crops is shown in Table 2.3. In 1979, rubber and oil palm contributed 9 and 7 per cent respectively to the total gross domestic product (GDP), and the contribution from the other crops is relatively small.

Exports of rubber earned \$4,509 million in foreign exchange, while \$2,378 million came from crude and processed palm oil. These constituted about 18 and 11 per cent respectively of the total value of all Malaysia's exports. Although Malaysia also exports pepper, pineapples, cocoa beans, and copra (Table 2.3), the export values have been small. However, their values increased in importance in the late 1970s (Malaysia, 1979b). This sector is discussed in Chapter 9.

During the 1980s, it is likely that there will be a further fall in the relative contribution of the agricultural sector to Malaysia's GDP from 42 per cent in 1979 to about 20 per cent (Selvadurai, 1978: 1). This is because growth in the secondary and tertiary sectors of the economy is expected to be particularly rapid. But the value of agricultural production should increase almost threefold within this period.

The employment structure is expected to follow this trend. Employment in agriculture is expected to decline from 40 per cent of the workforce in 1979 to 35 per cent in 1990 since many of the workers will be switching to the manufacturing and services sectors. At the same time total employment in agriculture is expected to increase from 2 million in 1979 to 2.2 million by 1990.

Potential for Further Development and Discovery

The potential for further agricultural development and discovery can be identified under six headings: opening up of new land, use

TABLE 2.3
Malaysia: Agricultural Production and Export Earnings, 1979

<i>Crops</i>	<i>Production (in tons)</i>	<i>Export Earnings (in \$ million)</i>
Palm oil	3,040,000	2,378
Rubber	1,650,000	4,509
Pepper	38,000	152
Pineapples	209,410	63
Cocoa beans	29,000	148
Copra	850,340	nil
Coconut oil	73,627	133
Rice	1,460,000	n.a.
Refined Sugar	462,800	n.a.

Source: Malaysia, 1979b.

of new planting materials, new techniques, new methods of cultivation, new infrastructures, and new discoveries. Labour has become a constraint on agricultural development in recent years, but this has been discussed elsewhere (see Chapter 1, and Chapter 10).

Opening up of new land. This has been a very important part of Malaysia's development strategies in the past, and will continue to be so in the future. Re-planting and raising productivity on existing holdings will remain important as a means of improving rural incomes and reducing poverty, but extensive settlement of surplus rural population is dependent mainly on new land settlement. Moreover, it is in this type of land development that Malaysia's greatest successes have been achieved, and in which its technology and organizational skills have been most effective in producing small scale agriculturalists with above average incomes.

In terms of sheer numbers, the greatest demand for this type of new settlement comes from the densely populated rural areas of Peninsular Malaysia, particularly in the West Coast regions. On the other hand, the areas of land suitable for such new development are in the East Coast States of Peninsular Malaysia, and even more so in Sabah and Sarawak. One of the issues that will have to be faced in the 1980s and 1990s will be whether, and if so how, this gap, and particularly that between West Peninsular Malaysia and the vacant lands of Sabah and Sarawak, can be bridged.

New planting materials. A distinctive feature of Malaysian agriculture is its commitment to research. Through continued research, new technologies in agriculture (in terms of high-yielding and better varieties) have been introduced.

The Rubber Research Institute of Malaysia (RRIM) and some large private estates have for many years undertaken research aimed at producing higher yielding rubber planting materials, reducing the maturity period, and developing new exploitation systems. This highly successful work has given Malaysia the most advanced technology for rubber production in the world, giving Malaysia a comparative advantage over other countries as a rubber producer. Increasingly, this research work has been extended to oil palm, cocoa and other tropical tree crops.

As Malaysia enters the 1980s, the Government is encouraging the coconut growers to replant with a new high-yielding variety, the MAWA hybrid, which is capable of five times the yield of existing varieties. Similar high technology programmes have been initiated for other crops, including pineapples, cocoa, and tobacco.

New techniques. A new tapping system for rubber trees, called the Micro-X system, has been introduced by RRIM. This system uses a rotary injector, which helps to increase the numbers of trees tapped per tapper per day by up to 50 per cent. This system was still being tested in the 1970s, but if it proves viable on a commercial scale it may effect substantial labour and cost savings for the industry.

In addition, the estate sector has begun using etherel stimulants to step up the flow of latex from rubber trees. This has the potential to double the yield per tree in the 1980s and 1990s.

New methods of cultivation. Intercropping, crop rotation and multiple-cropping seems likely to be of increasing importance in the 1980s and 1990s. Intercropping was already compulsory under the coconut replanting schemes at the end of the 1970s, and had been supported for rubber and oil palm planting.

In rice cultivation, crop rotation and multiple-cropping with tobacco, tapioca, banana, and fish culture have been encouraged in some areas.

Another possibility is the development of hill-terracing for rice cultivation as practised in some parts of the Philippines and Indonesia. This could eventually become important in view of the scarcity of suitable land for further expansion of traditional rice cultivation.

New infrastructure. With the completion of the Krian/Sungai Manik Integrated Project, the farmers in these areas will be able to cultivate five crops every two years in the 1980s (Malaysia, 1979b). Another development is the exploitation of underground water supplies for rice farmers in drought-prone areas. One experimental well in Kelantan has produced water for 80 hectares. In 1980, there were 25 wells in the Kedah/Perlis rice areas, and more wells are expected to be developed in the 1980s.

New discoveries. Bris soil, which is abundant on the East Coast, had been considered unsuitable for cultivation of any crop, except coconuts. Late in the 1970s, it was found that this soil was suitable for growing cashew nut and high quality tobacco. Experiments have also been conducted in the use of abandoned mining land for cultivation, and this may produce a useful addition to agricultural land close to some of the major cities.

Problems of Access

Large plantations and organized land settlement schemes are already well served with roads. The earlier land settlement schemes

in Peninsular Malaysia were also sited mostly in areas where relatively little new road and infrastructure development was necessary. However, as the programme of land settlement grew in size and scope, larger and increasingly remote areas had to be tackled. The first of these was the Jengka Triangle in Pahang, and in the 1970s schemes even more ambitious and more difficult of access were undertaken, such as Pahang Tenggara and Trengganu Tengah. This trend, into the more difficult and less accessible areas of land, will inevitably continue, particularly when land development spreads increasingly to Sarawak and Sabah.

The Physical and Practical Limitations on Resource Availability in the Long Run

Problems of environmental damage. Soil erosion will always be a danger because Malaysia has a high annual rainfall ranging from 1 800 mm to over 4 000 mm. Land clearing for agricultural development is particularly susceptible to water erosion. In 1974, there were estimated to be 344 495 hectares of newly cleared land in the Peninsula (Wong, 1979), and this area will have increased with greater emphasis on agricultural development in the Second and Third Malaysia Plan periods. This is added to by the extensive felling of old rubber trees and coconut palms for replanting. Some of the felling of rubber is in hilly areas where erosion can be severe.

The felling of virgin forest for shifting cultivation and logging has had a profound impact on soil fertility. In the Peninsula, logging activities increased during the 1970s but the area under shifting cultivation declined. In Sabah and Sarawak, however, shifting cultivation had already affected 8 million hectares of forest land.¹

The soil under the forest cover is rich in plant nutrient. The high temperature and humidity in Malaysia encourages the destruction of humus and nitrogen in the soil, but this can be countered by continually adding large quantities of organic materials and keeping the soil temperature at or below 25°C, the level at which humus begins to break down. These conditions are found in the virgin forests. When the forest is cleared, the cycle is broken, leading to rapid exhaustion of nutrient capital, and the soil is reduced to a low level of fertility.

Mining is also a destructive form of land use. In the past, large tracts of agricultural land were damaged, either directly through the encroachment of tin tailings or indirectly through flooding as a result of silted rivers (Ooi, 1963). Mining interferes with the soil

¹ 'Asia's Special Problem', *Far Eastern Economic Review*, Vol. 106, No. 48, Nov. 1979.

profile by mixing top soil with the subsoil. The end product is sand with little organic matter and no humus. Attempts to rehabilitate and reforestate the ex-mining lands have been expensive and difficult. Being barren, it is subject to severe erosion. Gully and rill erosion is dominant here, transforming the landscape into bad land as found in Sungai Besi near Kuala Lumpur. (Mohamad Ammin, 1979.)

MARINE FISHERIES

Marine Resources and their Geographical Distribution

Malaysia has three distinct fishing regions. The Peninsular East Coast region stretches from the Thai-Malaysia border to South-East Johore. The Peninsular West Coast region stretches from Pulau Langkawi to the south-west tip of Johore. In Sabah and Sarawak, it stretches from Tanjung Datu in Sarawak to Marudu Bay. The three regions cover 62,230 square nautical miles of water suitable for trawling. The total areas of water suitable for trawling in each region are shown in Table 2.4.

Contribution to the Internal and External Economy

In 1979, the local marine fishery industry supplied about 83 per cent of the domestic fish demand. The rest was imported from other countries, mainly Thailand.

Malaysia exported her high grade fresh fish to Singapore and Thailand and frozen prawns to Japan, the United States of America and the United Kingdom, where high prices were obtained. The total exported in 1979 was estimated at 135 000 metric tons, representing an increase of 8 per cent over 1978. Value added of the marine fishing industry contributed to about 3 per cent of gross domestic product.

TABLE 2.4
Malaysia: Water Suitable for Trawling by Fishing Regions

<i>Fishing Regions</i>	<i>Ranges in Depth (in metres)</i>	<i>Area (in square nautical miles)</i>
Peninsular East Coast	5 to 50	14,825
Peninsular West Coast		
Shallow water	5 to 50	7,425
Deep water	50 to 100	6,500
Sabah and Sarawak	5 to 50	34,480
Total	5 to 100	63,230

Source: Mohd. Shaari, 1976.

At the end of the 1970s, there were about 98,000 persons employed in the marine fishery industry, amounting to about 2 per cent of the total labour force or 4.9 per cent of employment in agriculture.

In the 1980s, it appears that catches from the traditional East and West Coast fisheries of Peninsular Malaysia may decline as a result of over-fishing. Without the introduction of long distance deep-water techniques, only the Sabah and Sarawak fisheries appear capable of much further expansion.

Problems of Access and Resources Development

Access by road to some of the minor fishing ports and villages is difficult because they are scattered along the coast. This complicates the task of providing adequate access to them. Several access roads on the East Coast of Peninsular Malaysia are impassable during the monsoon. In Sabah and Sarawak, owing to its late development and rugged terrain, roads connecting the fishing ports and the interior are few and far between.

Fishing boats are comparatively smaller on the East Coast and in Sabah and Sarawak than those on the Peninsular West Coast. There are still many small tinker boats in the industry, unsuited to modern sophisticated fishing gear. They cannot go out in bad weather and are confined to the shallower waters that are rapidly being overexploited.

Fishing ports, landing jetties, ice-factories, cold storage and packing facilities are not yet well developed. Provision of these facilities is difficult because the fishing centres are dispersed and small. As a consequence, the marketing and distribution of fishery products are relatively inefficient (Malaysia, 1979b).

Resource limitations. There are several factors limiting the exploitation of marine fishery resources. First, there is the limited geographical area of the Straits of Malacca. This limits the territory within which the West Coast fishermen can fish.

The depletion of fishery resources is another factor. The rapid increase in trawling has reduced the numbers of some species through destruction or distribution of their natural breeding grounds (Malaysia, 1979b). This is evident by an increase in fishing effort but a decrease in catch per unit gear (Mohd. Shaari, 1976).

AQUACULTURE

Aquaculture Resources and their Geographical Distribution

Malaysia has about a million hectares of various water bodies which are suitable for aquaculture (Table 2.5). In the Peninsula,

the most suitable water bodies are mainly concentrated on the West Coast. In Sabah and Sarawak, the coastal regions are rich in mangrove swamps, and the suitable area there is about three times larger than that available in Peninsular Malaysia.

In 1978, Malaysia utilized about 10 000 hectares, or about 1 per cent of her available water bodies for aquaculture. There were approximately 16 units of fresh water cages at Chenderoh and Bukit Merah lakes in Perak. Another 40 units of mariculture cages were located in Kelantan, Trengganu, and Penang. Mining ponds, rice fields, rivers, lakes and reservoirs are all used for freshwater culture, but most of these are concentrated in the West Coast of Peninsular Malaysia. Some brackish water cultures (fin-fish, milk fish, cockle, prawn, and oyster) were carried out in off shore Perak, Selangor, and Negri Sembilan in Peninsular Malaysia and near Sandakan and Tawau in Sabah.

In 1978, this industry employed 6,000 persons, some working full-time and some part-time. The production was 9 000 metric tons, comprising only 1.5 per cent of total fish landing.

At the end of the 1970s, aquaculture supplemented the local marine fishery industry in a small way. Still under-developed, its potential for further development is great, with approximately 99 per cent of the potential resources still unexploited.

Problems of environmental damage. The use of poisonous insecticides in the agricultural sector, when transported into the water bodies, causes considerable damage to fish. Because of this, many rice fields, irrigation canals, lakes and ponds have become unsuitable for fish culture.

TABLE 2.5
Malaysia: Availability of Suitable Water Resources for
Aquacultural Development

<i>Types of Water Resources</i>	<i>Area</i>	<i>Possible Uses</i>
1. Freshwater Culture		
Unused mining ponds	1,265	Fish and cage cultures
Rice fields	256,000	Fish culture
Reservoirs and lakes	17,093	Fish and cage cultures
Rivers	33,910	Fish and cage cultures
2. Brackish Water Culture		
Mangrove swamps	650,000	Fin-fish, prawn and cockle cultures
Lagoons	200	Cage cultures
Total	958,468	

Sources: ¹Low Su Ji, 1977.

²Ali Ismail, 1978.

The Malaysian rivers face serious pollution from domestic and industrial wastes. Using the Biological Oxygen Demand concentration and ammoniacal nitrogen content measure, it has been found that the Sungai Kelang Basin is the most polluted in Malaysia, followed by Sungai Perak, Sungai Sepong/Jimah, Sungai Merbok, Sungai Kemaman, Sungai Kedah, Sungai Perai/Juru, Sungai Linggi, Sungai Langat, Sungai Pontian/Pulai/Tebrau/Skudai and Sungai Pahang. However the upstream reaches were mostly still free from organic pollution (Malaysia, 1979b). The major sources of river pollution are sewage and effluents from oil palm mills, rubber factories and tapioca, pineapple, and sugar industries. River pollution is also caused by inorganic industrial material from industrial centres in Kuala Lumpur, Petaling Jaya, and Penang.

Siltation of Malaysian rivers, closely related to mining and quarrying, agricultural and construction activities and the clearing of land, is widespread. Rivers such as the Sungai Kinta, Sungai Perak, Sungai Langat, Sungai Gombak, Sungai Kelang, and Sungai Semenyih, to name a few, have become silted. This reduces the availability of rivers that otherwise could be developed for aquaculture, and it kills many fish species because of the increased pollution and Biological Oxygen Demand concentration in the water.

FORESTRY

Forestry Resources and their Geographical Distribution

During the 1970s Malaysia had become the world's greatest exporter of tropical hardwoods. At the end of the 1970s, there were still about 24 million hectares of forest land in Malaysia. Of this, about 9½ million hectares were in the Peninsular, 9 million hectares in Sarawak, and nearly 6 million in Sabah.

From the total forested areas, there were 13.24 million hectares designated as productive forest, but a portion of this had been set aside for permanent forest reserves (Table 2.6).

TABLE 2.6
Malaysia: Availability of Forest Resource
(in million hectares)

<i>Location</i>	<i>Productive Forest</i>	<i>Suitable for Exploitation</i>	<i>Reserved Forest</i>
Peninsular Malaysia	5.68	4.08	1.60
Sarawak	2.60	2.60	n.a.
Sabah	4.96	2.88	2.08
Total	13.24	9.56	3.68

Source: Malaysia, nd., c.

There were only 9.56 million hectares of the productive forest designated as suitable for commercial exploitation (Table 2.6). Approximately 43 per cent of this was in the Peninsula, mostly in the states of Pahang, Johore, Perak, Trengganu, and Kelantan. The rest was distributed about equally between Sabah and Sarawak.

In Peninsular Malaysia, the rate at which the forests were being harvested at the end of the 1970s was about 370 000 hectares annually, that is, about three times the optimum level of exploitation. This has been rapidly exhausting the lowland forest resource, particularly the dipterocarp forest.

In Peninsular Malaysia, the total area of forest harvested to the end of the 1970s exceeded the area allocated for commercial logging. This indicated two things. First, some logging activities have spread to reserved forests, exemplified by the continued logging of the Endau-Rompin forest reserve (*Sunday Mail*, 25 Sept. 1977). Secondly, it suggested that logging may have extended to the marginal and unproductive forests. Consequently, log production and supply of forest land began to diminish in the late 1970s (Gigot, 1979: 52-4).

In Sabah, the annual rate of harvesting has been substantially lower than in the Peninsula, keeping at around the estimated optimum level. Even so, Sabah has logged more than half of her area of productive forest earmarked for commercial exploitation. At the harvest rate of 120 000 hectares per year, it is estimated that her resources of popular species will not be obtainable in 24 years and other species in 31 years. In Sarawak, the harvesting rate is about half that of Sabah.

Contribution to the Internal and External Economy

In 1979, Malaysia produced a total of 25 355 000 cubic metres of saw logs and 5 700 000 cubic metres of sawn timber, from which

TABLE 2.7
Peninsular Malaysia: Total Area of Forest under Logging
(in million ha.)

<i>Period</i>	<i>Area</i>
Up to 1970 ¹	2.88
Between 1971-76 ²	2.20
Between 1977-79 ³	1.11
Total	6.19

Sources: ¹ Selvadurai, 1978: 11.

² *New Straits Times*, 30 March, 1977.

³ Interpolated based on the present rate of logging of about 368 800 per hectare annually (see Gigot, 1979).

it earned \$2,854 million, forming 13.5 per cent of the value of all exports. But the 1980s and 1990s production of saw logs will decline progressively. As the conservative policy of the government gains support from the respective timber producing states, and with the fast depletion of many valuable commercial timbers, saw log production will decline further. According to various speculations, by 1990, the Peninsula will be a net importer of logs and this trend will not be reversed in the near future due to the slow progress of re-forestation.

Forest management. Reafforestation in the Peninsula started in the late 1950s. On the average about 10 800 hectares of the harvested forest are being reafforested every year. Sabah started in 1976 with an average of 1 200 hectares a year. Up to 1978 only 219 600 hectares of the forest land came under reafforestation (Malaysia, 1979b and *New Straits Times*, 30 March 1977). This is too little compared to the rate at which it has been harvested. The reafforestation programme is impeded by scarcity of trained personnel and by lack of adequate supervision during replanting.

Wastage during logging has been very high, as high as 50 per cent, accounting for 3.4 million cubic tons of waste in 1973 (*New Straits Times*, 25 September 1979). This is because the damage to the sapling and smaller trees has been large under current felling practice. Furthermore, very few loggers use techniques of directional felling (Gigot, 1979). The recovery of wood from commercial trees has not been high due to lack of modern technology of recovery and poor transport facilities to the processing centres.

Further Development and Discovery

Rigorous reafforestation is likely to be more common in the 1980s. In the 1960s and 1970s, although slow, increasing areas of forest land were replanted by the Forestry Department with fast growing softwood varieties, which will mature and be ready for harvesting in 25-year cycles. Reafforestation has spread to a limited number of private operators and this will probably expand further as the supply of tropical hardwood becomes critically low. It is possible that the maturity periods of such plantations may be reduced to 10- or 20-year cycles (see Gigot, 1979: 63).

Utilization of the less popular species. With the limited supply of popular timber species a major shift in utilization to the less popular species will become necessary. Extensive research on the basic properties, such as the anatomical structure, strength, drying and pres-

ervation characteristics is being carried out for the other available species. The Government is encouraging the commercial use of lesser known species. In addition, research on rubber wood has proved it to be suitable for furniture making and has also indicated that it can be used to manufacture pulp and paper.

Problems of environmental damage. Ecological damage resulting from timber extraction is varied and severe, and has given rise to much concern. The results of deforestation include changes in microclimate, soil erosion, loss of soil fertility, flooding, siltation of rivers and river pollution.

Another environmental hazard is the possible extinction of important Malaysian flora and fauna, particularly certain species of trees which are in great demand. Reafforestation, where it is being carried out, uses fast growing softwood, and no one is replanting dipterocarp woods like meranti. Research has not yet produced hardwood species which can grow fast enough to compete commercially. It takes 90 years to replace one of these species (see Gigot, 1979: 63).

In addition, 15 species of Malaysian wildlife are in the process of extinction due to the continuing deforestation. There were only 43 rhinoceros, some 500 tigers, 600 elephants and 350 seladang (wild buffalo) known to exist towards the end of the 1970s (*Star*, 6 January 1978). Others, like the Malayan tapir, the flying lemur and some carnivores are near extinction.

TIN

Tin Resources and their Geographical Distribution

All tin fields up to the late 1970s were in or offshore from Peninsular Malaysia, where they are quite widely distributed. Practically all Peninsular states have some tin deposits. But the most productive have been located in the West belt (Map 2.1). They can be conveniently grouped into several areas. The Kinta Valley areas have been the most extensively mined so far. About 45 per cent of the country's tin production comes from this area.

The second most important resource has been in the Selangor-Negeri Sembilan area, where they are found in Kerling, Bentong, Manchis, Kuala Lumpur, Ulu Langat, Dengkil, Seremban, and Jelebu. The Dengkil tin fields are said to have the largest reserves in this area. This region, together with the Kinta Valley area, contributes more than 80 per cent of Malaysian tin production.

Another area in this belt is North from Taiping to Kaki Bukit, but here the occurrences are less extensive, and scattered over wide

areas. There are also the Eastern tin belts, which are divided into two main areas, namely, the Kuantan-Kemaman areas and the South-East Johore areas. There are also numerous minor tin fields, scattered at many points over the Peninsula, but these have not been important producers.

Security restrictions. Certain parts of Kedah, Pahang, Kelantan, and Perak have been areas of military operations. For security reasons, the public has been prohibited from going into these areas for any purpose at all. For this reason prospecting, exploration, and investigation work could not be carried out in these areas in the 1970s, and this is likely to continue in the 1980s until the security situation improves.

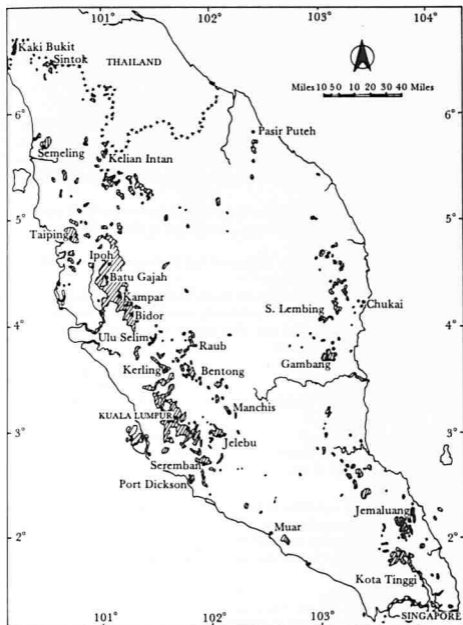
Resource Development and Discovery Potential

The general state of the tin mining industry is discussed in Chapter 10. Here only the special geographical features will be covered.

Malaysia has hard-rock reserves of tin metal, and commercial tin deposits are known to exist in the offshore areas. Up to the end of the 1970s, little work was carried out to assess the magnitude of the offshore tin, but studies by the Department of Geological Survey suggest that the best prospects are in the Lumut, Sungai Linggi, Pulau Besar, Gunong Jerai and Kuantan areas. Recently, commercial tin deposits have been found off the coast of Negri Sembilan.

Other studies indicate that primary tin mineralization may occur in granite/sediment contacts, especially around intrusive salients and re-entrants, zones of intensive fracturing, areas of quartz, aplite, pegmatite, and quart-tourmaline veining, as well as greisenized areas. According to the Geological Survey Department, prospects are good for finding lode tin, and some of the best prospect areas are: Ulu Selangor/Bentong; the zone stretching from Sungai Lembing to Bukit Besi (which include Bukit Paloh, Bundi, Chendrong, Buleh, Nipis, Sungai Ayan-Lentor); the Kinta Valley (i.e. Kledang Range and Bujang Melaka); the Kuala Kelawang area; Maxwell Hill (Taiping area); Gunong Muntahak (Johore); and the Tanjong Malim area, all in Peninsular Malaysia.

Problems of environmental damage. Mining causes environmental and physical deterioration through soil erosion, siltation and pollution of rivers, flooding, and loss of soil fertility. Land alienated for mining is difficult and expensive to rehabilitate. For this reason, old mining land has limited uses and cannot be readily converted back to agriculture or forestry. For these reasons, the Forestry Department is reluctant to release extensive valuable forest land for mining.



Map. 2.1: Distribution of Tin Deposits in Peninsular Malaysia

With the emergence of the environment conservation movement in the country during the 1970s, there is a growing concern about the damage caused by mining operations. Complaints have already been voiced about the effects of the discharge of untreated mining effluents into rivers. Those considerations are increasingly placing

restraint on new mining operations, and the development of the tin industry is becoming dependent, amongst other things, upon the solution of these problems.

PETROLEUM

Oil Resources and their Geographical Distribution

The petroleum industry is discussed in detail in Chapter 10. It has two parts, crude oil and natural gas. Here, remarks will be confined to a brief discussion of the geographical distribution of the resource, and some of the implications that follow from this pattern.

At the end of the 1970s, Malaysia had known crude oil reserves of about 900 million barrels, distributed in the offshore areas of three states (Map 2.2).

Table 2.8 shows that Trengganu had the largest reserves, followed by Sabah and Sarawak.

Malaysia's total reserves are, in fact, very small by world standards. Of more than 70 oil producing countries, Malaysia is number 30 in terms of the total size of its known reserves. Reserves of some countries were as follows:

Malaysia	0.9 billion barrels
Norway	6.0 billion barrels
United Kingdom	9.0 billion barrels
Indonesia	12.0 billion barrels
Venezuela	18.0 billion barrels
United States	32.0 billion barrels
Saudi Arabia	107.0 billion barrels

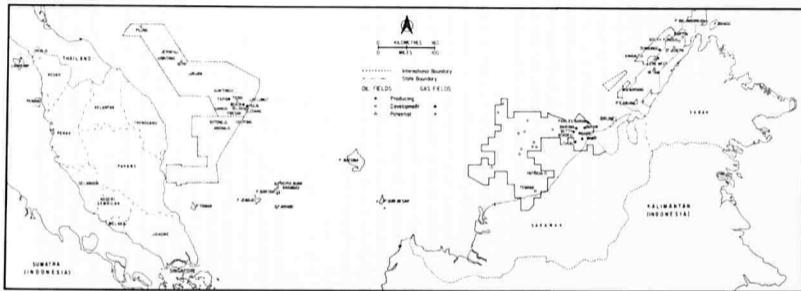
Development and Discoveries

There are prospects of further oil discoveries off Trengganu, where prospecting and drilling began only in the late 1970s, but prospects in the Sabah and Sarawak areas are less because the in-

TABLE 2.8
Known Total Crude Oil Reserves by State

<i>States</i>	<i>Reserves (in million barrels)</i>	<i>Per Cent of Total Reserves</i>
Trengganu	490	55
Sabah	210	23
Sarawak	200	22
Total	900	100

Source: Petronas, 1977: 2.



Map. 2.2: Distribution of Oil and Gas Fields in Malaysia, 1979

dustry has been operating there since the last century. Further on-shore drilling has been attempted in Sabah and Sarawak, but without success.

As shown in Map 2.2, there are several areas presently under development, which are thought to have prospects for new discoveries. It is thus possible that the oil reserves in the Trengganu region may be larger and that they will last longer than suggested by the figures available at the end of 1970s. This, however, is dependent on new discoveries, and possibly also on agreement with neighbouring countries for further extension of exploration.

Natural Gas

As with oil, natural gas is also found in the offshore areas of Trengganu, Sabah, and Sarawak (Map 2.2). At the end of the 1970s, Sarawak had the largest known total reserves but the areas off the East Coast of Peninsular Malaysia have not yet been fully explored and very large reserves may exist there also.

The geographical significance of the location of these large reserves of gas is considerable, as their effective exploitation requires heavy capital investment, either in processing for export, or in large-scale electricity generation, or in reticulation through gas mains to industrial and domestic users. This in turn will have some influence on business and investment decisions regarding the location of new industries, and may well provide a stimulus for industrial development in the relatively less developed states of Sarawak and Trengganu during the 1980s and 1990s.

CONCLUSION

In the last two decades of the twentieth century, Malaysia will face a serious decline in the supply of forest products and crude oil. As the total reserves of crude oil are relatively small, the rates of exploitation projected in the late 1970s will exhaust the oil by the middle of late 1990s unless substantial new reserves are discovered. What is more, before the end of the 1980s, Malaysia will probably lose its foreign exchange surplus from the export of oil, because while production will fall, consumption of oil products in Malaysia appears likely to continue to rise. Foreign exchange earnings from gas export, however, will rise. During this period, the centre of gravity of Malaysia's oil wealth will tend to move back from Sabah and Sarawak to Peninsular Malaysia. Moreover, if the Malaysian Government takes the wise course of encouraging the early substitution of gas for oil in at least some major energy fields, and development of the large East Coast reserves proceeds fairly quickly, the centre

of gravity of gas production will also be less concentrated on Sarawak.

Exploitation of the forest resource appears likely to be reduced to a low level of constant regeneration in Peninsular Malaysia in the 1980s, but higher rates of extraction will last considerably longer in Sabah and Sarawak. The centre of gravity of the logging industry will therefore continue to be in Sabah and Sarawak in the 1990s. The timber processing sector of the industry, which at the end of the 1970s was fairly heavily concentrated in Peninsular Malaysia, may however be expected gradually to increase in Sabah and Sarawak, especially as development construction and rising incomes increase the local demand for timber there. There is perhaps some reason to expect that timber processing could expand quite rapidly once a certain critical scale of production is reached that would make direct exports of sawn timber from Sabah and Sarawak more economical than reshipment through Singapore or Peninsular ports.

The tin industry seems likely to remain mainly centred in the Peninsula, particularly during the 1980s, but fisheries in the Peninsula appear to be approaching a point where further expansion of marine fishing will be checked by the limitations of the available resource, particularly on the West Coast. Expansion in Sabah and Sarawak does however seem quite possible on a fairly substantial scale, though knowledge of the size and characteristics of the resource is limited. In the longer run, greater dependence on inland fisheries and aquaculture, in which the West Coast of Peninsular Malaysia has some important natural advantages, seems likely.

Even despite the rapid extensive development of agriculture in Peninsular Malaysia, particularly through new land development schemes, the Peninsula is not yet running short of land for cultivation. The new areas remaining, however, are gradually becoming more difficult and expensive to develop, and this trend must be expected to continue in the 1980s. Ample land remains to be developed in the states of Sabah and Sarawak, and new land settlement of East Malaysians on those lands can proceed without foreseeable limit, provided settlers are forthcoming and finance is available. However, the introduction of settlers from Peninsular Malaysia in Sabah or Sarawak does not appear to be politically, socially or economically feasible on a large scale in the 1980s, nor does it appear to be necessary.

3 The Physical Infrastructure

It has long been recognized that economic development is intimately related to the growth of an efficient system of infrastructure. What is not certain is the nature of the relationship. Some writers, for example, hold the view that an efficient system of transportation is of fundamental importance to the development of an economy (Hoyle, 1973; Lienbach, 1971), while others have tended to view it with some degree of scepticism, and in some cases physical infrastructure is regarded merely as a means of linking satellites to the metropolis, possibly to the eventual detriment of the former (Missen and Logan, 1977). In themselves, the components that make up the infrastructure are technical facilities which are basically neutral in nature; whether their effects are generative of development or under-development depends on the goals of the society and the strategies adopted towards achieving those goals. It is not intended here to evaluate the welfare aspects of infrastructure; this chapter is merely an attempt to describe the existing stock of infrastructure in Malaysia.

As a whole, the system of infrastructure in Malaysia is well developed, considering its status as a developing country. In a worldwide comparative study in the late 1950s, Peninsular Malaysia was placed in the second quintile on the technological scale based on eleven infrastructural indicators (Berry, 1960). The transportation system in particular has been rated as the next most advanced in South-East Asia after Singapore (ADB, 1972).

Although Sabah and Sarawak are still relatively underdeveloped, progress in the construction of roads has been quite impressive, with road mileage having more than doubled between 1966 and 1977.

Throughout the evolution of the country's infrastructure, the distribution of transport networks and basic amenities has been urban-biased, with major road networks, health services, schools and public utilities being heavily concentrated in and around the urban centres of the more developed states, leaving many peripheral

areas under-served. Much of the development that had taken place before independence was geared towards serving the colonial mercantile economy, which was based on the export of tin and rubber. The colonial policy towards infrastructure was mainly decided in terms of the most efficient and profitable means of transportation for the conveyance of export products and colonial administration (Lienbach, 1971). For this reason, and given the fact that the West Coast of Peninsular Malaysia is better endowed with tin deposits and with fertile soils for planting rubber than other parts of Malaysia, investment in infrastructure was concentrated in this region. Historical inertia, the pattern of population distribution, and orographic obstacles have maintained this inequality inherited at the time of independence, into the beginning of the 1980s.

During the first two Malaysian Development Plans (1955-65), some provision was made to provide amenities in the rural areas and to build feeder roads linking the outlying areas to the existing networks. A further 33.7 per cent of public development expenditure was devoted to transport, communications and utilities in the First Malaysia Plan (1966-70), and part of this was allocated for

TABLE 3.1
Percentage Distribution of Population, Paved Road Mileage,
Registered Vehicles, Doctors and Telephone
Receivers by State, 1978

<i>State</i>	<i>Population</i>	<i>Registered Vehicles</i>	<i>Doctors</i>	<i>Telephone Receivers</i>
Johore	12.3	13.3	8.9	7.2
Kedah	8.9	6.7	4.6	3.1
Kelantan	6.3	3.6	3.1	1.8
Malacca	3.8	3.9	3.4	2.6
Negri Sembilan	4.6	5.4	4.4	3.0
Pahang	5.3	5.4	4.1	3.1
Penang	7.1	10.0	10.0	11.1
Perak	14.4	14.2	11.9	9.6
Perlis	1.1	1.0	1.4	0.5
Selangor	16.1	25.5	37.5	41.5
Trengganu	3.9	1.9	2.0	1.3
Sabah	7.1	3.8	3.5	6.5
Sarawak	9.1	5.1	5.3	9.2
Total (100%)	12,998,487	2,008,553	3,058	507,792

Sources: Malaysia, 1976a; Sabah, 1978; Sarawak, 1978; Malaysia, 1979d; Malaysia, 1979a.

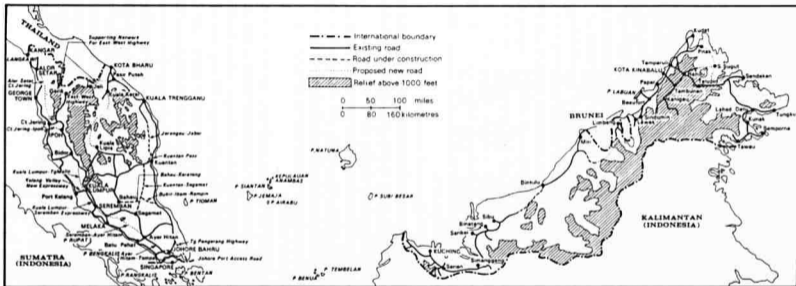
building rural roads and roads that link the relatively backward regions directly to the main commercial centres of the country. Road construction to isolated areas was continued through the Third Malaysia Plan (1976-80), although an increasing proportion of the budget was allocated for improvements and maintenance of existing routes. Table 3.1 shows the distribution of selected amenities for all states in 1978. Compared to the pattern before independence, this table indicates that some progress had been made towards redressing the imbalance between the less developed states of Sabah, Sarawak, Kelantan, Trengganu and Pahang, and those of the more developed West Coast States of Peninsular Malaysia (see Lim, 1971).

THE ROAD SYSTEM

The road system of Peninsular Malaysia, consisting largely of paved primary and feeder roads, connects all towns in the Peninsula. In Sabah and Sarawak, some parts were still not connected by the end of the 1970s, although plans were under way for these areas also (see Map 3.1). By 1977, the total mileage of roads in the country was 20,313 miles. This comprised 12,664 miles of paved roads, 5,742 miles of gravel roads and 1,907 miles of earth roads (Table 3.2). In total mileage of paved roads, percentage of paved roads to total length, as well as in road mileage per capita and per vehicle, Malaysia ranks first among the ASEAN countries (ADB, 1972: 87).

The distribution of roads per thousand square miles in each state of Malaysia (Table 3.2) shows marked differences between the relatively developed and the relatively backward states, the highest mileage being in Penang, while the lowest is in Sarawak.

As mentioned earlier, apart from the influence of colonial policies, the pattern of distribution of roads has also been shaped by the physical features of the country, the most important of which are the mountainous terrain of the interior and swamplands of the coast (see Map 3.1). The feasibility study for the East-West Highway, for example, estimated that it would cost \$2.25 million per mile to build medium traffic roads in mountainous areas as compared to \$0.88 million in the flat areas (Ministry of Works and Utilities, 1978). The construction of the East-West Highway was considerably slowed down by security problems as well as the steep terrain, which required extensive cutting; the major stretch of the route being more than 3,000 feet above sea-level. In the same way, the efforts to straighten the previously winding route between Karak and Kuala Lumpur necessitated the construction of an expensive three-quarter-mile tunnel at Genting Sempah.



Map 3.1: Distribution of Roads in Malaysia, 1979

TABLE 3.2
Distribution of Roads by Surface Type, 1977 (Miles)

<i>State</i>	<i>Paved</i>	<i>Gravel</i>	<i>Earth</i>	<i>Total</i>	<i>Paved Roads per Thousand Square Miles</i>
Johore	1,705	179	76	1,960	232
Kedah	1,000	458	15	1,273	272
Kelantan	461	46	149	666	80
Malacca	542	4	—	546	846
Negri Sembilan	884	135	13	1,032	244
Pahang	1,302	444	197	1,943	93
Penang	639	—	34	673	1,646
Perak	1,800	63	46	1,909	225
Perlis	171	43	—	214	541
Selangor	1,787	286	—	2,073	564
Trengganu	703	49	117	869	139
Sabah	1,251	3,228	1,113	5,592	43
Sarawak	419	997	147	1,563	8
Total	12,664	5,742	1,907	20,313	

Source: Malaysia, 1979d; Sabah, 1978.

Generally, the roads in Peninsular Malaysia are in good condition, although there exist isolated stretches spotted with potholes, while a few others are impassable during the flood seasons. A significant proportion of the expenditure under the Third Malaysia Plan was devoted to maintenance, upgrading and straightening of existing roads. This included provision for realignment of sharp turns, as in the case of the well-known 'death track' between Rawang and Kuala Lumpur.

The total number of vehicles registered in all states exceeded 2 million in 1978, with 63 per cent concentrated in the states of Selangor, Perak, Penang and Johore. Selangor, which has 26 per cent of the total registered vehicles, has only 12 per cent of the total road mileage. The 1978 average daily traffic (ADT) was monitored at 76 stations in the Peninsula; the overall average was 5,804, with the highest count being 43,922 vehicles per day between Kuala Lumpur and Kelang. The average growth rate of traffic flow for the Peninsula between 1973-8 was about 12 per cent per annum, with traffic on the immediate major arteries radiating from Kuala Lumpur growing fastest at about 30 per cent. In Sarawak the average flow monitored at 15 stations was 2,748 vehicles per day, while in Sabah the average (for 1976) monitored at 10 stations was 1,989 vehicles per day. Both states show more or less similar patterns of

high traffic density emanating from the major urban centres of Kuching and Kota Kinabalu.

Between 1967-78 the number of registered vehicles in Peninsular Malaysia grew at an average rate of 12.2 per cent per annum, compared to 10.7 per cent for Sabah and 13.7 per cent for Sarawak. Over the period 1966 to 1977 the mileage of new road constructed has grown more slowly at an average of 2.7 per cent in Peninsular Malaysia, 5.1 per cent in Sabah and 7.7 per cent in Sarawak. The fact that the growth in number and flow of vehicles has largely been well accommodated in the existing networks is evidence that adequate excess capacity was available on most routes, especially in rural areas. According to Myint, countries in South-East Asia had followed the world-wide propensity to over-invest in some types of transport infrastructure, and generally the physical capacity of the existing transport networks is adequate to handle short term projected traffic flows (Myint, 1972: 80). For the region as a whole Myint recommended the construction of more feeder roads, rather than superhighways. However, while this may have been appropriate for many parts of South-East Asia in the late 1960s, it was not for the major urban centres of Malaysia at the end of the 1970s.

In Kuala Lumpur, for example, three major transport studies have highlighted the severity of the traffic congestion problem. Other studies have shown that pollution in some sections of Kuala Lumpur has reached a state comparable to some of the worst affected areas in other parts of the world (Zaidan, 1979; Sham, 1979). In 1970, there were already 200 vehicles for every one of the 192 kilometres of roads in Kuala Lumpur and by the year 1990, even to maintain this ratio, the city would have to construct an additional 960 kilometres (Seah Chee Meow, 1977: 509). Construction work has always been subject to delays due to problems of land and property acquisition, relocation of squatters and services, accommodation and contingency works, and the constriction of space for construction due to the need to keep the traffic moving.

Some parts of the newly built highways leading to Kuala Lumpur were utilized to full capacity within two or three years of opening; the Kuala Lumpur-Kelang Highway, for example, recorded an average daily traffic of 43,922 vehicles in 1978. As the transport system was estimated to contribute 92 per cent of the total pollutants emitted in the Kuala Lumpur-Petaling Jaya area in 1975 (a situation comparable to Los Angeles), further additions to the traffic volume may pose health hazards (Sham, 1979: 49). As Malaysia enters the 1980s, traffic strategy in Kuala Lumpur aims to encourage more use of public transport while restraining unecono-

mic use of private vehicles through fiscal and regulatory policies, and at the same time to divert through traffic from the town centre by providing by-pass routes and dispersal schemes.

Apart from projects to mitigate the traffic bottlenecks in the urban areas, efforts have been made in the 1970s to upgrade existing main trunk roads. This will continue into the 1980s with work on broadening and straightening Routes I, II and III of the Federal Highway. A total of \$79.5 million was allocated in the Third Malaysia Plan for the improvement of Route I while another \$24 million was allocated for the straightening and upgrading of the Kuala Lumpur-Karak roads. The construction of the East-West Highway linking Kota Bharu directly to Grik was scheduled to be completed by the end of 1980 but has been considerably delayed. Another highway linking Kuantan to Segamat (by-passing Kuala Lumpur) is also scheduled to be completed by 1981. With the completion of the above routes, the East Coast States, hitherto relatively isolated, will be directly linked to western and southern regions of the Peninsula.

In Sarawak, about 91 per cent of the main highway linking the major towns had been completed by the end of the 1970s, and the remaining 48 miles between Bintulu and Sibiu were under construction. In Sabah, major projects had been started to link the inland areas of Ranau, Telupid and Sandakan to Kota Kinabalu; work will continue in the 1980s to upgrade and rebuild the West Coast roads from Papar to Sindumin, across the Crocker Range from Tamparuli to Ranau, and the East Coast roads from Semporna to Lahad Datu. Road building in Sabah and Sarawak is made particularly difficult in many places by the number of rivers that have to be crossed.

It is expected that by the year 2000, almost all parts of Peninsular Malaysia will be less than eight hours from Kuala Lumpur by road (Lienbach, 1971: 204). With major networks completed by the end of the 1980s, development efforts will largely be on the maintenance and upgrading of existing roads and on the construction of more feeder roads.

Looking at the overall strategy in road building, it can be said that very little attention has been given to the informal modes of transport, such as trishaw, bicycle and the pedestrian. These forms of transport, undoubtedly very important in the 1950s, are still significant for short distance travel, especially among the poorer people. Although some provision has been made to build side paths for cyclists and pedestrians in the major towns, by and large, the road system has mainly been designed for motorists. In view of the problems of traffic congestion, air pollution and increased fuel costs, it is perhaps desirable for planners to observe the trend in

other areas (for example Holland), where cycling is well regarded as an alternative mode of short distance travel (see Rimmer, 1978). Also—and this will become an increasingly urgent issue in the 1980s and 1990s—stronger efforts will be necessary to provide effective alternatives to the gasoline-powered private car as the dominant means of personal transportation.¹

THE RAILWAY SYSTEM

The main railway line in Malaysia, runs north from Singapore and then separates into East and West Coast lines; these lines connect with the State Railway of Thailand at Padang Besar on the West, and Golok on the East. The total length of line, including feeder branches linking Prai, Port Weld, Port Dickson, Port Kelang, Telok Anson and Tumpat, is 1,035 miles, with 1,065 bridges. Since its completion in 1931, the rail network in the Peninsula has been essentially unchanged. The condition of the narrow gauge track and bridges is generally good, although there are stretches where heavier rails should replace the 60-pound rail to allow safer and smoother running at high speeds. A programme for bridge restoration is planned for the 1980s, following recommendations from a recent survey of 851 bridges.

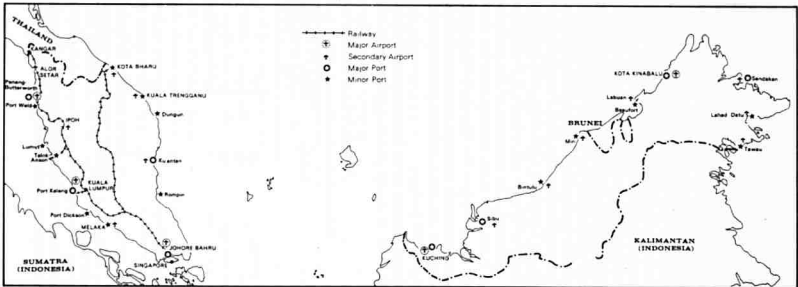
The Malayan Railway steam locomotives, of which there were 90 in 1970, were gradually phased out during the 1970s and by

TABLE 3.3
Malayan Railway Locomotives, 1978

<i>Type</i>	<i>Number</i>	<i>Weight (tons)</i>	<i>Tractive Effort (thousand lbs)</i>
<i>Mainline:</i>			
Electric 20 Class	26	93	54.0
20 Class	39	84	58.3
Hydraulic 20 Class	25	52	34.9
Railcar 27 & 28 Class	8	33/34	360/400 H.P.
<i>Shunting:</i>			
Electric 15 Class	20	44	33.0
Hydraulic 16 & 17	20	36	24.2
Electric 18 Class	2	44.7	34.2
Others	4	n.a.	n.a.
Total	144		

Source: Malaysia, 1979d.

¹ The author is grateful to an anonymous reader for drawing attention to the importance of this point.



Map 3.2: Distribution of Railways, Ports and Airports, Malaysia, 1979

1980 had been completely replaced by diesel. At the beginning of the 1980s, there were 144 locomotives in operation of which 98 were operating on the mainline, while the remaining 46 were on shunting lines. The number of freight wagons had been reduced from 5,924 in 1969 to 4,063 in 1978, but with the introduction of new models, the total carrying capacity increased from 109,210 tons to 118,040 tons.

The railway traffic flow (see Table 3.4) reflects closely the pattern of economic activities, with the Western line carrying the greatest volume, and the East Coast line operating on a level insufficient to cover running costs. Increasing competition from other modes of transport has slowly reduced the importance of the Malayan Railway since the 1930s. In 1961, the railway carried about 40

TABLE 3.4
Average Daily Train Density on the Malayan Railway,
1977-1978

<i>Route</i>	<i>Number of Trains</i>	<i>Number of Units</i>	<i>Tonnage in Goods Trains</i>
Padang Besar-Butterworth	6	218	558
Butterworth-Prai	8	288	-
Prai-Sungei Siput	16	598	2,232
Sungei Siput-Ipoh	32	1,218	6,695
Ipoh-Sungkai	26	986	5,021
Sungkai-Serendah	22	830	3,906
Serendah-Kuala Lumpur	24	908	4,464
Kuala Lumpur-Salak South	32	1,154	6,137
Salak South-Seremban	26	922	4,464
Seremban-Gemas	18	612	2,232
Gemas-Johore Bahru	22	766	3,348
Johore Bahru-Singapore	26	922	4,464
Tumpat-Pasir Mas	17	404	837
Pasir Mas-Krai	11	332	837
Krai-Gua Musang	12	400	1,116
Gua Musang-Kuala Lipis	14	478	1,674
Kuala Lipis-Mentakab	16	454	2,232
Mentakab-Gemas	10	376	2,232
Kuala Lumpur-Sungei Way	14	424	2,790
Sungei Way-C.C.M. Sliding	10	268	1,674
C.C.M. Sliding-Port Kelang	12	346	2,232
Kuala Lumpur-Sentul	6	102	558
Sentul-Batu Caves	2	78	558
Tapah Road-Teluk Anson Wharf	8	130	558
Seremban-Port Dickson	10	338	2,790
Pasir Mas-Rantau Panjang	6	72	-
Pudu-Ampang	8	310	2,232

Source: Malaysia, 1979d.

per cent of the total goods traffic in the country and this had decreased to 18 per cent by 1973. At the end of the 1970s, the total number of passengers carried by railway was stagnant at about the number (6 million) carried in 1964 (Table 3.5). The stagnation in passenger traffic and reduction in freight traffic resulted in a net operating loss of about \$45 million between 1971-5, although with some changes in management, the Malayan Railway managed to maintain an average profit of \$7 million between 1976-8. In a study by Nathan Associates Inc. in 1968, some recommendations were made for improvements needed not only on the physical plant and rolling stock, but also in management, marketing and service. These problems continued to plague the Malayan Railway to the end of the 1970s. Between 1976-9, there were more than a hundred derailments per year, mainly due to old coaches and worn sleepers. The fact that the rail route runs only on a single track means that any derailment causes delay not only to trains moving in the direction involved but also to trains from the opposite direction. There is an urgent need for double tracks, especially for the route between Kuala Lumpur and Seremban; up to 30 trains pass through Seremban each day and any derailment causes delay to the whole chain of schedules. On the flood-prone areas of the East Coast, the route is at times rendered impassable during the flood season.

Of the \$200 million allocated for the Malayan Railway in the Third Malaysia Plan, \$51.5 million was reserved for rehabilitation and maintenance. Plans were also made for the installation of automatic ticketing in order to avoid oversale of tickets and to ensure proper allocation of seats. In addition, plans were under way to introduce closed TV circuit entertainment for first class passengers, while at the same time attempts were made to improve staff con-

TABLE 3.5
Malayan Railway Passengers, 1978

	<i>Class I</i>	<i>Class II</i>	<i>Class III</i>	<i>Total</i>
Passenger Cars	—	—	—	358
Seating Capacity (thousands)	552	5,592	16,220	22,364
Number of Passengers (thousands)	38	835	5,125	5,998
Passenger Miles (millions)	9.5	193.8	585.5	788.8
Passenger Revenue (million \$)	1.8	15.9	28.1	45.8

Source: Malaysia, 1979d.

duct. With these changes it is conceivable that the Malayan Railway will be able to maintain its profits and continue to function as an efficient alternative mode of public transport in the 1980s. The Malayan Railway may even be able to help solve the Kuala Lumpur traffic problem if the recent Kuttner-Collin Associates' proposal for a city rail loop from Petaling Jaya to Pudu is implemented.

The Sabah State Railway runs 96 miles from Kota Kinabalu to Beaufort and Tenom with an extension to Melalap. The Nathan Report in 1968 envisaged that, with the introduction of new highways, the Sabah State Railway would possibly be discontinued in the early 1970s. However, this did not take place and with the purchase of workshop machinery, engineering, telecommunications, signalling equipment and more passenger coaches in 1975, the Sabah State Railway may well continue to be a supplementary means of land transport for the 1980s.

MALAYSIAN PORTS

Malaysia has a number of good ports with adequate handling and storage facilities to cater for its export-based economy. The West Coast of Peninsular Malaysia is predominantly a low-lying plain with many swampy areas near the coast. There are few good natural harbour sites and most of the existing ports are located at the mouth of the mangrove-filled rivers which are not readily adaptable for the construction of modern ports. The east of the Peninsula has a broad shallow foreshore broken up by river estuaries studded with sand banks, thus making them unsuitable for deep sea port construction. The West Coast is well protected from the seasonal monsoon winds which cause problems on the exposed East Coast, and is geographically more readily accessible to international shipping. These factors in part explain the continuing pre-eminence of the West Coast ports of Penang and Port Kelang in the 1970s. This is likely to continue in the 1980s at least, although plans are being implemented to turn Kuantan into another major port, and Lumut is being developed as a naval base.

In Sarawak, the western coast is a low-lying plain with many slow-moving rivers, some of which are navigable by small coasters. The north-west coast of Sabah has a narrow coastal plain with rapid rivers and offers less suitable sites for ports than the east coast.

Of 55 designated ports in Malaysia, 25 are in the Peninsula, 17 in Sabah and 13 in Sarawak. In Peninsular Malaysia, all ports are under federal jurisdiction except for jetties approved by the district offices of individual states. The major ports of Port Kelang, Penang and Johore are controlled by statutory authorities; the smaller

ports of Port Weld, Port Dickson and Telok Anson are owned and operated by the Malayan Railways as its sea terminals; and there are also a number of privately owned wharves and jetties serving particular industries. In contrast, management of ports in Sabah and Sarawak is delegated to the Marine Department of the respective state government and several statutory bodies. The Sabah Ports Authority manages Kota Kinabalu and all ports except Labuan. In Sarawak, Kuching has its own port authority and all ports on the Rejang River are controlled by the Rejang Port Authority.

More than 85 per cent of Malaysia's total cargo passes through Peninsular Malaysian ports, with Port Kelang and Penang handling over 25 per cent and 19 per cent respectively. The ports of Sabah and Sarawak altogether handle less than 15 per cent of the total, the bulk of this being timber exports (Table 3.6). With the advent of better roads and railways in Peninsular Malaysia, the prominence of cabotage and passenger shipping has been gradually reduced. Nevertheless, the development of the petroleum industry in the 1970s had made it necessary for the installation of port facilities for the haulage of fossil oil and natural gas in Bintulu, Kota Kinabalu, Labuan and Paka in Trengganu. Sea-borne passenger traffic in Sabah and Sarawak is still competitive due to the less efficient alternative forms of land transportation available. Table 3.7 shows the relative importance of the different modes of transportation to the three regions in Malaysia. Sea transport is more prominent in Sabah and Sarawak than in Peninsular Malaysia, where visitors arriving by land constitute more than half of the total volume.

Nearly all the entrepot and import-export trade of Malaysia is carried on by ships. With the steady growth in the economy and the

TABLE 3.6
Cargo Handled by Malaysian Ports, 1978
(thousand tons)

<i>Port</i>	<i>Loaded</i>	<i>Unloaded</i>	<i>Total</i>	<i>Percentage</i>
Port Kelang	2,801	3,068	5,869	22.4
Penang	2,010	2,921	4,931	18.8
Johore	887	559	1,446	5.5
Other Peninsular Ports	3,656	6,789	10,445	39.8
Kuching	93	604	697	2.7
Rejang River Ports	941	382	1,323	5.0
Sabah Ports	n.a.	n.a.	1,544*	5.9
Total			26,255	100.0

*Figure for 1976.

Source: Malaysia, 1979; Sabah, 1978.

TABLE 3.7
Visitor Statistics, Malaysia

	<i>Air</i>	<i>Sea</i>	<i>Road</i>	<i>Rail</i>	<i>Total</i>
Peninsular					
Malaysia (1978)	495,342	82,426	559,937	261,352	1,399,058
<i>Percentage</i>	35.4	5.9	40.0	18.7	100
Sabah (1976)	163,240	81,239	2,002	—	246,481
<i>Percentage</i>	66.2	33.0	0.1	—	100
Sarawak (1977)	43,222	30,615	38,388	—	118,225
<i>Percentage</i>	38.5	27.3	34.2	—	100

Source: Malaysia, n.d., c; Sabah, 1978; Sarawak, 1978.

consequent expansion in international trade, the number of ships arriving at and departing from Peninsular Malaysia ports increased from 10,772 in 1964 to 28,918 in 1978. A small part of the total cargo was carried by a fleet of 31 ships operated by the majority government-owned Malaysian International Shipping Corporation.

Also, since the beginning of 1980 the Government has introduced regulations aimed at restricting the carriage of domestic cargo to Malaysian registered ships. The continued increase in the volume of shipping has necessitated further expansion of berth and storage facilities at existing ports, and the building of new ports at Kuantan and Tawau; it has also caused traffic congestion both in the ports and *en route*. In 1975, an average of 150 ships passed through the Straits of Malacca each day, about one-fifth of which were oil tankers. In terms of volume of shipping, the Straits of Malacca is said to be the second busiest strait in the world after the Straits of Dover (Lee Yong Leng, 1978: 21). In the second half of the 1970s, there were six accidents involving oil tankers in the Malacca Straits. Oil spills caused by such accidents and by the discharges of ballast and bilge water from ships have caused considerable concern to the Malaysian Government, and in 1976 it approved a National Contingency Plan with programmes for immediate implementation to reduce the potential hazards posed by congestion in the Straits of Malacca.

Apart from the sea-borne transport, mention should also be made of the role of river transport in the more isolated areas of Malaysia. Some highly localized boat services are in operation on the rivers of Pahang, Kelantan and Trengganu (Cant, 1973). In some parts of Sabah and Sarawak, however, the lack of alternative transport leaves river transport as the only available means. The Rejang Port Authority, for example, has jurisdiction covering the ports of Sibul, Bina-tang, Sarikei, Tanjong Mani and extends 240 kilometres upstream to Kapit in the east; all these ports are located on the Rejang River.

AIR TRANSPORT

At the beginning of the 1980s, there were 18 airports in Malaysia, of which 9 were in Peninsular Malaysia, 5 in Sabah (including a military airbase in Labuan) and 4 in Sarawak. Penang, Subang, Senai, Kota Kinabalu and Kuching airports have facilities for international air traffic, while the rest cater for domestic flights, mainly operated by the government-owned Malaysian Airline System, which has a fleet of 38 aircraft of varying sizes. The importance of Subang as an international airport located close to the national capital is shown by the large number of passengers and amount of cargo handled (see Table 3.8). The volume of traffic passing through

TABLE 3.8
Air Traffic at Malaysian Airports, 1978

<i>Airport</i>	<i>Passengers (‘000)</i>	<i>%</i>	<i>Aircraft Landings and Takeoffs (‘000)</i>	<i>%</i>	<i>Cargo (‘000 kgs)</i>	<i>%</i>
Kuala Lumpur (Subang)	1,822	38.6	40.8	30.3	26,431	54
Penang	684	14.5	15.1	11.2	6,462	13.2
Ipoh	72	1.5	3.1	2.3	213	0.4
Kota Bharu	106	2.2	2.0	1.5	1,200	2.4
Malacca	12	0.2	1.9	1.4	184	0.3
Kuantan	14	0.3	0.8	0.5	47	0.1
Alor Star	20	0.4	1.6	1.2	57	0.1
Trengganu	38	0.8	2.0	1.5	38	0.1
Johore Bahru (Senai)	37	0.8	2.0	1.5	145	0.3
Peninsular Malaysia	2,085	59.3	69.1	51.4	34,777	71
Kota Kinabalu	445	9.4	15.3	11.4	4,213	8.6
Sandakan	245	5.2	10.1	7.4	1,055	2.2
Tawau	207	4.4	6.1	4.5	1,275	2.6
Labuan	89	1.9	3.0	2.2	342	0.7
Lahad Datu	65	1.4	3.5	2.6	204	0.4
Sabah	1,051	22.3	38.0	28.1	7,089	14.5
Kuching	391	8.3	8.0	5.9	4,584	9.4
Sibu	230	4.9	8.0	5.9	1,151	2.3
Miri	186	3.9	8.8	6.5	1,158	2.4
Bintulu	62	1.3	2.9	2.2	215	0.4
Sarawak	869	18.4	27.7	20.5	7,108	14.5
Total	4,725	100.0	134.8	100.0	49,974	100.0

Source: Malaysia, 1979d.

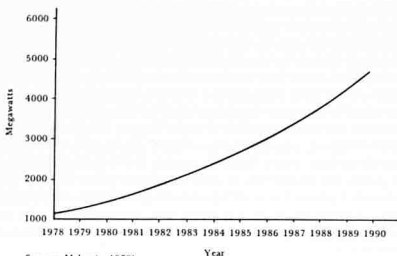
Subang grew more than six times between 1968-78 and in 1978, it handled 38.6 per cent of the total air passengers and 54 per cent of the total air cargo for the whole of Malaysia. Penang, which has a runway almost the size of Subang and with the capacity to accommodate DC10 and B747 aircraft, is the next busiest airport, followed by Kota Kinabalu and Kuching. In Sabah and Sarawak, air travel is the most important mode of transport for incoming visitors. The rates of growth in other airports are relatively small and in Malacca, passenger traffic actually decreased by 25 per cent during the same period. Since its opening in 1974, the Senai airport in Johore has shown only a slight increase in traffic and this presumably has been due to its location being overshadowed by Singapore. A feasibility study is however being undertaken to make the Senai airport an air cargo centre for Malaysia and the South-East Asia region.

PUBLIC UTILITIES

It has been estimated that the urban proportion of Malaysia's population will be 50.6 per cent by 1980 (McGee, 1979: 183). Malaysia will be the most urbanized country in South-East Asia after the city-state of Singapore, and the demand for public utilities such as electricity, water supply and sewage disposal is very high and increasing. The demand for electricity was estimated to be growing at more than 12 per cent per annum in the 1970s, compared to a population growth of about 3 per cent, which suggests that the increase in the demand for these facilities has been following almost an exponential pattern. According to a United Nations estimate, the per capita consumption of electricity in Malaysia has been the highest in the ASEAN countries next to Singapore (Courtenay, 1979: 147). Figures for water consumption show that the consumption of water in the Kelang Valley is about 20 per cent above the WHO recommended standard of 50 gallons per person per day. To meet this increasing demand for public utilities, the Government has undertaken various projects to increase production as well as to discourage profligate use of water and electricity.

The Supply of Electricity

In 1978, electricity consumption was 6,000 million kwh for Peninsular Malaysia and 301 million kwh for Sarawak, with an increase of about 12 per cent and 17 per cent respectively between 1977-8. The average consumption in Peninsular Malaysia was 545 kwh per person, which is more than twice the figure for Sarawak. There is also a marked difference between the West Coast States and the



Source: Malaysia, 1979b.

Figure 3.1: Estimated Demand for Electricity, Peninsular Malaysia, 1978-1990

East Coast States of the Peninsula. The central zone of Selangor consumed 1 237 kwh per capita, compared with 226 kwh per capita, for the eastern states of Pahang, Trengganu and Kelantan.

The industrial and commercial sectors are the largest consumers, taking about 79 per cent of the total in Peninsular Malaysia and 67 per cent in Sarawak, while the domestic sector consumed 14 per cent and 19 per cent respectively. Of the remainder, about 6 per cent was used in mining and 1 per cent by the armed forces. The total installed capacity for Peninsular Malaysia in 1979 was 1,685 MW, an increase of 19 per cent over the 1978 figure. It was anticipated that the capacity for 1980 would be further increased by 27 per cent to 2,137 MW. Demand for electric power is expected to increase substantially during the 1980s (Figure 3.1).

For Sarawak, the installed capacity of the Sarawak Electricity Supply Corporation (SESCO) for 1978 was 114 MW, while the estimated figure for 1980 was 135.7 MW, a growth of about 19 per cent in that year. In Sabah, the installed capacity of the Sabah Electricity Board was 127.9 MW in 1978 and it was anticipated that a further 99 MW capacity would be added by 1980. Part of the increase was intended for the rural electrification programmes which had become a major item of development policy of the 1970s. The number of rural consumers in Peninsular Malaysia nearly quadrupled in the 1970s, reaching more than 400,000 in 1979. Both Sabah and Sarawak have their own rural electrification programmes which presently serve a total of more than 10,000 families.

Table 3.9 shows the proportion of installed capacity contributed by various types of energy. Although hydro-electric generation provided only a quarter of the total supply, it had the highest growth rate of 33 per cent between 1977-8. This was due to the completion of Plant Number 2 of the Temenggor hydro project in Perak in August 1978. Projects are also under way for more generation of hydro-electric power from the Trengganu station at Kenyir (400 MW), Kenering (120 MW) and Bersia (72 MW) in Perak, in addition to the proposed thermal stations with a total generating capacity of 1 200 MW at Perai, Port Kelang and Pasir Gudang. With the increase in the price of fossil fuels, it is likely that hydro-electric power will become increasingly attractive. The equatorial climate of Malaysia with heavy rainfall and the mountainous relief provides considerable potential for hydro-electric power, but owing to seasonality in rainfall and the high capital outlay involved, the development of this source was overshadowed by the cheaper and more divisible fuel operated stations in the 1960s and 1970s. Plans for the construction of 'mini' hydro-stations have however been implemented in several projects to cater for rural demand, and these, together with new major hydro schemes, may be expected to play an increasing role in the 1980s and 1990s as petroleum fuels become increasingly scarce.

To meet long-term demands, proposals for the construction of a 600 MW nuclear reactor costing about \$1.2 billion was being considered at the beginning of the 1980s. At the same time, the National Electricity Board was planning for the construction of more gas-fired plants with fuel supplies from PETRONAS. In addition to these, the feasibility of using from Sabah and Sarawak gas and hydro sources to supply electricity to Peninsular Malaysia via undersea cable was also being studied. A certain amount of uncoordinated experimentation has also been undertaken by various departments

TABLE 3.9
Installed Capacity for Peninsular Malaysia,
1977-1978

<i>Sources</i>	<i>1977</i>	<i>1978</i>	<i>Per Cent</i>	<i>Per Cent Increase</i>
Thermal	970	970	67.4	Nil
Hydro	265.4	352.42	24.5	32.8
Diesel	81	97.42	6.8	20.3
Gas Turbine	—	20	1.4	—
Total	1,316.4	1,439.84*	100.0	

*Including rural electrification.

Source: Malaysia, 1979b.

to investigate the possibility of using solar energy for domestic purposes. A small number of solar units are already being marketed, although at this stage the units offered are still too expensive to be popular. If the cost per unit is reduced, it is likely that solar energy will become a popular supplementary source to the conventional supply.

Water Supply

The wet equatorial climate of Malaysia with heavy rainfall throughout the year provides adequate sources of water generally for domestic and industrial uses as well as agricultural needs. In 1978, 88.2 per cent of the urban population and 40.1 per cent of the rural population in Peninsular Malaysia were supplied with water from the tap; the remainder obtained their water from rivers, wells or rain water trapped from the roof. By 1990, it is expected that 97.1 per cent of the urban population and 83.2 per cent of the rural population in the Peninsula will be supplied with tap water. The bulk of the water is drawn from surface (river) and hill sources, while the rest, especially among coastal settlements in Kelantan, Trengganu, Perlis and Kedah are supplemented with underground water. Table 3.10 shows that the majority of the rural population in the less developed states of Kelantan, Trengganu, Kedah and

TABLE 3.10
Percentage of Total Rural and Urban Population
Served with Piped Water in Peninsular Malaysia, 1978

<i>State</i>	<i>Rural (%)</i>	<i>Urban (%)</i>	<i>Consumption (mgd)</i>	<i>Estimated Consumption (mgd), 1990</i>
Johore	25	100	42.5	134.0
Negeri Sembilan	60	85	19.4	45.0
Selangor	60	87	130.0	250.0
Perak	50	95	60.2	140.4
Kedah	25	86	19.8	100.0
Perlis	—	45	0.7	8.5
Pahang	45	90	15.3	60.0
Trengganu	20	70	4.4	28.2
Kelantan	8	48	4.0	24.3
Malacca	60	98	11.9	32.5
Penang	74	96	54.2	100.0
Peninsular Malaysia	40	88	362.4	922.9

Source: Water Supply Division, Public Works Department, Kuala Lumpur.

Perlis are still not covered by the reticulation system. As with other forms of infrastructure, the pattern of imbalance in the distribution of water has partly been due to the legacy of the past; in addition, the dispersed pattern of settlement in the rural areas means that installation costs in the laying of pipes are high and prohibitive for the low income rural dweller. In an effort to overcome this problem, the Federal Government has provided interest-free loans to Water Boards in the poor states in order to speed up its rural water supply programmes.

The total consumption of 362.4 million gallons per day in Peninsular Malaysia in 1978, supplied from 934,055 connections, was expected to increase to 922.9 million gallons per day by 1990. Figures for Sabah and Sarawak from the available sources have been either incomplete or inconsistent. It is however estimated that Sabah had a treatment capacity of 70 million gallons per day in 1979, serving 35 per cent of the total population, while Sarawak had a supply capacity of more than 50 million gallons per day serving about 30 per cent of the total population. As in Peninsular Malaysia, both states are rapidly implementing programmes for the extension of water supply into the rural areas.

Telecommunication Facilities

Malaysia has a well organized system of telecommunication networks, although these facilities are mainly concentrated in the major urban areas in the more developed states of Peninsular Malaysia. As shown in Table 3.11, the less developed states of Kelantan, Kedah and Perlis have the lowest number of telephone exchange lines per 1,000 population, while the states of Selangor, Penang and Perak are relatively better served. The latter states also have facilities for international subscribers dialling (ISD) to Hong Kong, Australia, United States, West Germany and the United Kingdom. In Sabah and Sarawak, telecommunication facilities are the most advanced of the infrastructural facilities available. A submarine cable newly installed links Peninsular Malaysia to Sabah and Sarawak through subscribers trunk dialling (STD).

For international communication, Malaysia has over 450 public telegraph offices and a telex capacity of about 4,000 exchanges operating through the Kuantan Standard A Satellite Earth Station and the domestic satellite stations in Kota Kinabalu and Kuantan. These stations also provide media for the transmission of TV channels for the whole of Malaysia, while another Standard A Satellite Station is being built in Malacca to increase the total transmission capacity for the 1980s. In the sphere of wireless communications, Malaysia has modern and expanding networks of television and

TABLE 3.11

Telephone, Telegraph and Telex Facilities, Malaysia, 1979

<i>State</i>	<i>Direct Telephone Exchange Lines</i>	<i>Number of Receivers</i>	<i>Public Telegraph Offices</i>	<i>Telex Exchange Capacity</i>
Perlis	1,596	2,147		
Kedah	11,095	15,627	44	50
Penang	35,986	56,253	29	530
Perak	35,027	48,727	73	150
Selangor	127,477	210,704	88	1,980
Negeri Sembilan	10,158	14,998	27	40
Malacca	7,991	12,849	21	60
Johore	25,580	36,518	58	300
Pahang	9,261	15,287	25	70
Trengganu	4,040	6,480	13	50
Kelantan	6,064	8,838	32	50
Sabah	19,602	32,950	26	380
Sarawak	31,277	46,414	50	320
Total	325,154	507,792	458	3,980

Source: Jabatan Telekom Malaysia, personal communication.

radio services, as well as radiophone services which are mainly used in the urban centres. In addition, the postal system comprising post offices, agencies and mobile units, covers the whole country, making communication by letter between any two points possible within two or three days.

Sewerage Facilities

At the end of the 1970s only three cities, namely Kuala Lumpur, George Town and Kota Kinabalu had central sewerage systems. In 1977, half a million people benefited from these facilities, half of whom were in Kuala Lumpur. Plans, however, were under way for the extension of these facilities to all the major towns of Malaysia during the 1980s. The sewerage programmes have so far been obstructed by the problems relating to land acquisition and the relocation of squatters.

Drainage and Irrigation

Extensive systems of drainage and irrigation have been constructed in the Peninsula, and are envisaged for some areas of Sabah and Sarawak. These form an important part of the agricultural infrastructure and are discussed in Chapter 10.

CONCLUSION

In the present chapter, the physical infrastructure in Malaysia has been described mainly in terms of aggregate stock and growth patterns. The existing state of infrastructural networks in the country provide adequate facilities for communication and for the movement of goods and people. Compared with other countries in the South-East Asian region, the facilities available in Malaysia are relatively superior, and this position has in part been due to the advantage of an earlier and better starting point inherited from the former colonial government. Although the development of infrastructure was rather lop-sided in favour of the well-endowed states of Peninsular Malaysia, the previous networks nevertheless laid a fairly efficient system on which subsequent extensions were added. The initial neglect of the poorer states has gradually been redressed and the same process is still taking place in Sabah and Sarawak.

As Malaysia becomes more urbanized and as the standard of living increases, the demand for basic amenities rises with expectations. Other factors, such as inflation of costs, are likely to delay the implementation of some projects and to lead to some disappointments. Delays have been caused by lack of expertise, poor co-ordination and planning, shortage of skilled manpower, inadequate project evaluation and supervision, as well as inadequate funds. Examples can be found in the completion of the East-West Highway, design deficiencies with the Kuantan Port and the Bayan Lepas Airport, and a huge backlog in the installation of telephones. Similar problems are also being faced in the maintenance and improvement of the existing facilities, although in some cases some disciplinary measures are needed in order to improve the quality of services, as has been exemplified by the problems faced in the management of the Malayan Railway.

Finally, while Malaysia may be able to provide its people with the most up-to-date facilities, it also needs commensurate improvement in the quality of its social infrastructure. Unless effective measures are taken to instil those who install and maintain the facilities with the spirit of professional ethic, there will always be bottlenecks in all services in the years to come.

4 The Demographic Situation

THE first census taken for Peninsular Malaysia was in 1911. Since then, the population has increased very rapidly to reach 14 million as Malaysia entered the 1980s. By 1980, the population of Malaysia as a whole had reached six times the number enumerated in the Peninsula in 1911, and almost twice that of the year of independence, 1957. At the beginning of the 1980s, the annual growth rate of population was between 2.3 and 2.5 per cent.

Malaysian planners expect that, with the increase in general income levels resulting from economic development, and a more effective family planning programme, the rate of population growth should decline to about 2 per cent per annum by 1985. If this expectation is fulfilled, and the rate remains constant, the Malaysian population would be expected to reach about 15.7 million by 1985, and about 21 million by the year 2000.

The pattern of this growth from 1911 to 1980 can be seen from Table 4.1.

Much of the early development in Peninsular Malaysia was concentrated in the western coastal belt. Between 1786 and 1914, British commercial and colonial interests in the Peninsula grew quite considerably. With the departure of the Dutch in 1824 and the establishment of the Straits Settlements, the British virtually controlled the trade of the Malay States. Then, with the opening up of tin resources and the introduction of rubber, British investment began to flow in, and this was followed by an influx of Chinese and Indian migrant labour.

In the hundred years from 1830 to 1931, the population of Peninsular Malaysia increased from an estimated 0.5 million to 3.79 million, which was rapid for an Eastern country at that time. There were two distinct components in this increase. First, there was considerable immigration, mostly of men of working age, who rapidly came to form a large proportion of the total population. There was also, at about the same time, an influx of male Chinese into Sabah and Sarawak. Secondly, there was the natural population in-

TABLE 4.1
 Malaysia: Population, 1911-1980
 (million)

Year	Peninsular Malaysia	Sabah	Sarawak	Total
1911	2.34	0.215	0.231 ¹	2.81
1921	2.91	0.263	0.294 ¹	3.47
1931	3.79	0.277	0.369 ¹	4.44
1947	4.91	0.322 ¹	0.546	5.78
1951	5.42 ¹	0.334 ¹	0.600 ¹	6.35
1957	6.28	0.410 ¹	0.692 ¹	7.38
1960	6.79 ¹	0.454	0.744	7.99
1970	9.15	0.654	0.976	10.78
1980	11.85 ¹	1.098 ¹	1.314 ¹	14.26

¹ Estimated.

Sources: Fell, 1957; Nathan, 1921; Malaysia, 1970; Malaysia, 1981.

crease, which was at no time particularly high (and at times very low especially in the latter part of the period) largely because the sex and age balance of the population had been upset by the immigration patterns.

The 1930s saw the introduction of a restricted immigration policy, by which the inflow of migrants was to some extent curtailed. The Aliens Act of 1933 allowed female Chinese immigrants to enter the country freely, whereas males were subject to quota. The flow of Indian migrant labour was also checked, in this case by a ban imposed by the Indian Government on the emigration of unskilled Indian workers. At about the same time, the world-wide economic depression caused a slump in the rubber and tin industries, and this stimulated an outflow of migrants returning to their homelands. As a result of these developments, the contribution of immigration to Malaysian population growth was much reduced. The sex ratio, however, became more balanced and natural increase began to play the major part in population expansion.

After World War II, some further significant changes began to affect the pattern of population growth. Of these, political changes in South and East Asia were particularly important. For example, the communist domination of Mainland China, together with the communist insurgency within Malaysia, provided many new impediments to travel between the two countries. The coming of independence and the growth of nationalism in many other neighbouring countries also imposed further legal constraints on migration in and out of Malaysia, thus drastically reducing immigration and also

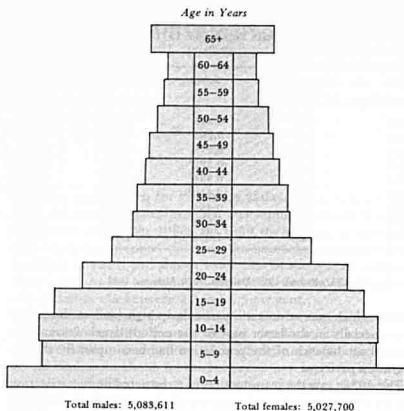


Figure 4.1: Total Population in Peninsular Malaysia, 1975

detering the return of migrants to their own countries. This accelerated the process of settlement of migrants as permanent residents, and virtually eliminated migration as a factor in population growth. Further, in the period 1947 to 1957, the crude birth rate increased from 43.0 to 46.2 per thousand, whilst the crude death rate fell from 19.4 to 12.4 per thousand. Also, the high birth rate, together with a tendency for infant mortality to decline faster than mortality at older ages, changed the age structure of the population to include an increasing proportion of young people.

Extreme youthfulness still characterized the age structure of the population in the 1970s. This fact is demonstrated by the following population pyramid (see Figure 4.1): in 1975, about 42 per cent of the population were in the age group 0-14 years and only 55 per cent were in the working age group of 15-64 years. This gave a high youth dependency ratio (ratio of those under 15 to those between 15 and 64) of 75.2 per cent. In the 1980s, it is expected that the ratio will fall, but it will still remain relatively high. This

means that there will be a continuing need for a higher level of public expenditure on health, education and various social services for youth, than might otherwise have been required (Nor Laily, Tan and Kuan, 1977).

Since World War II, the sex-ratios have been normalized to an approximate parity. This applied particularly to the younger age group. By the 1970s, the residual effects of the imbalanced migration of the 1930s were evident only in the oldest age groups. The remaining preponderance of males was only slight, and the 1976 ratio for the whole population was 990 females per thousand males; while the ratios were 1,007 per thousand females for Malays; 989 for Chinese and 912 for Indians. Thus, while tangible social and political effects undoubtedly stemmed from the heavy migration before World War II, by the 1970s these had ceased to be critical except for the important fact that the three main ethnic groups do have distinctly different fertility and mortality patterns (Palmore, Chander & Fernandez, 1975).

MORTALITY

Mortality continued to decline in Peninsular Malaysia during 1970-6, but at a less rapid pace than in the previous two decades, as mortality rates were already low. The crude death rate of 19.5 per thousand in 1947 had steadily been reduced to 7.3 in 1970 and subsequently to 6.2 in 1976. During the same period, the life expectancy at birth of both males and females had increased considerably. This reduction in mortality rates and extension of life expectancy is shown in Table 4.2. There are grounds for believing that the trends in Sabah and Sarawak have been similar, although the precise rates of decrease and the dates of the onset cannot be accurately ascertained (Palmore, Chander & Fernandez, 1975).

These improvements in mortality have correlated well with the socio-economic development of the country. To a large extent they reflect the improved health and medical conditions that had been achieved. The reduction in Malay mortality, for instance, was very much influenced by socio-economic factors. Improvements in sanitation, living conditions and the expansion of health services in the rural areas has benefited the Malay community. Indian mortality, on the other hand, was more due to demographic factors, namely, fertility which affects the reduction through the age-distribution. For the Chinese, the decline in mortality was more or less equally influenced by socio-economic and demographic factors.

Another index that appears to be highly correlated with the socio-economic conditions of the three racial communities is the infant

TABLE 4.2
Mortality Rates and Life Expectations
for Peninsular Malaysia, 1957-1976

<i>Year</i>	<i>Ethnic Group</i>	<i>Crude Death Rate</i>	<i>Life Expectancy at Birth for Males</i>	<i>Life Expectancy at Birth for Females</i>
1957	Malay	15.0	50.2	51.2
	Chinese	9.7	59.5	63.3
	Indians ¹	11.1	57.5	53.2
	TOTAL	12.4	55.8	55.9
1970	Malay	7.6	63.7	63.4
	Chinese	6.5	65.1	70.7
	Indians ¹	8.2	60.2	61.4
	TOTAL	7.3	63.5	65.8
1976	Malay	6.2	65.9	68.3
	Chinese	5.9	66.0	73.3
	Indians ¹	7.7	60.8	65.2
	TOTAL	6.2	65.0	69.9

¹Includes Pakistanis.

Sources: Palmore, Chander & Fernandez, 1975; Malaysia, 1976c.

mortality rate. Over the period 1947 to 1976 this rate had been declining, as seen in Table 4.3. Over the period 1970-6, the Malay infant mortality rate seemed to decrease slightly more rapidly than that of the other two major ethnic groups. However, the lowest infant death rate was recorded by the Chinese, followed by the Malays and Indians which had similar ratios. This is hardly surprising as the Chinese have the advantage over the other two groups in terms of income, literacy and urban residence.

Maternal mortality—the number of deaths due to puerperal causes per 1,000 total live-births and still-births—has also been declining. In 1971, the national index for Peninsular Malaysia was 1.24 and this figure was reduced to 0.78 by 1976. Here again, correlation between racial mortality rates and racial socio-economic status was evident. High maternal mortality rates were registered among the rural Malays, especially where trained midwives and other health services were deficient. Two states, Kelantan and Perlis, showed particular improvement in maternal mortality rates during the early 1970s, reducing their rates from 2.34 and 2.29 respectively in 1971 to 1.23 and 0.52 in 1976.

The effectiveness of Government health services, especially in the rural areas, has been a major contributing factor to the improvement in mortality rates. There is evidence to show that this has

TABLE 4.3
 Infant Mortality Rate by Ethnic Group and Sex
 for Peninsular Malaysia, 1947-1976

Year	IMR (per 1,000 live births)					
	Malay		Chinese		Indian	
	Male	Female	Male	Female	Male	Female
1947	138	121	75	66	109	90
1957	108	83	51	43	83	68
1970	54	41	32	25	51	41
1976	40	31	25	18	40	34

Source: Malaysia, 1976c.

been particularly important with the infant and maternal mortality rates. During the Second and Third Malaysia Plans, many new health centres and subcentres were established and considerable improvements were effected in rural health services and sanitation.

As for the major causes of death, hospital records for the 1960s and 1970s have indicated for Malaysia a shift towards a pattern more typical of a developed rather than a developing country. They show a predominance of accidents, increasing heart and mental disease, a steady decline in serious communicable diseases such as tuberculosis and malaria, and a reduction in other infectious and parasitic diseases (Nor Laily, Tan and Kuan, 1977).

To summarize, the three decades prior to 1976 saw a consistent reduction in Malaysian death rates, together with a considerable narrowing of variations in the rates from year to year, reflecting the economic and social development of the country. However, socio-economic inequalities still exist between races, and between locations—especially between rural and urban people. These continuing inequalities are reflected in the racial and locational differences in the mortality ratio at the end of the 1970s.

FERTILITY

If mortality decline is a precondition for a decrease in fertility rates then Peninsular Malaysia seems to conform to the rule (Cho, Palmore and Saunders, 1968). Over the twenty years from 1957, the fertility level in Malaysia showed a downward trend. For example, the crude birth rate fell from 45.4 per 1,000 in 1957 to 29.7 in 1977. The decline was steady and substantial, conforming to a near linear trend (Jones, 1980). Fertility rates also declined in Sabah and Sarawak, but over the years this decline was subject to consider-

TABLE 4.4
 Percentage Changes in Age-Sex Standardized Birth Rates by Race,
 Peninsular Malaysia, 1957-1977

<i>Race</i>	(1957-67) (%)	(1967-77) (%)	(1957-77) (%)
Malays	-16.3	-20.3	-33.3
Chinese	-30.8	-32.7	-53.4
Indians	-23.8	-42.6	-56.3

Source: Jones, 1980.

able fluctuation, due perhaps to deficiencies in the system of registration in these two states.

This reduction in fertility was found in all the three main ethnic groups, but not equally. Prior to 1957, the lowest fertility was recorded among the Malays, with Chinese and Indian fertility about 5 per cent and 10 per cent higher respectively (Saw, 1966). But by 1977, the Malay fertility rate was the highest, followed by the Indians and Chinese in that order. These reductions in fertility by race are shown in Table 4.4.

The difference in fertility decline between the different racial groups is striking. The different onset of fertility decline and the different rates of decline are of course the immediate explanation for this variation, but those differences in turn are due to the differences in the age-patterns of fertility and the extent of the decline among different groups of women. The patterns of fertility decline in the age-specific birth rates from 1957 to 1977 are shown in Table 4.5.

From Table 4.5, it can be seen that over the period 1957-77 fertility of the whole population declined at all child-bearing ages from fifteen to forty-nine. The fertility distribution is of a late-peak type, as maximum fertility was concentrated between ages 25 and 29. This applied for all races taken together, and for the Chinese and Indians particularly. For the Malays, however, this was a late development and over the period cited total fertility was highest in the 20-24 year age group, for 1957 and 1967.

In 1957, the total fertility rate (TFR)¹ for Malays was lower than for the other major racial groups, though still very high by international standards. The rate for Malay women was 6,095, for Chinese 7,070 and for Indians 7,675. This lower rate for Malays was due

¹ i.e. the number of children each 1,000 women would bear during the whole of their potential childbearing years, if the rates for each age group remained as in the year of calculation.

TABLE 4.5
Changes in Age-Specific Fertility Rate (ASFR)
by Race, 1957-1977

<i>Age Group by Race</i>	<i>ASFR 1957</i>	<i>ASFR 1967</i>	<i>ASFR 1977</i>
<i>All races</i>			
15-19 ¹	132	68	41
20-24	332	248	177
25-29	332	293	223
30-34	257	242	180
35-39	168	154	116
40-44	70	59	46
45-49 ²	19	17	6
<i>Malays</i>			
15-19 ¹	117	90	50
20-24	345	268	196
25-29	286	268	234
30-34	211	241	206
35-39	137	150	144
40-44	47	55	63
45-49 ²	16	17	9
<i>Chinese</i>			
15-19 ¹	46	29	24
20-24	291	204	140
25-29	395	270	211
30-34	341	243	156
35-39	230	162	87
40-44	112	72	28
45-49 ²	26	17	4
<i>Indians</i>			
15-19 ¹	234	103	48
20-24	413	326	202
25-29	393	339	221
30-34	278	252	138
35-39	153	154	71
40-44	51	49	21
45-49 ²	13	13	3

¹Includes births to women aged less than 15.

²Includes births to women aged 50 and over.

Source: Jones, 1980.

mainly to the very high rate of divorce, which meant irregular and shorter periods of exposure to the risk of childbearing (Saw, 1966). Also the pattern of childbearing amongst Malays was concentrated in the earlier age group (20-24) due to the earlier age of marriage for Malay women at that time.

After 1957, and particularly between 1957 and 1967, the Malay initial fertility levels (i.e. for the 15–24 age group) fell dramatically, whilst fertility levels for ages 30 and above rose. This suggests that the sharp rise in the age at marriage was the main reason for the fertility decline, and that women marrying later, but wanting much the same number of children as before, tended simply to reschedule their childbearing to older ages (Jones, 1980). A contributing factor was the decline in the rate of divorce among Malays during that period.

In later years (1967–77), the reduction in Malay fertility was evident in all age groups except 40–44. There were signs of a decline in marital fertility, but this was only slight. In short, over the period 1957–77, the decline in Malay fertility was due mainly to a rise in the average age of Malay women at marriage.

For the Chinese, however, the sharp decline in fertility of the 15–19 age group experienced by the Malays and Indians were less striking, mainly because the rate was so low to begin with. The decline in Chinese fertility was also more even, suggesting a real change in the fertility of married women.

In 1957, the Malay fertility level was higher than the Chinese for age group 15 to 24 years, but at ages over 24 this was not so. This reflected the pattern of late marriages prevalent among the Chinese women. By 1977, the fertility of the Chinese had declined quite considerably, implying that over the span of twenty years, declining marital fertility coupled with a higher age at marriage had produced low fertility levels, comparable to those of many Western countries.

The Indian fertility pattern on the other hand had more in common with that of the Malays. The high fertility in the youngest age group was mainly due to early marriage. Their fertility rates dropped drastically between 1957 and 1977, especially in the 15–19 and 20–24 year age groups, as the average age at marriage increased. By 1977, the total fertility rate of the Indian population remained higher than that of the Chinese, although at ages over 30 the Indians had the lowest fertility levels. This perhaps was partly due to declining marital fertility and the wish to terminate childbearing early.

Thus the general fertility decline over the 1960s and 1970s was caused by factors such as postponement of early marriage, reduction in marital fertility, and probably an increasing proportion of women who remained spinsters throughout their childbearing ages, though the evidence for the latter trend is not yet clear. In addition, improved education opportunities, higher female participation in the labour force and the desire to limit family size for economic reasons

have also been important. The national family planning programme has also played its part in reducing fertility. According to the family survey of 1966-7 (Nor Laily, Tan & Kuan, 1977), most of the decline in marital fertility in the 1960s was due to the acceptance of modern family planning methods by women under 30.

On this fertility decline, Jones (1980: 15-19) in the series of 'standardization'¹ he performed, showed that the changing age structure accounted for almost none of the decline in crude birth rates in 1957, whereas the changing age of marriage accounted for two-thirds of the decline, while declining marital fertility accounted for the remaining one-third. He also showed that between 1957 and 1974, declining marital fertility was responsible for about half of the decline in crude birth rates.

It is a well documented view that fertility and economic development are inversely related and that economic development has an inhibiting effect on fertility. However, one recent study (Fong, 1978) argued that economic development has had only a marginal effect on fertility levels in Peninsular Malaysia. If this is correct—and some demographers question Fong's argument—economic development will need to be augmented by a more aggressive family planning programme, if population growth is to decline to the Government's 2.0 per cent per annum target by 1985.

PROJECTIONS

By taking certain assumptions concerning the future course of mortality, fertility and migration, the Department of Statistics has published two sets of four different quinquennial population projections up to 1990. One is based on the population count at the 1970 census. The other is based on this count adjusted for under-enumeration, based on the Post-Enumeration Survey (Solomon, 1977). In this chapter, the second set will be considered since it is likely to be more accurate. It is assumed that the net effect of migration will be zero² and that the 1970 mortality level will prevail throughout the twenty-year period 1970-90. As for fertility, there were four sets of assumptions used, namely, A, B, C and D, but for Sabah and Sarawak, projections were based on assumption A only. The various projections are as follows:

¹ In its simplest and most straightforward form it consists in establishing a standard population composition and then applying a set of specific rates to it in order to note what the general rate would be if a particular population had the same composition as the standard (Bogue, 1969).

² In fact there has been a small net emigration during the 1970s.

TABLE 4.6A
 Distribution of Projected Population (Adjusted) by Community for Peninsular Malaysia,
 1970-1990, Projections A-D

<i>Year</i>	<i>1970</i>		<i>1975</i>		<i>1980</i>		<i>1985</i>		<i>1990</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
PROJECTION A										
TOTAL	9,146,681	100.0	10,528,621	100.0	12,187,683	100.0	14,233,628	100.0	16,521,592	100.0
Malay	4,822,263	52.7	5,591,656	53.1	6,497,693	53.3	7,635,618	53.6	8,910,051	53.9
Chinese	3,273,834	35.8	3,740,682	35.5	4,308,230	35.3	4,987,791	35.0	5,747,620	34.8
Indian	977,922	10.7	1,113,417	10.6	1,288,513	10.6	1,505,633	10.6	1,747,011	10.6
Others	72,662	0.8	82,866	0.8	93,247	0.8	104,586	0.7	116,910	0.7
PROJECTION B										
TOTAL	9,146,681	100.0	10,496,501	100.0	12,036,741	100.0	13,861,904	100.0	15,823,706	100.0
Malay	4,822,263	52.7	5,569,608	53.1	6,394,638	53.1	7,387,224	53.3	8,454,829	53.4
Chinese	3,273,834	35.8	3,732,681	35.6	4,270,381	35.5	4,890,622	35.3	5,556,644	35.1
Indian	977,922	10.7	1,111,346	10.6	1,278,475	10.6	1,479,472	10.7	1,695,323	10.7
Others	72,662	0.8	82,866	0.8	93,247	0.8	104,586	0.7	116,910	0.7

PROJECTION C

TOTAL	9,146,681	100.0	10,484,026	100.0	11,978,567	100.0	13,702,589	100.0	15,462,254	100.0
Malay	4,822,263	52.7	5,565,075	53.1	6,374,154	53.2	7,324,352	53.4	8,305,402	53.7
Chinese	3,273,834	35.8	3,727,227	35.5	4,244,742	35.4	4,825,535	35.2	5,406,547	35.0
Indian	977,922	10.7	1,108,858	10.6	1,266,424	10.6	1,448,116	10.6	1,633,395	10.6
Others	77,662	0.8	82,866	0.8	93,247	0.8	104,586	0.8	116,910	0.7

PROJECTION D

TOTAL	9,146,681	100.0	10,439,440	100.0	11,769,969	100.0	13,229,387	100.0	14,699,733	100.0
Malay	4,822,263	52.7	5,536,426	53.0	6,240,142	53.0	7,022,517	53.1	7,809,032	53.1
Chinese	3,273,834	35.8	3,713,583	35.6	4,181,235	35.5	4,683,022	35.4	5,197,219	35.4
Indian	977,922	10.7	1,106,565	10.6	1,255,345	10.7	1,419,262	10.7	1,576,572	10.7
Others	77,662	0.8	82,866	0.8	93,247	0.8	104,586	0.8	116,910	0.8

Source: Malaysia, 1976a.

TABLE 4.6B
Distribution of Projected Population by Community for Sabah, 1970-1990,
Projection A

<i>Year</i>	<i>1970</i>		<i>1975</i>		<i>1980</i>		<i>1985</i>		<i>1990</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
PROJECTION A										
TOTAL	650,450	100.0	747,049	100.0	863,038	100.0	1,006,631	100.0	1,178,045	100.0
Kadazan	183,156	28.2	207,650	27.8	238,013	27.6	276,211	27.4	322,783	27.4
Murut	30,795	4.7	33,351	4.5	36,228	4.2	39,866	4.0	44,359	3.8
Bajau	77,670	11.9	83,202	11.1	90,753	10.5	100,552	10.0	112,254	9.5
Other indigeneous	125,731	19.3	154,641	20.7	187,891	21.8	229,289	22.8	279,263	23.7
Chinese	138,675	21.3	160,326	21.5	186,478	21.6	217,169	21.6	250,732	21.3
Others	94,423	14.5	107,879	14.4	123,675	14.3	143,544	14.3	168,654	14.3

Source: Malaysia, 1976a.

TABLE 4.6C
Distribution of Projected Population by Community for Sarawak, 1970-1990,
Projection A

<i>Year</i>	<i>1970</i>		<i>1975</i>		<i>1980</i>		<i>1985</i>		<i>1990</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
PROJECTION A										
TOTAL	972,431	100.0	1,118,631	100.0	1,299,265	100.0	1,525,086	100.0	1,789,371	100.0
Malay	180,440	18.5	212,038	19.0	249,237	19.2	295,649	19.4	349,738	19.5
Melanau	53,226	5.5	53,908	4.8	55,695	4.3	58,429	3.8	61,757	3.5
Sea Dayak	302,942	31.2	347,551	31.1	398,347	30.7	461,746	30.3	538,089	30.1
Land Dayak	83,139	8.5	95,696	8.6	111,477	8.6	131,557	8.6	155,759	8.7
Chinese	292,454	30.1	347,327	31.0	419,147	32.3	507,659	33.3	608,353	34.0
Others	60,230	6.2	62,111	5.6	65,362	5.0	70,046	4.6	75,675	4.2

Source: Malaysia, 1976a.

Projection A

assumes that the 1970 fertility rate will remain constant throughout for all communities.

Projection B

assumes that:

- (a) For the Malay population, fertility will decline 10 per cent from 1970-80 and 5 per cent from 1980-90.
- (b) For the Chinese population, fertility will decline 12 per cent from 1970-90.
- (c) For the Indian population, fertility will decline 10 per cent from 1970-90.
- (d) For other populations fertility will remain constant.

Projection C

assumes that:

- (a) For the Malay population, fertility will decline 12 per cent from 1970-80 and 10 per cent from 1980-90.
- (b) For the Chinese population, fertility will decline 15 per cent from 1970-85 and 10 per cent from 1985-90.
- (c) A 22 per cent linear decline in fertility for the Indians from 1970-90.

Projection D

assumes that:

- (a) Fertility will decline 25 per cent from 1970-80 and 10 per cent from 1980-90 for the Malay population.
- (b) Fertility will decline 20 per cent from 1970-80 and 10 per cent from 1980-90 for the Chinese population.
- (c) Fertility will decline 33 per cent from 1970-90 for the Indian population.
- (d) Fertility will be constant for the other populations.

The various projections based on the above assumptions for 1970 to 1990 are given in Tables 4.6A, 4.6B and 4.6C.

LABOUR FORCE

In the 1970s, whilst average population growth in Peninsular Malaysia was estimated at 2.6 per cent per annum, the labour force was growing at 3.8 per cent, increasing from 3 million in 1970 to an estimated 4.5 million in 1980 (Malaysia, 1981). The reverse was the case in the 1950s, when the population grew much faster than the labour force. There were about 1.3 million new entrants to the labour force during the 1970s, of which 52 per cent were Malays,

36 per cent Chinese, 11 per cent Indians and 1 per cent other races (Malaysia, 1979c).

This rapid growth of labour force was partly due to the youth of the population, brought about by the rapidly declining infant mortality level and the 'post-war baby boom' of the 1950s. Another factor was an increase in the proportion of women entering the labour force.

In the 1970s, as a result of a further decline in mortality and fertility, the share of the population in the 15-64 years age group increased. It was 52.5 per cent in 1970, and 55.0 per cent in 1975 and 57.5 per cent in 1980. A notable feature of this change was the relatively faster growth of the 15-39 age groups, increasing at 4.3 per cent per annum compared with the labour force as a whole, which increased at 3.8 per cent per annum during the 1970s (Malaysia, 1981).

The change in the rate of female participation in the labour force has produced an important structural change (see Table 4.7). Between 1957 and 1976, the male participation rate declined slightly, but the female rate increased substantially. Nevertheless, by 1976, the female participation rate remained about half that of the male. This disparity is explained more by socio-economic than demographic factors. In Peninsular Malaysia, most women continued to play the traditional role of mother and housekeeper, and the felt need to seek paid employment was much lower than with men. Apart from those who were professionally qualified or who had above average education, women generally sought jobs outside the home only when it was necessary to supplement family income (Lau, 1979).

In comparing the rural and urban labour forces in 1976 (see Table 4.8), the participation rates were still highest in the rural areas. The overall difference in male participation rates between rural and urban labour forces was not great, except for the age group

TABLE 4.7
Labour Force Participation Rate in Peninsular Malaysia,
1957-1976

<i>Year</i>	<i>Male (%)</i>	<i>Female (%)</i>
1957	88.7	30.8
1970	81.3	37.2
1975	86.0	47.3
1976	85.3	46.1

Sources: Malaysia, 1970; Malaysia, 1975; Malaysia, 1980.

15-19 and for those over 55. This was perhaps due to longer schooling and earlier retirement in urban areas. In both sectors, the male participation rate reached its peak around 30 and this high rate remained at about that level until age 50.

The differences in female participation rates between the rural and urban labour forces were more pronounced. From the age of 30 years, participation in the rural sector was substantially higher, right up to the age of 65. Below 25, however, female participation in the urban sector was slightly greater, reflecting the absorption of young women into the lowest paid unskilled employment offered by labour intensive manufacturing industries in the main urban centres.

In the urban labour force, female participation dropped sharply after the 20-24 age group, from 59 to 45.7, and thereafter declined slowly but steadily right up to the 60-64 age group. In the rural sector, however, after a quite modest drop in the 25-29 year groups (presumably due to marriage and childminding responsibilities) it rose to about 60 and stayed there for all rural age groups from the age of 40 to 55.

These patterns of female participation conform to known differences in the opportunities for employment between the rural and urban areas. Much of the urban employment of women was in work that had only become available on a large scale in the 1970s, and was mainly in low paid occupations in which young people, and

TABLE 4.8
Labour Force Participation Rate by Age,
Sex and Residence in 1976

Age	Male		Female	
	Urban	Rural	Urban	Rural
15-19	47.8	54.4	40.1	35.2
20-24	92.0	91.4	59.0	51.7
25-29	98.3	98.1	45.7	45.9
30-34	98.4	98.9	43.7	50.9
35-39	99.1	98.7	41.0	56.1
40-44	98.7	98.9	35.5	58.0
45-49	96.5	98.4	31.8	60.1
50-54	93.8	95.8	25.6	57.6
55-59	75.3	86.0	25.1	41.1
60-64	59.1	73.8	17.5	34.9
15-64	84.1	85.8	41.9	48.0

Source: Malaysia, 1980.

particularly young women, were preferred. There developed, therefore, a substantial population of young women migrants in and around those towns where the manufacturing and service industries are concentrated, and it was natural that the participation rates amongst those young women should be high, since it was mainly the availability of paid employment that attracted them from the rural areas. For the older women, above the age of 25, participation in the work force remained considerably higher in the rural areas than in the towns.

In Peninsular Malaysia, overt unemployment is largely a phenomenon of youth. Even though unemployment declined in the late 1970s, it remained high, particularly among the young. People between the age of 15–24 constituted about 35 per cent of the labour force (Malaysia, 1979c), and were mostly school leavers who were first-time job seekers. The high unemployment rate among youth (15–24) is illustrated in Table 4.9. The high rate of youth unemployment in the urban areas was partly due to the migration of rural youth to urban centres in search of employment.

In terms of education level, the 1976 Labour Force Survey noted that about 17.4 per cent of the unemployed had no formal education, 78.2 per cent had either primary or lower and middle secondary education and only 1.1 per cent had upper secondary education. In the 1980s and 1990s, however, as the proportion with higher educational qualifications increases, the proportion of unemployed with upper secondary education may be expected to rise.

TABLE 4.9
Unemployment Rate by Age and Residence for
Peninsular Malaysia, 1976

Age	Total	Unemployment Rate	
		Urban	Rural
15–19	16.1	17.9	15.2
20–24	9.3	9.0	9.5
25–29	4.1	4.0	4.1
30–34	2.7	3.5	2.4
35–39	2.1	3.3	1.6
40–44	2.6	3.5	2.2
45–49	2.3	2.7	2.1
50–54	3.2	4.4	2.8
55–59	6.5	9.0	5.8
60–64	6.5	6.9	6.4

Source: Malaysia, 1980.

The past bias in education towards the arts and the emphasis in tertiary education on university level rather than technical college level has resulted in significant shortages of scientific and technical as well as middle-level skilled (normally diploma) manpower. Also, there has been over-emphasis on the 'academic' stream of education, and technical and vocational streams have been relatively neglected. The Manpower Survey in 1973 showed that while the overall vacancy rate was low, the vacancy rate in professional and technical employment was high.

During the first half of the 1970s, unemployment increased among non-Malays whereas that among Malays declined in proportion. Between 1970 and 1975, total unemployment increased by 31,500. Of this, the increase was only 6 per cent for the Malays, whereas Chinese and Indians accounted for 52.4 and 33.3 per cent of the increase respectively. As a result, the rate of unemployment among Malays declined from 8.1 per cent in 1970 to 6.9 per cent in 1975, whereas among Chinese it increased from 7 per cent to 7.2 per cent and amongst Indians from 11 to 12.2 per cent (Thillainathan, 1977).

Thillainathan found that Malay employment has increased substantially in commerce and industry as well as in agriculture and the service sector. This is in accord with the restructuring objectives of the NEP. However, Chinese employment in mining and Indian employment in utilities and commerce had declined.

URBANIZATION AND REGIONAL GROWTH

In the first two decades after 1911, the urban population (defined as population in towns of 10,000 and over) grew steadily from 10.7 per cent to 15.1 per cent of the population partly due to the influx of immigrant labour. But, from the early 1930s until 1947, the rate of urbanization slackened quite appreciably, arising from the restrictions imposed on immigration in 1933 and subsequently. The growth of towns after the Second World War was due more to social and political forces than to the interplay of immigration and economic development.

The first post-war intercensal period 1947-57 witnessed a significant jump in the proportion of urban population. During this decade, the population increased about 28 per cent, but the urban population grew by 105 per cent. The largest single factor in this accelerated urban growth was the resettlement programme implemented between 1948-60 to combat the communist insurgency. The Briggs Plan resettled half a million rural settlers, mainly Chinese, to 'New Villages', which were located mostly within a few miles of

their original homes. The Emergency thus stimulated a rural-urban movement of rural families to more secure town areas.

Another factor contributing to this rural-urban drift was the concentration of public sector investment in the towns. The post-war period has seen a rapid increase in public construction works, and this activity—building bridges, airports, schools, medical centres, mosques, etc.—even where the work was outside the urban centres, has been operated and maintained from them (Lim Chong-Yah, 1967). This tendency is likely to continue in the 1980s and 1990s, and to spread into Sabah and Sarawak.

Although the proportion of urban to total population has continued to increase the rate of growth slowed in the 1960s. After the 'peak rate' of 5.84 per cent per annum during 1947-57, it declined to 3.21 per cent in the next intercensal period of 1957-70. This decline in the rate of urban growth was to be expected, for various reasons. First, a substantial part of the 1947-57 growth was artificially generated by the resettlement programme, which had ended by the late 1950s. There was probably a small amount of return flow after the Emergency was over, as some rural people returned to their farms in former terrorist-dominated areas. There were also grounds to believe that there was some understatement of the urban population, especially in the 1970 census, particularly among the squatters and the dwellers on the fringe of town areas.

During the 1970s, in accordance with the NEP, the Government has attempted to reduce the incidence of poverty and the flow of migrants into established urban centres, and at the same time to increase the Malay urban population. One strategy adopted was to develop new growth centres in regional development areas such as Pahang Tenggara (DARA), Johor Tenggara (KEJORA), Trengganu Tengah (KETENGAH), Jengka and Kelantan Selatan (KESEDAR). These new 'urban centres', together with development programmes carried out by the Federal Land Development Authority (FELDA), the Federal Land Consolidation and Rehabilitation Authority (FELCRA) and the Rubber Industry Smallholders Development Authority (RISDA), also stimulated internal migration, particularly from less developed areas to areas of economic potential. In fact, about 8 per cent of all interstate migration in Malaysia in recent years was a direct consequence of FELDA resettlement, and a further proportion undoubtedly resulted from spin-off economic effects induced by FELDA schemes (MacAndrews and Yamamoto, 1976).

Since 1947, the racial components of urban population have been undergoing changes, as can be seen from Table 4.10.

During the 1970s, the urban population of Peninsular Malaysia

TABLE 4.10
Growth Rates of Urban Population by Race
for Peninsular Malaysia

Period	Average Annual Growth Rate (%)				
	Malay	Chinese	Indians	Others	Total
1947-57	7.1	5.9	4.6	7.3	5.8
1957-70	5.5	2.7	3.2	4.5	3.2
1971-75	7.0	3.9	4.3	5.4	4.8
1976-80	6.4	3.4	4.0	3.8	4.4

Sources: Fell, 1957; Malaysia, 1970; Malaysia, 1981.

grew at an annual rate of 4.6 per cent, with an increasing proportion of Malay urban population. However, the Chinese remained the largest component, irrespective of the size of the urban centres. In fact, it has been estimated that in 1980 some 53.8 per cent of the urban population were Chinese, with Malays 32.8 per cent and Indians 12.3 per cent.

Internal migration increased during the 1960s and 1970s, after the subsidence of the artificially induced migration caused by the Emergency resettlement in the early 1950s, and a new pattern has emerged. However, internal immigration tended to be concentrated in Peninsular Malaysia, and migration between Sabah and Sarawak, and Peninsular Malaysia had not developed to any significant scale. Even within the Peninsula, the greater part of the migration in the 1970s was the shift to the industrializing urban areas on the one hand, and to the new land settlement schemes on the other. As Chander (1977) pointed out, there were two 'magnets' toward which a large part of the migration was attracted, one in the state of Selangor on the West Coast, and the other in the state of Pahang on the East Coast. The vast industrial development in the Kelang Valley of Selangor and the extensive clusters of land development schemes in Pahang have provided the primary attractive forces. There are also a few other clusters of importance particularly in the Penang/Butterworth area.

The new pattern of migration is, however, quite marked in certain characteristics, and is of very great social, political and economic importance. The first characteristic is the large proportion of Malays in the internal migratory movement. This is particularly notable in rural-urban migration, because increased participation of bumiputras in urban activities is vital to the achievement of important parts of the restructuring of society required under the New Economic Policy. However, the migration to new land development

schemes has also been predominantly Malay, and this has played a part in the development of a significant Malay rural middle class. The lower proportion of Chinese in the rural-urban migration is, however, not solely, or even mainly, due to the implementation of the New Economic Policy, but rather, as Caldwell (1963) pointed out, because so large a movement of Chinese from rural to urban locations had already been effected during the Emergency.

A second important characteristic of this internal migration pattern was its size. A comparison between the 1957 and 1970 censuses shows that the number of persons enumerated as resident in a state other than that in which he was born had increased by about 85 per cent, while the total population had increased only 40 per cent. Moreover, this provided no indication of the even larger internal flows that could have taken place within state boundaries, whether to urban areas or to land developments. The total numbers involved were considerable.

The effects of this migratory pattern are discussed in many of the chapters of this book, for they penetrate into all aspects of Malaysian society and economy. In the new land settlements, a new socio-economic grouping, i.e. bumiputras with high middle class incomes and good amenities, in both respects considerably better off than the majority of rural residents, has emerged. In the newly industrialized towns, a new low income class of young people, with a high and increasing bumiputra (so far mostly Malay) component, has also become established. In the traditional Malay kampung areas, there are emerging pockets of neglected or under-utilized agricultural resources, including smallholdings of high yielding rubber, where the outflow of young migrants has left a shortage of labour for the harder tasks of production. Finally, the racial, age and income status of the migrating groups had also produced changes far beyond the direct economic effects, altering the social, political and religious *status quo* in ways that were not by any means clearly seen in the accepted wisdom of the late 1970s.

5 The Political Structure

I

MOST analysts of Malaysian politics pinpoint *race* as the basis for understanding this multiracial society's political structures and phenomena. In very broad and simple terms, the contest for political power is one between the dominant racial groups, the Malays (who claim legitimacy and political supremacy on their being the original inhabitants or bumiputra) and the non-Malays—largely referring to the Chinese (who like the other migrant groups have or are gaining in status as nationals and concomitantly challenge the Malay claim).¹ In some sense, indeed, there appears to be a tendency to interpret every issue in the country as racial even if its origins are non-racial.

Using the racial paradigm as the leitmotif for discussion, this chapter aims to provide an overview of the political situation in the country, highlighting to some extent the extant conditions and probable trends. By noting some of the changes taking place in the system, it is hoped that this analysis will be able to avoid being a 'static' one. Changes that are taking place not only refer to government policies but also to independently occurring factors such as education and other spheres (for example, new groups of government-sponsored intellectuals that emerge to question the status quo) as well as other unintended ramifications. Although this study focuses on the domestic political situation, it should be evident

*I am thankful to the editors and fellow contributors of this book for comments on an earlier draft. My thanks also to Lee Poh Ping of the University of Malaya for his thoughtful suggestions and remarks. Needless to say, I am alone responsible for any errors or omissions.

¹More correctly, the 'Malays' category should include the other indigenous peoples such as the Iban, Bajau, etc., and the 'non-Malays' to mean the non-indigenous as well. Prior to the formation of Malaysia in 1963, the Malay/non-Malay dichotomy was real but presumably should have been superseded by the categorization of indigenous/non-indigenous groupings. However, when much of Malaysian national politics is discussed, the notion of 'Malays versus non-Malays' seems prevalent, perceptually or otherwise.

that external stimuli are also important, such as the effects of the Vietnamese refugee phenomenon on the state and national politics of the country (see Zakaria, 1979). For purposes of elaborating the racial underpinning of the country's politics, we shall focus on three separate but related parameters, namely, the political party power structure, the New Economic Policy (NEP) and rural development strategies.

II

There are several facets of the Malay/non-Malay schism that require elucidation.

First, there appears to be a prevailing notion—often referred to as the 'bargain'—that political power would be and would remain the domain of the Malays whilst the non-Malays, specifically the Chinese, would be allowed full participation in economic and commercial activities. Related to this trade-off is the so-called 'special position of the Malays' (such as quotas in favour of Malays in public service recruitment) exchanged for the granting of citizenship to the non-Malays. It is not necessary to furnish details of the 'bargain'; suffice to note, however, that the bases of such an arrangement have been called to question and were dramatically challenged in the racial riots of May 13, 1969. Although some of the issues have been denied public debate as entrenched in the 1971 Constitutional amendments, they are nonetheless serious political posers (see Tjoa, forthcoming).

Second, although the Malays are the predominant racial group in the population and the electorate, they also constitute the majority of the poor or economically backward sector. Attempts to rectify this anomaly have only resulted in more grievances among the non-Malays, while at the same time advances amongst the Malays have not been equitable and seem not to affect the majority of them. The ramifications of these considerations are discussed more fully below.

Third, the Malay/non-Malay schism cannot be understood simply in racial terms. In the quest for national unity, the *communal* nature of the problem is one that is most challenging. For one, the constitutional definition of 'Malay' is apt to be questioned in later years, when whole generations are able to speak Malay, adopt Malay ways (whatever that may mean) and even accept themselves, however tokenly, as Muslims. The last aforementioned factor, that of religion, is probably the most vexing, and most probably also, the most dangerous aspect of the communal dimension. Some observers have pointed out that inter-marriage between the races as a partial

solution to the national unity problem is well nigh impossible¹ because of the complexities of conversion to the Islamic faith, since in Islam, marriage almost conventionally requires the proselytization of the non-Muslim.

On a different plane, the notion of an Islamic state—and not as at present a secular one—has its active adherents, and of these, those of the Islamic fundamentalist persuasion tend to espouse the view of denying the non-believers their guaranteed place in Malaysian society. Already, the more extremist elements of the Islamic faith have taken as their duty the destruction of non-Muslim halls of worship. In the light of strong Islamic revivalist currents sweeping some of the shores of the world, this religious aspect of the Malay/non-Malay schism bears constant attention and appraisal. One ramification of the re-emergence of Islam as a political and social force is manifested in current debates within the Malay community as to the proper manner of *dakwah* (missionary activities), as well as the jurisdiction of the *syari'ah* (Islamic law) over non-Muslims. Some of these issues have been controversial (for example, should non-Muslims of either sex be tried for close proximity or *khalwat* with Muslims of the other sex) and some trivial (such as the interpretation that the wearing of judicial wigs is un-Islamic) but not irrelevant.

As yet, religion has not been a major political issue in Malaysia. Although Islam is defined as the official religion, all religions may freely be practised. In this regard, the Malays have *no* freedom of religion since they are by definition Muslim and it is an offence to propagate non-Islamic beliefs to them. For most Malays, nonetheless, Islam is politically important, and the Malay opposition openly advocates an Islamic state and argues that the ruling Malay political party is non- or even anti-Islamic. If and when the question of religion is raised so as to affect the non-Malays, then this will become an overriding political issue. It is to the credit of the ruling political party that this manifestation has been resisted up to the beginning of the 1980s. Also manifesting a threat to domestic tranquillity is the appearance of underground religious movements, but this is more a security problem. The potential importance of the religious factor in Malaysian politics must therefore be kept in mind (see Means, 1969).

Finally, it is only fair to warn that the Malay/non-Malay dichotomy oversimplifies the true demographic situation. Among the Malays are also usually included the *Orang Asli* or aboriginal people

¹ The salience of this was pointed out in a special political report for businessmen. See *Malaysia to 1980: Economic and Political Outlook for Business Planners* (Hong Kong: Business International Research Division, 1977).

who are not truly Malay. Also, the term 'bumiputra' (literally 'sons of the soil') is often used synonymously for 'Malay', but at the same time it is also applied to the 'native' people, that is, the indigenous groups of Sabah and Sarawak. It is erroneous to regard these groups as the same as the Malays. Thus, this caveat should be taken into account.

Against these various facets of the Malay/non-Malay division, nonetheless, the basic issue in Malaysian politics revolves around the question of Malay political supremacy and how this format is challenged.

III

In a parliamentary democracy such as Malaysia, the notion of a ruling political party deriving its mandate from the wishes of the people at regularly held polls is cardinal. However, to understand the political structure it is useful to examine the development of the ruling political coalition, the features of the federal/state relationships, and the characteristics and origins of the bureaucracy.

Since the beginning of modern politics in Malay(si)a, the concept of a coalition of political parties with their separate appeals to their respective supporters—each party being communally-based—seems to have been the compelling successful one. This is illustrated by the Alliance—a coalition composed of the United Malays National Organisation (UMNO), the Malaysian Chinese Association (MCA) and the Malaysian Indian Congress (MIC). Since 1955, the Alliance (and later its successor) has been the Government, first in Malaya and later, Malaysia. After 1969, the Alliance was broadened to include several other parties and became thereafter the *Barisan Nasional* (National Front) or BN (NF). However, central to this coalition formula for both the NF and its precursor, the Alliance, has been the dominance of UMNO, the major Malay political party.

Both the NF and the Alliance may be seen as the crystallization of political power at the federal level, but they are in fact a device that is replicated *mutatis mutandis* in the authority structure in the states. Indeed, it also became and is the model practised in the Bornean states of Sabah and Sarawak.

Although UMNO is recognized as the dominant actor in the Alliance and NF coalition, tensions among the partners are not unknown, and indeed schisms within parties are also significant. Nonetheless, although cabinet posts are apportioned according to racial representation and party strength, there is strong adherence to the discipline of a cabinet-government (see Puthuchear, 1978). The

notion of unity at the highest level of government in the form of the NF cabinet has been used to invalidate both internal and external challenges to it and as such may also be seen as a factor in ensuring Malay political dominance.

The strongest challenges from without to the ruling NF have come from the Democratic Action Party (DAP) and the Pan Malaysian Islamic Party (heretofore PMIP but better known now as PAS). The DAP's support comes mainly from the non-Malays, especially the Chinese in the urban areas, and its challenge is posed against the notion of Malay political supremacy as well as offering a possible alternative to the non-Malay or Chinese components in the National Front. PAS, although basically a regionally-based political party, poses its challenge to the UMNO version of Malay political supremacy, but argues that the country should be an Islamic state and that Malay political rights have been steadily eroded by increasing rights for the non-Malays.

PAS was actually willing to coalesce with the Alliance to form the NF for the 1974 elections, but by 1978 had decided its 'honeymoon' with UMNO was over. Just as there are cracks in the NF structure, so are there fissures in non-NF party organizations. Just as PAS broke away from the NF for the 1978 elections, one of its factions left PAS to form BERJASA, which emerged to challenge it (see Kamaruddin Jaffar, 1979). The significance of these developments actually tests the viability of the coalition arrangement of the National Front. Are the tensions inherent also destructive in the long run? The need for communal solidarity, however, may sustain the notion of intercommunal cooperation as practised in the concept of the National Front as a sort of 'democracy without consensus' according to one observer (see Von Vorys, 1976).

The NF, or more correctly UMNO's, answer to these challenges by the DAP and PAS has been to ensure a continued Malay majority in the electorate—a device successful in maintaining Malay political supremacy as long as voting behaviour remains communal, and a more vigorous application of measures to achieve Malay socio-economic advancement. However, the former can only be sustained if demographic changes do not upset it, whilst the latter is bound to lead to increased Malay participation in political activity and subsequently to erupt in new Malay challenges to existing Malay political concepts. Evidence indicates, in fact, that the size of the non-Malay electorate is becoming on par with that of the Malay electorate (see Sothi Rachagan, forthcoming), whilst the modernization of attitudes among the Malays have led to their acquiring a greater sense of their rights and a sense of the need to question the status quo.

The fact that the electorate is segmented in racial terms is notable as a means of ensuring Malay political supremacy. In the delineation of electoral constituencies, greater weight is given to rural areas, as these are largely populated by Malays. One reason for the inclusion of Sabah and Sarawak in Malaysia at its formation in 1963 was the ready addition of indigenous people (bumiputra voters) in the electoral rolls. Thus, the Borneo states actually strengthen the political base of the NF Government, assuming of course that voting continues to be racial.

The challenge from the DAP and PAS is essentially a Peninsular Malaysian affair. However, the former has attempted to make inroads in Sabah and Sarawak, although without much success due to State Government action.¹ The major opposition in Sarawak had been the Sarawak United People's Party (SUPP) and the Sarawak National Party (SNAP) but these became part of the NF coalition by the end of the 1970s; there is a Malay opposition party (*Parti Jati Rakyat Sarawak*) challenging the Chief Minister's party but so far it has been unsuccessful. In Sabah, up to 1976, political power was in the hands of the United Sabah National Organisation (USNO) but this was then toppled by a breakaway faction called BERJAYA.

From within, the challenges to the National Front come from rebellious party machines or defiant component party bosses and others unwilling to toe the Government line. The UMNO in particular has overcome such recalcitrant individuals or organizations by the establishment of liaison bureaux under the charge of federal ministers and trusted party officials. On some occasions, the regime has not hesitated to invoke security and police mechanisms to remove such challenges, not to mention dismissal action. However, the problem of controlling NF component parties in the states of Sabah and Sarawak has been more vexing and the Central Government has attempted not to show its hand openly in these two areas.

Although the UMNO clearly advocates the notion of Malay political supremacy in a multiracial society, it has not at the present time painted itself also as the champion of Islamic supremacy. Indeed, it is PAS's contention that UMNO has failed by ignoring this particular facet of the Malaysian nation-state. UMNO has not hesi-

¹ As a condition for membership in Malaysia, Sabah and Sarawak have jurisdiction over immigration, so that a passport is required for travel between Peninsular Malaysia and the two Bornean states. Thus, the Sabah and Sarawak State Governments have simply refused admission to visits by DAP representatives.

tated to use Islam as a rallying call whenever the situation warranted it, but this does not appear to have been done also to deny the rights of other religions. Nonetheless, for how long UMNO will be able to resist becoming more Islamic to offset the criticisms of PAS will be a significant problem in the coming years, and certainly one fear amongst non-Malays (that is, non-Muslims) is the seemingly increasing use of Islamic symbols in the nation's ways of life, a problem area already alluded to above.

One other aspect of the Malay political supremacy concept as embodied in the intercommunal coalition formula is the notion of 'a strong, central government'. Apart from the issue of strong party control from the centre, which we have alluded to above, a strong Central Government implies also weak local authority, municipal and state power centres. The federal structure ensures that the majority of powers remains in the hands of the Central Government; for the states, only land is their prerogative. Friction has consequently erupted between the Federal and State Governments over land ownership and utilization, and as land administration is still carried out through the system of district offices, political considerations have also come into conflict with the 'non-partisan' values of Federal land bureaucrats. One manner of overcoming these tensions has been the use of central party powers to contain local party influences and demands. Increasingly also, the Federal Government has attempted to defuse local-level political problems by diverting attention to local government inefficiency. Power is thus concentrated as far as possible in the centre, whence a measure of Malay political supremacy can be assured.

One important aspect of a strong political party structure in Malaysia may also be the availability of a strong bureaucratic apparatus such as that existing in the civil service and the police. To an extent, it may very well be that Malay(sia) inherited from its colonial masters the legacy of a closely-administered political structure and a highly effective public bureaucracy. Indeed, Malaysia may well qualify as an 'administrative state' (see Esman, 1972). The existence of these organs makes easier the implementation of policies, including the NF's modernization programmes, but conversely it could also destroy the regime's credibility through inefficiency and incapacity. However, the evidence indicates that the bureaucracy in Malaysia, though non-partisan, is highly committed to the achievement of the Government's goals (see Puthuchear, 1978; Elyas Omar, 1974; Zakaria, 1977).

Nonetheless, the Government's own attempts at modernization may reduce somewhat the viability and strength of the central party structure, an aspect which we may now examine.

IV

Up to 1969, the Malaysian Government operated on the assumption that the trade-offs between Malays and non-Malays in the political and economic spheres of the country were more or less generally accepted. However, the bloody racial riots of May 13, 1969—which we could regard as equivalent in magnitude and impact to the effect the Sputnik had on the American people—provided ample proof that not all was going well. The initial reaction was to regard May 13 as a communist-managed affair, but over the next two years, coinciding with a period of suspended parliamentary government, considerable soul-searching went into probing the causes of the tragedy. The proposed solution to the root diseases which caused May 13 was the promulgation of the New Economic Policy (NEP) as contained in the Second Malaysia Plan (SMP) for 1971–5 and the Outline Perspective Plan (OPP) spread over a twenty-year period from 1970 to 1990.

Observers generally concede, even if in retrospect, that the root causes leading to May 13 were that Malays were not happy with their pace of modernization nor with the notion that their main activity was politics, whilst the non-Malays were not content to partake only in economic activities and agree to the notion of Malay special rights. More important, both the Malays and the non-Malays who were most dissatisfied with the policies and stand of the Government were those who had benefited the most from such policies and who in fact demanded more. The Malays who seemed to complain most were those who had begun to reap the benefits of Government programmes but felt progress was slow or not enough, whilst the non-Malays who felt aggrieved were usually those who had tasted economic success but who also felt that political power should not be the monopoly of, or be dominated by, the Malays. At the same time, some of the more advantaged Malays had begun to question the rights granted to non-Malays (such as citizenship), while at the same time some of the advantaged non-Malays had begun to query the 'special rights' of the Malays. In a sense, then, it could be said that the level of expectations had accelerated faster than the rate of satisfaction and attainment, and that frustration had set in, especially among the youth.

The NEP enunciated two broad objectives, namely the 'restructuring' of society and the eradication of poverty. As well elucidated in summary form in the document outlining the SMP:

The plan incorporates a two-pronged New Economic Policy for development. The first prong is to reduce and eventually eradicate poverty, by raising income levels and increasing employment opportunities for all Malaysians, irre-

spective of race. The second programme aims at accelerating the process of restructuring Malaysian society to correct economic imbalance, so as to reduce and eventually eliminate the identification of race with economic function. This process involves the modernisation of rural lives, a rapid and balanced growth of urban activities and the creation of a Malay commercial and industrial community in all categories and at all levels of operation, so that Malays and other indigenous people will become full partners in all aspects of the economic life of the nation (Malaysia, 1971).

The plan for achieving the objectives of the NEP stipulated massive public sector participation in the economic and commercial spheres as well as Government intervention in legal and administrative aspects. Thus, a host of statutory corporations such as the National Corporation (PERNAS) and the State Economic Development Corporation (SEDC), as well as business ventures under Government aegis, were established.

A major objective of this form of participation was to ensure Malay participation in the ownership and control of the corporate wealth in the country. It was planned that by 1990 Malays should own and control 30 per cent of the nation's share capital instead of a mere 2 per cent in 1970. Over the same period, non-Malay shares would increase from 23 per cent to 40 per cent, and foreign share ownership would be reduced from 62 per cent to 30 per cent. These targets are assumed to be attainable under conditions of sustained growth (see Chee, 1975). The Government has also initiated legislation to redress racial economic imbalance through the provision of more opportunities for bumiputra participation in the private sector. A specific piece of legislation, the Industrial Coordination Act, 1975, was enacted to achieve, among other things, this goal.

One of the major activities of a number of public and semi-government institutions has been to acquire and own shares available in the corporate sector. It has been announced that the ownership of these acquired shares will eventually be transferred to Malay control. However, certain problems are inherent in a strategy of this kind. First, the acquiring of these shares has been interpreted as a Malay take-over of non-Malay sources of wealth and also as a means of sustaining the Malay political imperative. Secondly, although quite a number of Malay millionaires and *nouveaux riches* have been created because of such a policy, and some re-distribution has been effected, there remain large numbers of Malays that have not really benefited. Thirdly, at the operational level, the management of such shares *in trust* has led to abuse. Fourthly, the activities of public statutory corporations and other Government enterprises have not always been financially sound and have resulted in a few *débâcles*, such as the gross mismanagement of the Bank Rakyat (People's Bank)¹ (Price Waterhouse, 1979). These problem areas, in

turn, have become the bone of much contention, both among Malays and non-Malays and indeed may have exacerbated Sino-Malay tensions. Moreover, the targets set inevitably increase the expectations of the people, especially those who are intended to be the beneficiaries, and thus the NEP has some potentially destabilizing aspects, especially in the implementation phases.

Nonetheless, in April 1981 the Government launched the ambitious unit trust share scheme which is the means of having more Malay ownership and investment in corporate wealth at the same time that the 30 per cent target of Malay corporate ownership is achieved by 1990. Participation is expected to be fully undertaken.

'Restructuring' and the eradication of poverty entails considerable modernization of bumiputra attitudes as well as rectification of regional economic imbalances. The latter goal is being tackled by various strategies such as the creation of 'new growth centres' in rural areas, integrated land and agricultural schemes as well as specific *in situ* development projects. Much encouragement has been given to the 'urbanization' of attitudes and the effectiveness of this is evidenced by the growing number of urban migrants. Although much research still needs to be done, these programmes, to say the least, seem to create in themselves other problems. For example, the drift of kampung youth and families to the urban zones has increased the squatter population. In Kuala Lumpur alone, some estimates have put the squatter numbers at one-quarter to one-half of the capital's population.² Rapid urbanization has also overtaxed the capacity of municipal authorities to furnish adequately the minimum services such as garbage disposal, sewage, water and electricity.

Politically, the modernization of such sectors of the population has certain consequences. Not only is there emerging a fairly large Malay urban proletariat, but a *lumpenproletariat* is also in the making. Already there are indications that the problem of squatter settlements is becoming a more intractable administrative issue, because alignments are being formed between such groups and local political party leaders. Unemployment among the urban migrants may also cause resentment that is detrimental to the ruling govern-

¹ See the Government White Paper on the mismanagement of Bank Rakyat by Price Waterhouse (Laporan Price Waterhouse & Co. mengenai Bank Kerjasama Rakyat Malaysia Berhad—Price Waterhouse Report on the Bank Rakyat Malaysia), 1976.

² The figures on the squatter population in Kuala Lumpur and elsewhere seem divergent. See the papers presented at the *Bengkel 'Masalah Setinggalan di Kota'* (Workshop on 'The Problems of Urban Squatters'), Universiti Kebangsaan, 14–15 June, 1979.

ment. Although hard data are not available, it has been taken as significant that a majority of those directly involved on the Malay side in the May 13 mayhem were residents of the squatter settlements of Kampong Kerinchi, Kampong Bharu and other areas. Also, the ex-UMNO Youth Leader, Harun Idris, seemed to have had a large following amongst the squatter youth.¹ In short, pro-Malay modernization policies may lead to social advancement but they also may lead to anti-government feelings from the beneficiaries of such programmes, or even resentment and frustration. That is, politics may become less identified with race if modernization of the Malays is pursued without taking into account its consequences. One possible future consequence in this respect may be the erosion of the NF power base as presently existing in the electorate, caused either by population shifts from rural to urban settings or by political dissatisfaction or both.

Nonetheless, however, it is probably more plausible that the ultimate development of this possibility is not that class will transcend race, but rather that class conflict will emerge within the Malay racial framework. In contrast, intra-Chinese class conflict seems less likely, but this community will continue to feel aggrieved at the loss of opportunities in favour of the bumiputra in social programmes such as education. As for commerce, the Government's contention is that an expanding cake is providing more opportunity for the non-Malays as well as for the Malays. Tensions, however, have erupted over these issues as with the call by the Associated Chinese Chambers of Commerce and Industry (ACCCI), for review of the ICA, and its support and actions in the call for the establishment of an independent *Merdeka* University to cater for the students from Chinese schools.

Thus far, although tensions have arisen as a result of the implementation of the NEP, the National Front structure has not been unduly affected. Intra-communal class divisions are more apparent than real and have not resulted in serious anti-NF stances, although some Malays have been vocal enough in expressing their dissatisfaction with certain specific policy decisions. Support for parties other than UMNO has not meant support for a socialist grouping like the Parti Sosialis Rakyat Malaysia (PSRM); support has been significant for PAS but this concerns mainly rural voters, a subject we shall allude to below. This evidence suggests that, if support for UMNO diminishes, it may go to another Malay political party alternative. This means either that Malay politics will continue to be communal, or simply that the Malay vote will be split.

As for the non-Malay components in the NF, the continued

¹I am indebted to Lee Poh Ping for highlighting this point.

emphasis on bumiputra development in the NEP makes their position difficult. The opposition, essentially the DAP, has gained considerable non-Malay support because of the NEP and the seeming acceptance of the NF's non-Malay partners of UMNO's strong say in that policy.

It can therefore be accepted that increasing modernization of the Malays will lead to some changes in the power structure of the community, but these changes will not displace the concept of Malay political supremacy. Tensions may therefore be expected on racial and intra-racial lines. In short, although the racial paradigm in Malaysian politics will be more complex as a result of some increase in class conflict, this will not transcend race as the major political issue.

Because we may expect political issues in the country to be of key importance in the Malay community, we turn now to survey the political situation in the rural areas, where the majority of Malays are located. It is in this zone that the contest for Malay political supremacy *between* Malays will occur, and it is here that the results of modernization are the most discernible and significant.

V

Acutely aware that the bulk of its political support comes from the rural areas, the NF has concentrated its strategies in modernization on rural development programmes. Malaysia is perhaps fortunate that it does not spend most of its wealth on urban programmes, as is the practice in many other Third World countries. Paradoxically, however, the spreading of benefits to rural dwellers has also increased their awareness of their rights to make demands on the Government and to question the NF's priorities and programmes, a phenomenon described by one observer as 'creeping urbanism' (Guyot, 1969).

Since the pattern of electoral representation is weighted in favour of rural districts where the majority of Malays reside, UMNO's strength quite naturally comes from these areas. The livelihood of these rural inhabitants is largely subsistence and thus they also include the poor of the country as well as part of the backward sector of the economy. UMNO's or the NF's strategy since independence in 1957 has been to raise the living standards of the rural areas and generally to raise rural incomes to more decent levels. The implementation of this strategy has largely been through Government intervention and public sector participation.

No less a personage than the late Tun Abdul Razak (the former Prime Minister but who was then Deputy Prime Minister) was en-

trusted with the original portfolio for rural development (through the Ministry of National and Rural Development) and it was his personality and drive that enabled such a programme to be relatively successful (Ness, 1965). The quest for rural development also spawned many quasi-government agencies to carry out integrated agricultural schemes (for example, the Muda Agricultural Development Authority), to develop farmers' associations (the Farmers' Organization Authority), to encourage rural credit (the Agriculture Bank), to administer land settlement (the Federal Land Development Authority), to manage replanting (Rubber Industry Smallholders' Development Authority), to handle agricultural marketing (Federal Agricultural Marketing Authority), and to coordinate commodity matters (such as the National Padi and Rice Board), amongst others.

From the organizational angle, these agencies can be considered as the Government's answer to rural problems, and indeed since 1969, there has been a proliferation of such quasi-government bodies. The commitment to rural development goals was great enough to achieve 'physical output' success (that is, more roads, public halls and other physical infrastructure), but there were, nevertheless, political constraints. Many of these public agencies suffer from common problems such as duplication of tasks, lack of good managers, lack of skilled personnel, and restriction to civil service type procedures.

The Federal Land Development Authority (Felda) is one example. Established in 1956, Felda's operations include 'land clearing, planting of main crops, development of villages, selection and emplacement of settlers, management of projects, provision of credit, processing, marketing services, and facilitating social and community development' (Felda, n.d.). Up to April 1978, it had established 245 schemes growing rubber, oil palm, sugar-cane, cocoa and coffee totalling 1,098,980 acres and had settled 46,770 families (Felda, n.d.). Felda has also set up subsidiary companies to handle some of its operations.

Felda has been successful in its land programme and by and large settlers' incomes have also improved over pre-settlement subsistence levels. The average settler income is shown in Table 5.1. Although settlers' incomes in Felda schemes have improved on a national scale, it can also be seen from Table 5.1 that incomes became lower on the largest farms. The Felda settlement programme is also expensive, costing around M\$29,000 per family (Felda, n.d.). This is high, even though the cost is a 'package deal' that incorporates the construction of settler dwellings and other infrastructure. Another factor in the high costs to the Government of these schemes is the

TABLE 5.1
Average Settler Monthly Incomes
in Felda Schemes, 1977
(Figures in Malaysian Ringgit)

Size of Holdings (acres)	Oil Palm Settlers	Rubber Settlers
6	—	331.28
7	—	332.45
8	588.22	389.65
10	599.59	205.54
14	366.27	—

Source: (Felda, n.d.)

long period over which repayments from settlers extend. Like so many of the other rural development programmes, Felda's investment is quite heavy, and considerable Government subsidies are included.

But Felda settlers have also begun to assert themselves as they become more aware of their improved economic status. Settlers have not hesitated to appeal directly to the Prime Minister when problems have arisen which the Felda organization have failed to solve. Cognizant that they are also a constituency for the incumbent political regime, Felda settlers have begun to make demands on the Government. For example, although incomes have been good, this is largely the result of fortuitously good market prices. However, these prices can fluctuate considerably. Settlers have insisted that the Government subsidize them when incomes are low because of low crop prices. This is the 'creeping urbanism' trait that Guyot alludes to (Guyot, 1969).

The political awareness of Felda settlers is also manifest in the rest of the rural community. In 1974, farmers and other *kampung* folk staged a demonstration in Baling over low crop prices and over the inability of the Government to prevent hunger. This was a severe shock to the Government, which had complacently thought that the massive public investment in rural development meant that all would be well. Again, in early 1980, the Government was stunned by a demonstration in Alor Star over the payment of subsidy coupons. However, the Government's response to both these instances has been to regard them as having been incited by subversive elements and therefore a 'law and order' problem (Zakaria, 1978). Although there may be some basis for the subversive elements charge, it is too simplistic to regard these incidents just as law and order problems; the political nature of the demonstrations needs also to be taken seriously.

Another charge often made by critics is that the beneficiaries of rural development projects are really the (usually) Chinese contractors who construct the physical infrastructures. However, as the rural development programme is part of the New Economic Policy, this may well refute the charge that the NEP only assists the Malays. In any event, a strong defence to this charge is the fact that the end-benefit of the rural projects ultimately must be seen as helping the Malays and other rural dwellers.

Two other factors are also significant in considering the political situation in the rural areas. One is the position of the middlemen, often non-Malay (read Chinese) in the rural political economy. Not only do these middlemen perform certain functions which Government agencies, designed to replace them, have difficulty in fulfilling adequately (such as quickly provided loans without collateral security), but they also represent a political influence that the NF cannot easily remove.¹ Secondly, the emergence of so many bureaucratic agencies in the rural areas have obscured the vital links and relationships between the Government and the people. It is partly because of this, perhaps, that the January 1980 farmers' demonstration developed over the issue of the payment of the subsidies by the *Lembaga Padi dan Beras Negara* (National Padi and Rice Authority).

Government involvement in the rural areas has raised the expectations of the kampung Malays, just as is the case in urban programmes. Thus, in the 1980s and 1990s we may expect to see not a docile rural community but an increasingly politicized voting bloc developing as a result of the Government's modernization efforts. It is too early to assess the potential effect of this development on internal security and the Communist Party of Malaya's (CPM) efforts in the rural areas, but it seems highly unlikely that it will become serious as long as the Government's security organs are vigilant. In Sarawak (there does not appear to have been any major incident relating to farmers' issues in Sabah), communist influence among rural youth and farmers' organization is real enough, but this seems to have been contained by the special genre of 'people's war' conducted successfully by the State Government, led by the incumbent Chief Minister, Datuk Patinggi Haji Abdul Rahman Yaakub. (Note: Datuk Patinggi Rahman Yaakub retired as Chief Minister in early 1981.) Unlike the position in Peninsular Malaysia, however, rural political involvement in Sarawak has been largely a Chinese phenomenon in the 1970s.

¹ The highlight of the Malay/Chinese matrix in political trade-offs in the rural areas was the Aziz Ishak affair. For a fuller discussion, see Ness, 1965: 225 and Von Vorys, 1976: 171-83.

The activities of PAS, the major contender for support of the rural Malays, are of course a threat to the NF's rural modernization programmes as well as to its political following, but it is not, in the opinion of the writer, likely to make further inroads beyond those achieved by 1980.

VI

This rather cursory overview of the political structure in Malaysia, has focused on three selected areas, namely the political party power structure, the New Economic Policy and rural development strategies. It should be apparent that, to a large extent, the survival and success of the political party power structure, as embodied in the National Front, is based on the lack of appeal of the alternatives to such a coalition. Inasmuch as the NF is Malay-dominant, its strength and success hinges upon the implementation of the New Economic Policy, including its rural development strategies. Although the NF may be expected to ride through its problems in the 1980s, there will be cracks in the structure. Also, as modernization proceeds, social mobilization as defined by Deutsch (Deutsch, 1961) will take place, that is, we may expect Malay challenges to the Malay political regime. Thus, although communalism will remain a prime factor in understanding Malaysian politics, some appearance of class conflict will take place on an *intra*-racial basis ✓

6 The Social Structure

To write about the Malaysian social structure in a short chapter presents many difficulties. Malaysia is anything but a homogeneous society, being the home of numerous ethnic groups, each with their own sets of social mores and values. The most numerous groups are only part of the conglomeration. Thus to attempt to describe all the components of this complex structure is too massive a task. What will be attempted, therefore, is of more modest design. A selection will be made of what appear to be the most significant and influential components in the Malaysian social structure of the 1980s and 1990s, and on this a general review of the structure from a policy point of view will be based. To this end, particular attention will be paid to the Malay, Chinese and Indian components in the society, while other ethnic groups will be dealt with more briefly. Some of the smaller groups cannot be covered in any detail.

THE SOCIAL STRUCTURE: AN OVERVIEW

The Malaysian society is made up of a number of distinct ethnic groups, of which numerically the most important are the Malays, the Chinese and the Indians in Peninsular Malaysia, and the Ibans and the Kadazans in Sarawak and Sabah respectively. At the end of the 1970s, these five groups together comprised 95 per cent of the Malaysian population of 14 million people. The remaining 5 per cent include many ethnic groups, such as the aboriginal people, some people of mixed race, some Europeans, Ceylonese, Arabs and numerous others. There were also some ethnic minorities located in distinct parts of the country, such as the Portuguese in Malacca, the Thais in the northern states of the Peninsula, and the migrant population of Filipinos and Indonesians in Sabah and Sarawak.

In Peninsular Malaysia, the population of 12 million is complicated by the diversity of race and religion, being the home of most of the Malays, Chinese and Indians. Nevertheless, despite this diversity, there exists an overlying pattern of cohesion, an outline of a social

structure, that has been the common link to the diverse whole. This emerging common structure, limited though it was in scope, has been an important, if fragile, achievement in the building of a Malaysian national entity, and its consolidation and extension must be a major policy issue for the 1980s and 1990s. In particular, it must be recognized that the development of this unifying structure must be strengthened in certain areas of obvious weakness, areas such as the division between Peninsular Malaysia, and Sabah and Sarawak.

But this geographical division is by no means the only line of weakness or division. There are many that require attention in development policy during the remaining years of the twentieth century.

The ethnic divisions have received the greatest attention in the New Economic Policy, and these remain both important and sensitive. The depth of this division is illustrated by the relative rarity of mixed marriages between the main ethnic groups. But rapidly increasing in importance during the 1970s, and changing significantly in nature, has been the division between the urban and rural population. A fourth line of division that is also growing in significance and urgency is that between the poor and the rich.

Historically, the development of the plural society in Malaysia can be traced to the colonial era. In the early stages of the colonial period, Peninsular Malaysia was an area inhabited almost entirely by Malays and by some nomadic aboriginal people, with a few small settlements of other Asians, mainly Chinese and Indians.

Migration from Indonesia had been taking place slowly over the centuries, but this accelerated in the colonial period, with the opening up of new land for production of rice and subsistence crops. From about the middle of the nineteenth century, however, the British colonial administration began to encourage the recruitment of Chinese labour, particularly for work in mining tin. Not long after, the development of large-scale agriculture, first in the cultivation of sugar and later in rubber, plus the development of public works such as ports and railways, created further demand for labour. For these purposes, the recruitment of Indian labour was encouraged and supported.

These three waves of migration were thus distinct not only in racial composition, but in economic function and in location. The recent Indonesian migrants were concentrated in the low-lying areas of the West Coast, especially in Negri Sembilan, West Selangor and Krian, where rice could be grown. The Indians were concentrated in North Perak and Province Wellesley to begin with, but moved later into the rubber areas of Johore, Selangor, Perak and

elsewhere as estate production of that crop extended its coverage over the Peninsula. The Indians were also grouped in many of the growing towns, both as labourers in the Public Works Department, and as traders and shopkeepers and in the professions. The Chinese concentrated in the tin mining areas of Perak and Selangor, and also into the towns where they soon came to dominate much of the economic life.

These three separate migration flows have had two types of social effect. The Indonesians, because of their close cultural, social and religious affiliations with the Malays, assimilated relatively easily into Malay society. They took up small-scale agriculture, settled in villages, and intermarried with the local people, continuing, in effect, a process that had been going on in Malaysia for centuries. On the other hand, the Chinese and Indian migrants tended to remain ethnically and culturally distinct. Moreover, even when they wanted to integrate into Malay society, it was difficult, for to do so they had to abandon their traditional way of life, follow Malay custom, and adopt the Islamic religion. Only a very small number of Chinese and Indians were able to make this transition.

In Sabah and Sarawak the pattern was somewhat different for two reasons. First, migration from the other parts of Asia was relatively limited in historic times, and the proportion of Chinese, for instance, was small compared with the indigenous people, although they tended to dominate the commercial sectors. Secondly, the Malays are themselves a minority, and the Islamic faith is less well established. Inter-racial marriage between the Chinese and other non-indigenous with indigenous people was therefore less difficult than in Peninsular Malaysia, but the social and cultural divisions remain essentially distinct.

In addition, the Chinese, Malays and Indians were separated geographically. The Malays have been overwhelmingly *kampung* (rural/village) dwellers, while Chinese have generally been *bandar* (city and town) dwellers. On the other hand, the bulk of the Indians were concentrated on estates. In general the states on the East Coast of the Peninsula have remained predominantly Malay in population, whilst the West Coast States south of Kedah were more balanced in terms of racial composition, although the urban areas remain predominantly Chinese. This urban bias amongst the Chinese was also true in the East Coast States and in Sabah and Sarawak. According to the 1970 census, 58.5 per cent of the Chinese, 12.8 per cent of the Indians and 27.6 per cent of the Malays in Peninsular Malaysia lived in the urban areas, while in the rural areas 64 per cent were Malays, 26 per cent Chinese and 10 per cent Indians.

This urban/rural division by ethnic group has had some far reaching social and economic effects. For most of the present century, education facilities, water and electricity supplies, communications and most other amenities were developed to a very much higher level in the towns and cities than in the villages and smaller centres. This has meant that the opportunities for healthy growth and higher education have been far more readily available to the urban dwellers than to the kampung people, thus giving the majority of the Chinese a great advantage over the majority of the Malays. Serious efforts were made to remedy this during the 1960s and 1970s, with some notable success during the latter decade; but although the imbalance has been reduced, it has not been removed. The dispersed nature of rural life made it costly and difficult for the rural village dwellers to enjoy the same level of amenities, especially in the fields of health services and education, as can be made readily available in the larger urban centres. For this reason, the Government development policies were aimed not only at improving and extending the level of services in the rural areas, but also at redressing the racial imbalance between towns and villages.

Aside from the rural/urban differences, the Malays, the Chinese and the Indians have also tended to follow different modes of livelihood. The rural-based Malays have traditionally been engaged in small farming, fishing and rubber-tapping, although in the 1970s there was a rapidly increasing urban drift by young Malays in search of employment. As they were mostly poorly educated, the majority drifted into relatively unskilled and low-paid jobs in the police department, military service and in factories. A relatively small elite, comprising Malays who were wealthy or lucky enough to obtain tertiary education, secured well-paid positions as civil servants. On the other hand, the Chinese have been engaged mainly in the modern sectors of economy, such as banking, commerce and industry, mining and construction, while many English-educated Chinese are to be found in the medical and technical professions. A large proportion of the Indians, however, remain estate workers, but many urban Indians have become shopkeepers, businessmen, civil servants or professionals. Generally, the Chinese (because of their more remunerative economic pursuits) have been the more well-to-do, with a mean annual income about two and one-half times that of the average Malay and one and a half times that of the average Indian.

In Sarawak, the Iban are the largest indigenous group, and have been mostly engaged in dry rice cultivation and the small-scale production of rubber and pepper. They are found through the lowlands of Sarawak, living mostly in long-houses on the banks of

streams and rivers. A relatively large number of Iban became Christians, although they have a strong cultural identity of their own.

In Sabah, the largest indigenous ethnic group is the Kadazan, making up some 32 per cent of the state population. The second largest indigenous group is the Bajau (13 per cent) followed by the Murut (5 per cent). The social organization of these groups is based on traditional authority and norms which are passed down from one generation to another. Among the Kadazans and other indigenous ethnic groups, the family is an independent and separate economic unit, but each forms part of the loosely organized larger entity.

SOCIO-CULTURAL DIFFERENCES

Culturally, the Malays are Muslims, speak *Bahasa Melayu* (Malay), and maintain their own traditional customs and practices. The Chinese are mostly Buddhists, Confucians or Christians, speak a variety of Chinese dialects, and maintain traditional Chinese customs and practices. Some Chinese practices, such as the consumption of pork, the keeping of dogs in homes, and gambling, are extremely distasteful to Malays. The Indians are mostly Hindus, speak a number of Indian dialects, and maintain customs and practices of their own, some of which (such as the penchant for alcoholic drink) are also distasteful to Malays and ritually proscribed to them. The Pakistanis speak Urdu, but like the Malays they are Muslims. Some have intermarried with Malays.

Less than 1 per cent of registered marriages in Malaysia were interethnic in the 1970s, and the majority of these were between Malays and Indo-Pakistani Muslims. Religion is undoubtedly the biggest obstacle to interethnic marriage. As all Malays are Muslims, they believe that they should marry other Muslims. If they wish to marry outside their group, they should first convert the other party to the Islamic faith. The process of conversion is known as *masuk Islam* (to embrace Islam), although it is also often referred to as *masuk Melayu* (becoming a Malay), because Islam is identified as part of being a Malay. This process has been unacceptable to most Chinese and Indians, who are Buddhists, Taoists, Hindus or Christians. Because of the lack of interethnic marriages, different ethnic groups have kept their social systems intact.

The Malays

Generally the Malays live in rural areas. Characteristically they are peasants, although this was changing at an accelerating pace during the 1960s and 1970s.

Malay society has always been essentially a cooperative society, based on *gotong royong* (mutual help). *Gotong royong* is a form of cooperation that occurs both in social and economic spheres. This institution operates in rural areas especially to provide labour needed during padi planting and harvesting. People who offer help or service will expect the same service or help to be returned later on. This institution binds the villagers together. A Malay is supposed to help his neighbours when needed, whether it is for building a house or celebrating a wedding, and this help creates an obligation to reciprocate when need arises. However, with the spread of the cash economy and the practice of wage labour into Malay society, the institution of *gotong royong* has been weakened, especially in the urban areas. In the rural areas, however, it has not by any means died out.

Malay society is also sustained by the concept of *ummah* (Islamic religious community) which is the community of believers in the unity of Allah and in the messengership of his prophet, Muhammad. Within the community of *ummah*, each member is responsible to his fellow *ummah*. He is expected to help his fellow members at anytime, anywhere. This help is due not only in material goods but also in spiritual ones. When a neighbour dies, for example, the member of the *ummah* is expected to attend the funeral and to read a passage from the *Kuran*, so that his neighbour's soul will go to *syurga* (heaven). He is also expected to remind his neighbours of their religious duties if he finds that they have neglected them. Reminding others of the teachings of the faith is *fardu al-kifayah* (an obligation to members of the Muslim community). The Muslims believe that until they remind their neighbours who have neglected their religious duties, they themselves are considered responsible for their neighbours' transgressions.

The unity of a Malay community thus rests on the *adat resam* (social customs), which include the institution of *gotong royong*, and the concepts of *ummah* and *malu* (self-respect). These customs are observed in any Malay community, whether it is a transient or a permanent one. To avoid these obligations is to risk various social sanctions.

Feelings of solidarity arise among the Malays as a result of the observation of *gotong royong*, reinforced by the concept of *ummah*. The spirit of *ummah* particularly binds the villagers together culturally and socially. The Malays always emphasize their close relationships in terms of brotherhood in Islam.

All Malays in Malaysia are by definition Muslims. As Muslims, they believe in the supremacy of Allah (God), the ultimate source and cause of everything. They are expected to observe the tenets

of the Islamic faith, central to which is the practice of the 'five pillars of Islam'. The first is the confession: 'There is no God but Allah and Muhammad is his prophet'. The second is the performance of five daily prayers: one at dawn (*subuh* prayer), two in the afternoon (*zuhur* and *asar* prayers), one in the evening (*maghrib* prayer), and one at night (*isyak* prayer). The third pillar of Islam is fasting during the month of Ramadan (the ninth month of the Muslim lunar calendar). The fourth is the payment of *zakat* (alms), and the final tenet is the pilgrimage to Mecca. As a good Muslim, a Malay is expected to observe all these tenets, except the fifth which may be delayed until one has sufficient wealth. Failure to say any of the five daily prayers at the right time is deemed a slackening of faith. To eat during the day in the fasting month is to invite condemnation by fellow Muslims. In fact, a Muslim caught not fasting during Ramadan is liable to punishment by the religious authority, which may sometimes include imprisonment.

There are other basic rules of Islam which have become Malay *adat* and which should be observed daily. They include the avoidance of drinking anything alcoholic, eating pork or consuming meat not slaughtered by Muslims. With regard to the consumption of alcohol and pork, no exception is allowed, unless one is dying of hunger and thirst in a place where there is no water or food. Another important rule of Islam is the attendance at weekly Friday prayers. Every Muslim must stop work at the proper time and perform the collective prayer together with other members at the mosque.

Ideology in a Malay community is centred around the community of Islam and the Malaysian plural society. A Malay social group is defined by belief in these two facts. Islam, which manifests a comprehensive way of life, with religio-civil codes formulated and administered in the councils (Majlis), schools and *syariah* courts, has long played a vital role in the Malay way of life (Taib, 1972). From birth to death, Islam regulates all aspects of Malay life—economic, political and social. The ideology of Islam is further strengthened by the concept of *ummah*, which provides a continuity in the history of Islamic community. The Islamic view of the community was strengthened by the philosophical view that the nature of the state was dependent upon the ideas of the citizen. As Roff (1967) stated in his study, Malay nationalism in Malaysia has utilized the notion of the *ummah*. The concept of Islamic ideology is further nurtured by the Islamic religious movements, the *dakwah*.

However, there have been fundamental differences in the definition of ultimate values, in what is considered the ideal man, the

ideal life and the proper operation of society, even among the same ethnic group. On one hand, there are Malays who choose an Islamic ideology, while the rest may choose Malaysian ideology. The choice of ideology is strongly influenced by the individual's personal experience—his political choice, his exposure to urban/rural life and his social interactions. A man's experience at work and in his social life can have crucial consequences for his personal ideology with regards to broad economic and political views. His personal experience will contribute to the shaping of his identity.

The Malays generally have a bilateral kinship system, in which the individual affiliates more or less equally with both the maternal and paternal kins. However in parts of Negri Sembilan and Malacca, the matrilineal kinship system is still practised. Commonly referred to as *adat perpatih*, the system stresses the role of women in the kinship system, with inheritance and descent traced through the female line.

With Malays, the household unit is seldom confined to the nuclear family; it usually includes other close kin. Thus, a typical household will include a three-generational grouping, comprising parents, some children (including their spouses), and the grandchildren. Sometimes the household unit also includes siblings or parents of the wife or husband, the orphaned child of a sibling of either the husband or the wife, or some distant relative who has nowhere else to go.

In a Malay village, when boys or girls reach the age of five they are sent to a religious teacher in the village to learn to read the Kuran, and to be taught the fundamentals of Islam and praying procedures. At the age of six, children will attend elementary school to begin their formal education.

The Malay children are strictly disciplined in school. They are considered well-behaved when they are quiet and do not disturb their neighbours. In the olden days pupils were expected to memorize certain words in formula. Memorizing is regarded as synonymous with learning. This is a technique widely used by teachers, especially in the rural areas. Children are seldom encouraged to express themselves. Teachers are considered knowledgeable. Students are reluctant to question the teacher, and many do not encourage students to ask. Many teachers are satisfied with children's performance in class if only they are obedient.

While the rural Malay children attend secular school in the morning, they continue their religious instruction with the village religious teacher in the afternoon or at night. Indoctrination is a common technique used by religious teachers. As mentioned earlier, boys and girls learn by rote. They are supposed to accept what

the teachers say because the teachers are saying what had been said in the *kitab*.

Most traditional Malay parents evade certain types of question put forward by their children, especially those dealing with religion and sex. For instance when a Malay child asks a parent how one proves there is a God, the parent will not try to answer directly. Instead the child will be threatened with the fire of hell if he asks similar questions again. This type of training does not stimulate further scientific enquiry. Malay children are also warned of spirits and ghosts—that they should not walk in the dark or they may be snatched away by the spirit of darkness. This use of scary figures, such as spirits and ghosts, is contrary to the teaching of Islam.

In relationships between siblings, authority rests with the elder, but the older sibling is expected to be indulgent towards the younger brother or sister. When the younger sibling is old enough to understand, respect should be accorded to elder siblings, but until then the elder sibling must show great forbearance. The elders are always respected and listened to, even when they become adults. In a Malay family children are trained specifically to be obedient. Disobedient children are strictly disciplined by parents and elders. Children also have to learn to obey the village elders, including the village headman, teachers and religious people.

Outside the village sphere, the young Malay has to respect the district officer. In turn he demands respect from village people. The value system responsible for such attitudes derives from the feudal past of Malay society. In a feudal society, having power and authority means having absolute control of the people.

There has not been any major change in the structure of this value system, despite the modernization of Malaysia. Malay society still maintains its traditional structure, based on feudal attitudes. In this structure, Malays are by tradition reluctant to criticize the system. During their childhood, they are told stories and myths from Malay folklore in which the person of the *sultan* was sacred. He was vested with majesty at his installation. It was believed, though incorrectly, that any Malay who offended against the majesty of the *sultan* would suffer retribution from the impersonal force of outraged royal dignity (Gullick, 1958: 45).

Even in the modern world, Malays do not criticize the ruler. Many will not readily challenge any minister, member of parliament or government official, even one whom they believe to be corrupt. Even to hear criticism of their leaders will sometimes cause them to feel uncomfortable or irritated.

There are numerous other Malay customary attitudes within the family that are reflected in political and social attitudes in later

life. For example, one of the first principles instilled into Malay children, by example and by explicit injunction, is that happenings within his household or group of kin must not be divulged to outsiders, however harmless the happening may appear. Another is the authoritarian position of the parents, especially the father. The Malay parents exercise full authority over their children. They will normally make all the important decisions concerning their future; which school to attend, what vocation to follow, whom to marry. To Malay children, the father is king of the house. They must respect and obey the king. Just as district chiefs are required to pay homage to the ruler every year, so Malay children have to ask pardon once a year from their parents.

In school, the authoritarian regime is further reinforced. Malay children normally are taught to consider the teachers as figures of authority, and as kings of the institution, to be respected and obeyed. The result is that the children seldom have the freedom to make their own decisions, and the end-product is an obedient and law abiding citizen, but not an independently thinking one.

Once a Malay boy completes the education process and takes employment, he finds himself in a similar type of paradigm. As a new entrant to the institution in which he works, whether a government department or a private firm, nobody is going to listen to his views. If he is critical of the Government or the Prime Minister, for example, he will be considered a bad element and may even land in trouble. So many traditional features of Malay social, political and economic life are authoritarian in nature that obedience and respect for legitimate authority is a key factor in Malay social attitudes. This in turn impedes the external forces of socio-cultural change from which modification of the Malay social structure should stem, for these traditional attitudes are the agents of socialization in the Malay social structure, and it is these that act as mediators for change.

Another important feature of the Malay social value system is the concept of *malu* (self-respect). It is expected of every Malay that he should at all times maintain his own self-respect. Loss of *malu* is particularly associated with certain types of misbehaviour, such as disobeying parents. Malay society requires that its members should not break with any of their traditions. Losing their *malu* means that they are vulnerable to Western and Chinese influence, which must be avoided.

The Chinese

The majority of the Chinese in Malaysia are residents of cities or towns. There are several reasons for this. One is that Chinese

migrants have often had difficulty in getting title to land in Peninsular Malaysia, except in large or medium lots for estate type development, which only the wealthy ones could afford. There are considerable numbers of small Chinese agricultural lots in some areas, but these areas are not widespread. Secondly, during the Emergency period of nine years or so from 1948, practically every Chinese rural dweller was moved into one of the protected resettlement areas, most of which were either already towns, or became towns as a result. Thirdly, Chinese involvement in commerce and industry has always been prominent in Malaysia, and a considerable proportion of the Chinese population has always earned its livelihood in the towns and cities that are the centres of these activities. The result is that the Chinese in modern Malaysia are mostly found in the urban areas, and their social characteristics are adapted to town and city life.

There are, however, still many Chinese who work in the rural areas, in agriculture, trade, transport, timber and fishing. In agriculture they own and operate many estates, including numerous small ones, and they also act as contractors or share-farmers on some Malay smallholdings. There are a few areas, such as Changkat Jong in the state of Perak, and Tanjong Karang in the state of Selangor, where Chinese own and operate irrigated rice smallholdings. Also, most of the vegetables supplied to towns and cities are produced by Chinese, but in relation to the total Chinese population the number so engaged is quite small. Apart from these residential and occupational characteristics, and the fact that the Chinese community or their ancestors originated from China, this section of Malaysian society is remarkably diverse. Even though most Malaysian Chinese originated in the south-eastern province of China, they represent a number of different language groups, such as Cantonese, Hokkien, Teochiu, Hailam, and the various forms of Hakka. Though commonly referred to as 'dialects', they are in their spoken forms as mutually unintelligible as many European languages. Only the educated Chinese of different language groups can communicate with each other readily through the medium of Mandarin (or its simplified derivative Kwok Ue) or by the common written language. In some cases, especially in the 1970s, Malay has come to be used as the *lingua franca* between some Chinese.

Language has thus been an important divisive factor amongst the Chinese in Malaysia. It even determines to a significant extent their social and economic organization. In many towns, many Chinese have established clubs for their own dialect group, and these have been used not only for social purposes, but also as a base for economic, political and welfare activities. Certain occupations and

certain lines of business have tended to be associated with specific language groups.

The basis of Chinese social structure is the family system, but there are significant differences between the Chinese concept of family and that of the Malays. For the Chinese, the family group tends to be larger, being sometimes better described as an extended family. Within this group, respect and consideration for ancestors and elders is strongly emphasized, and although this implies obedience in many matters, including often the choice of marriage partners, it above all instills a sense of responsibility for family members, and in particular for parents and elders. It is quite common for the parents and several children of a family to work and save together to enable the brightest member to have the best education and to qualify for a good job. Also, even where the relationship is quite remote, a Chinese businessman will give special opportunities to young kinsmen to take employment in his business, to learn the trade, and to advance to positions of responsibility. Normally, the young Chinese will respond in accordance with his upbringing with respect, loyalty and hard work. Initiative, within the scope of his responsibilities, is encouraged rather than suppressed. This type of working relationship is advantageous both to the employer and employee, but is heavily dependent on the common cultural and linguistic background. This is one of the reasons why Chinese in commerce and industry have found it more difficult to employ Malays, despite the political desirability of doing so.

However, there are also important common characteristics that transcend the family and language groups, and apply to almost all the Chinese in Malaysia.

One common feature, and one that is of great importance historically, is their origin from recent waves of migrants. Migration of this voluntary kind is a very selective process, for the more conservative and less adventurous people stay at home, and it is the more vigorous, independent and enterprising that migrate. Secondly, the Chinese migrant to Malaysia was nearly always motivated with the purpose of acquiring wealth, and at least in the first instance, of returning with it to China as soon as possible. He therefore came not only with a strong will to work and earn money, but also to accumulate it by saving. Finally, in order to have some hope of making his fortune before he was too old to take it back and enjoy it, risk-taking in investment, and even gambling, were seen as attractive propositions by many. In this way, the Chinese migrants to Malaysia tended to have certain characteristics of initiative, aptitude for hard work, strong motivation, and thrift (except, in some cases, where gambling was concerned). These characteristics served

them well as the development of the country opened up industrial, commercial and mining opportunities—especially when they had small beginnings that failed to attract the large European companies that were virtually the only other major source of combined capital and enterprise available.

In this way the Chinese migrants and their descendants cut out for themselves a unique position, in which they have come to be a dominant factor in almost every aspect of the Malaysian economy, ranging from rural market gardening right up to large industrial concerns. In one way or another, they are involved in almost every aspect of commercial agriculture and fishing. In urban areas they own or operate most of the trade and commerce, retail and wholesale outlets, and private sector banking. The capital market is largely operated by Chinese, and they are the largest employers, and suppliers, of wage labour outside the government. In the rural areas as well as in the towns, the Chinese role as middlemen places them in an economically strategic position. In all these ways, the Chinese play a decisive role in the economic life of the whole Malaysian community.

Apart from division by dialect groups, the Malaysian Chinese are also divided into two main streams, namely the Straits Chinese and the more recent immigrants. The former are descendants from earlier but smaller waves of Chinese immigration, whose ancestors settled mainly in the former British Straits Settlements before the nineteenth century and who have absorbed much of the local Malay culture. The latter, on the other hand, are descended from more recent migrants of the nineteenth and twentieth centuries; these are larger in number and form the main bulk of the Malaysian Chinese population in the latter half of the twentieth century.

In Penang and Malacca, the earlier Chinese migrants are often known as the *Babas*. They are particularly noted for their own sub-culture, which differs from that of the more recently arrived Chinese ethnic groups. However, while incorporating a great part of the Malay cultural values, language and mannerism, the *Babas* still maintain a strong adherence to Chinese religion and ancestor worship. However, the number of the *Babas* is decreasing with every generation. This is due to the fact that every new generation of the *Babas* is brought up and educated in a manner similar to that of the recently arrived Chinese. Thus, through the socialization of Chinese culture, by the 1970s the younger generation of the *Babas* were becoming more 'Chinese' in outlook and behaviour than their parents were.

Traditional Chinese social structure places emphasis on kinship, and many economic undertakings and occupational arrangements are based on such relationships. Thus households may consist of

multi-generational members, up to at least three, if not more. But in the 1970s such traditional structures were being eroded amongst many of the younger Chinese, with the increase in the mobility of the work force and rapid urbanization.

Despite the splitting of family structures into various independent economic units, a strong value is still attached to the Chinese kinship network. This can be seen in the ancestral worship of the Chinese and also in the avoidance of marriage between people having the same family name, even where there are no immediate kinship connections.

Belief systems among the Chinese vary considerably, but on the whole they subscribe either to Confucianism, Buddhism or Taoism, or a mixture of these. There are also some Chinese who are Christians. But whatever doctrinal adherence a Chinese chooses, there remains for most a common attitude of respect and responsibility towards ancestors, and a belief in their ability to intercede on behalf of the dutiful family. This is symbolized by the family ancestral altar in many Chinese homes. Beliefs in different kinds of spirits also exist and each dialect group has its own sets of important spirit entities.

In terms of formal structure, the Chinese religious systems are not centralized under one single authoritative body. Thus there are temples and places of worship with loose membership of worshippers and devotees who are also members of some other temples as well. Another feature of Chinese belief system is the adoption of alien local deities and the transformation of traditional Chinese deity into the local context. Thus the Goddess Kuan Yin became known in different versions in the belief system of various dialect groups of the South-East Asian Chinese.

Despite the various dialect groups amongst Malaysian Chinese, there is a common front regarding many Chinese values. Thus the concept of 'face' is often very important in social interaction among the more traditional Chinese. Hence 'to lose face' becomes synonymous with dishonour in the eyes of the community, and interpersonal relationships are guarded so as not to cause loss of face of the other party. It is partly around this concept that honesty, trustworthiness and loyalty revolve, to which the Chinese attach important sociological values.

Apart from the concept of 'face', the Chinese community on the whole upholds certain values which they consider as crucial to their cultural survival. Thus there is a common emphasis on the importance of the Chinese language: great value is attached to Chinese family organization, and to belonging to a Chinese association of some kind.

The Indians

The social structure of the Indian and Sri Lankan community is divided into various sub-communities. Thus there are Indian communities which consist mainly of people who can trace ancestry to a single village or region in India, and there are groupings of people with similar linguistic and religious affiliations, such as the Punjabi or the Sikhs, and there are various groups of Sri Lankan origin.

The general pattern of social groupings among the Indian community in Malaysia varies according to the different areas of India from which the earlier immigrants originate.

In urban areas, Indian and Sri Lankan sub-communities are sometimes organized along occupational lines, or in accordance with religious affiliation to certain temples and places of worship. Thus Hindu temples and Sikh places of worship are not only venues for religious purposes, but also centres of social interaction and communal activities.

The vast majority of the Indians in Malaysia are Tamils, Malayalis and Telugus. Accordingly the customs and practices of Dravidian India predominate, with emphasis on Sivaism and the worship of the female deity in its various forms.

The majority of Malaysian Indians are estate workers and live in rural areas. This gives rise to a special pattern of settlement in which most estates employ groups of Indians who come from the same village or region in India, or who at least are of a similar linguistic background. Thus through the *Kangani* recruitment method, Indian settlers in a typical estate will often come from the same village or district, and they will be housed in close proximity to each other in groups within the estate. This kind of settlement pattern has isolated many Indian settlers to a considerable extent from the rest of Malaysian society, and according to a study done by Arasaratnam 'their concentration in small groups in their housing settlements, led to the practice of Hindu forms and ceremonies in a manner approximating as closely as possible to that in India' (Arasaratnam, 1970: 162).

While rural Indians are involved mainly in the plantation economy, urban Indians are mostly of distinct groups, including many Sri Lankans, and are involved in many occupations ranging from traders and businessmen, retailers and wholesalers, professions such as doctors, administrators and teachers right down to manual workers and labourers. Some Indians known as Chettiyars, are noted for their money-lending business.

Many Indians in Malaysia still maintain a living tie with their village of origin through an elaborate network of kin relationships. A typical example is where wives and offspring live in India while

the husbands work and live in Malaysia and maintain a Malaysian identity. There is a constant two-way movement of people of Indian origin between Malaysia and India, and this enhances the Indian identity among Malaysian Indians. In fact it is the ambition of many such Indians eventually to retire in India after completing their working years in Malaysia.

Another feature of Indian life has been the cultural value attached to the caste system. However, while a typical village community in India tends to attach great importance to caste categories in interpersonal relationships, the consciousness of caste among Indians in Malaysia tends to be very much eroded, especially among the so-called lower caste groups. While caste consciousness in India tends to be perpetuated by numerous existing economic, political and social structures, it has little meaning in a Malaysian setting where immigrant Indians can actually disregard caste without fear of social or economic repercussions from the rest of the community. However, despite the general irrelevance of caste, some respect for the status of the upper castes is still maintained in specific ritual proceedings. Thus people of Brahmanical status are still sought to perform certain ritual services. The suppressed status of the lower castes tends to be very much eroded, and many lower caste Malaysian Indians have been able to attain certain professional and economic prominence, so that they can afford to disregard their caste, or even to manipulate the situation so that they can climb to a higher caste status. But on the whole, little emphasis is given to caste in everyday affairs of Malaysian Indians.

An interesting feature of the Indian community in Malaysia is that there is quite a considerable number of Indians who are Muslims. These are commonly known as Indian Muslims. The fact that they are Muslims has given them special place in their relationship with the Malays. Hence many Indian Muslims have Malay spouses and the resulting offspring can choose either to be Malays or to remain Indians, depending on the cultural tradition in which they are being socialized.

Although the view of India held by the younger generation of Indians tends to differ from that of their immigrant forefathers, there is still a common consciousness of their ethnic origin and background. This is demonstrated in the desire to uphold their language, their culture and their religion.

DEVELOPMENT AND CHANGE

Malaysian society, like any other, is constantly undergoing adjustment and change. The Government of Malaysia has set up numerous

agencies and institutions to foster and direct economic and structural change in the country. However, the processes of change are slower in the rural areas, compared with the towns and the cities.

Education is one of the more important factors in the social and economic development of the country and, as such, has been emphasized in government planning. However, before independence, most of the educational institutions which prepared young people with the skills and knowledge most necessary to support the technological and economic basis of a modern nation were confined to the cities and larger towns. As Malays and other Bumiputras have always been mainly rural people, their children have mainly attended rural schools, whilst Indians mainly attended schools on the estates where they reside. The Chinese, on the other hand, being by far the majority of the urban population, had a great advantage in the numbers able to attend the more advanced urban schools.

After independence, the Malaysian Government has sought to redress this imbalance of opportunity, but it has been necessarily a slow and difficult business, which was by no means complete by the end of the 1970s. Three main approaches to the problem have been attempted:

1. Secondary schools in the major towns have been expanded and equipped on a considerable scale with boarding facilities, enabling them to accommodate substantial numbers of rural students.

2. A new policy was introduced to assist a larger proportion of vernacular trained students to achieve an adequate standard of English. To this end, special 'remove' classes were provided for students moving to a secondary school from a vernacular school. The 'remove' students were taught English for a year before resuming the normal school curriculum.

3. A considerable number of Malay language secondary schools were established in the rural areas.

These measures together have greatly increased the opportunities for rural Malays and other rural people to obtain a full secondary education. Together with an increase in government sponsored scholarships at secondary and tertiary level, the education imbalance was considerably reduced by the end of the 1970s. However, much remains to be achieved in this direction, partially because the late start in providing reasonable access to higher education for the rural people will necessarily take a generation or two to catch up, and partly because, whatever a government may do, higher education will always be more difficult to provide for rural people than for those concentrated in towns.

Another closely related problem is the imbalance in the racial composition of the urban population. This is particularly notice-

able in the West Coast cities and towns of Peninsular Malaysia, but it also extends to some extent to the East Coast of the Peninsular, and to Sabah and Sarawak. The historical origins of this imbalance have been discussed earlier in the chapter. Here we are concerned with social change, and the policy issues it raises for the 1980s and the 1990s.

One of the elements of Government policy in the 1970s has been that the racial imbalance needs to be redressed both in the rural areas and in the cities. In one direction, there has begun to be signs of a considerable success for this policy, through the effects of industrialization, and of Government employment policies. This has led to a very rapid increase in rural-urban migration of Malays in particular, and as a result, the Bumiputra proportion of the urban population increased considerably. However, problems have arisen in this process that will need further consideration as policy issues for the 1980s and 1990s.

The first problem is that whilst the Bumiputra proportion of the towns and cities has been increasing quite rapidly, the non-Bumiputra proportion of the rural population has increased only slowly. This end of the imbalance problem, therefore, remains unsolved. One of the factors contributing to this, which will need further consideration during the 1980s if Government policies in the matter are to be fulfilled, is the problem of land acquisition and ownership, which remains difficult for the poorest non-Bumiputra urban dwellers who are expected to become the main source of any large urban-rural migration.

The second problem is that the rural-urban migration of the Malays and other Bumiputras has tended to be concentrated very much in the youth of the kampungs, leaving the middle-aged, the old and the very young behind. This in turn has caused two difficulties. One, largely an economic problem, is the reduction in the labour resources of the kampungs most affected, particularly that part of the labour force upon which the harder tasks would normally fall. This has caused some disruption of production—an effect already showing up in Malaysia's smallholder rubber production in the late 1970s. The other, mainly a social problem, is the effect on the lifestyle of the young Malays, male and female, when removed from the guidance and restraint of the older members of their social groups. The effect of this has yet to be seen, for it will probably be productive of relatively slow but quite fundamental change in the political and social, as well as economic, attitudes of a growing section of the Malay population.

Another important development in the Malaysian social structure, which closely ties in with the above, follows from the growth

of certain Islamic movements that have become increasingly strong in Malaysia during the 1970s. Amongst these, the so-called *dakwah* movement deserves special attention. This movement includes a number of separate *dakwah* (missionary) groups, such as the Darul Arqam, Tabligh, and the Angkatan Belia Islam Malaysia, who advocate the propagation of Islam as an ideology based on the criteria that there should be no law but Islamic law, that there should be no state but the Islamic state, and that there should be no guide but the Kuran.

Many Malay leaders sympathize with these groups and feel that the fundamental teachings of Islam have been threatened by non-Muslim elements. They resent the proportion of the wealth of the country that accrues to the foreigners and the Chinese, and the belief that the Government is forced to share its political power with non-Muslims. For these reasons they are suspicious of Westerners and Chinese, and they cite historical incidents in support of these views.

The *dakwah* groups strongly advocate the enforcement of the fundamentals of Islam in all matters, and warn against the encroachment of other cultures, especially the Western and other non-Muslim ways that have influenced many urban Malays. These movements, in their present strong form, are relatively new, and have not yet gained very much attention from the non-Malays, and their influence is less marked outside the urban areas. Nevertheless, they present one of the more controversial forces of change operating within the complex structure of Malaysian society.

One of the striking features of the Malaysian social structure, discussed at many points in this chapter, is the co-existence of several distinct ethnic groups practising different cultures. There is in this a natural tendency towards some degree of ethnic polarization. It has thus become one of the important tasks of the independent Government of Malaysia to dissipate this polarization and to integrate all the component groups, at least in certain vital respects, into one common culture. This is a delicate and difficult task, bearing in mind the complexity of the Malaysian social structure, and the fact that the basis of such integration will have to satisfy all the main ethnic groups.

The Malays demand that the national culture should be indigenously based, meaning that its core should be Malay culture. Others insist that elements from the other Bumiputra cultures, and from the migrant cultures of the Chinese and the Indians, must also appear in the national culture. This has, naturally, been the source of some strong differences.

However, by the end of the 1970s, it was more or less settled

that the core of the National Malaysian culture must be based generally on the tradition of the indigenous people of the Greater Malayo-Polynesian region. It has been stressed that the Malay culture, which includes its language, customs and traditions, was predominant in this part of the world until the arrival of the Western colonial influences. In fact, the Malay language was the lingua franca of this whole region, particularly among the maritime traders. It was only during the colonial period that the immigration of the Chinese and Indians in large numbers led to the development of cultural pluralism.

Many steps have been taken since independence to foster the growth of a unifying Malaysian cultural component. Central to this has been the adoption of Malay as the official language, and the encouragement of its spread in education and in general communication within the nation. This has already been noticeably effective to a degree, and further progress should continue throughout the 1980s and 1990s as more cohorts of young non-Malay citizens with good educational qualifications in Malay enter adult life.

Other measures have also been taken, of which only a few can be outlined here. One, of the greatest importance, is the New Economic Policy, which by seeking to redress the economic imbalance between Malays and other races, and to reduce the identification of economic function with race, aims to remove the root cause of much of the resentment felt by Malays at their relatively lower economic status in their homeland. Whilst this in turn has caused some resentment amongst Chinese, who feel their own progress being retarded by this policy, the long-term prospects should show improvement if the policy can be made successful in all its aims, which include reduction of poverty irrespective of race, and the idea that Malaysia's wealth should enable the more rapid progress of the backward groups, whilst allowing for some reasonable economic improvement for the other groups at the same time. In this respect, Malaysia's good fortune and good management in economic matters is an encouraging feature. However, downturns in the world economy, rising local consumption of oil-based fuels, and the apparently approaching depletion of Malaysia's own oil reserves, will need to be offset by effective conversion to other forms of energy (such as gas), and continuing rapid development of other growth engines through effective resource use, new exploration, and the development of a more advanced industrial base. If this is not done, the partial and biased fulfilment of NEP objectives could end up being divisive rather than integrative.

Another measure is the encouragement of various art and cultural forms from all parts of the social structure. The co-existence, on

an equal footing, of activities such as drama, dancing, music and painting from each ethnic component is a quiet but steady influence towards integration. Sport, with facilities for participation by all ethnic groups on the basis of skill and performance, and the lavish provision for large spectator crowds, television coverage and international engagements of high quality, all have a strong unifying effect. These, and many other less striking measures, given sustained support by Government and people through the 1980s and 1990s, should have a cumulative and favourable effect on the development of national unity.

7 The Economic Structure

THE structure of the Malaysian economy is unusual, and has been an important contributor to the success of Malaysia's economic development over the 1960s and 1970s. The structure has, moreover, been adapting rapidly during that period in a most interesting manner.

The main parameters of that structure are readily identifiable from what has been presented in the first chapters of this book.

First, there is a rich endowment with natural resources, some of which were recognized and exploited more than a century ago. This produced an export-oriented economy based on primary production, that provided Malaysia with a sound basis for further development and expansion. Malaysia by the 1950s had a level of administration, technology, physical and commercial infrastructure, and a world trading position that was considerably in advance of most other countries in the South-East Asian region. It was particularly strong in tree crop technology, and it had very large reserves of agricultural land suited to such crops.

Secondly, Malaysia has built on that base an efficient superstructure of tertiary and secondary industry, which has provided the background for initiative and enterprise in the exploration and development of other resources such as iron ore, bauxite and petroleum, and the extension of its agriculture into new crops such as oil palm, tea, pineapples, pepper, coffee and cocoa, with considerable success.

Thirdly, as is clear from Chapter 2, the Malaysian economic structure has a set of significant geographical parameters. One of particular importance is the rural-urban differentiation, with a very high degree of sophistication both in the manner of living and in the quality of services available in the main urban centres. Another is the division between east and west Peninsular Malaysia, with modern development heavily concentrated west of the Main Ranges that divides the country from north to south; the sharpness of this division has been reduced during the 1960s and 1970s with the ex-

tension of considerable development effort to the East Coast States, but it was still significant at the end of the 1970s. Even more significant is the difference between Peninsular Malaysia and the states of Sabah and Sarawak, where modernization and development commenced later and more slowly, before their integration into the Malaysian federation, and where petroleum, timber and abundant agricultural land combine with a relatively small population possessing as yet a lower level of skills and infrastructure.

Fourthly, there is the multi-racial character of the Malaysian society, and the historically based identification of race with economic function. There is not only a notable degree of Chinese predominance in tin mining, Indian predominance in estate labour and Bumiputra predominance in rice production, but there is also the sharp division in control and ownership of much of the advanced and most modern sectors of the economy, in which the Bumiputra have an expanding, but still disproportionately small share.

Finally, and of increasing importance as average incomes rise, is the distinction in the distribution of wealth. There still remain in Malaysia large groups which enjoy little of the prosperity that the expanding economy has made possible, and this is becoming increasingly a matter of public concern. It is a particularly important feature of the economic structure, because poverty, also, is by no means evenly distributed between the racial groups, the politically dominant Bumiputra being overwhelmingly the most affected.

The consequence of these structural features is that Malaysia enters the 1980s with a relatively sophisticated economy, exceptionally open by world standards, with a number of entrenched problems that transcend economics and reach into the fields of sociology, politics, religion and race.

* * *

The openness of the Malaysian economy has meant that the share of exports and imports in the total economic activity of the country has been particularly high, and this in turn has made it especially vulnerable to the influence of changes in economic conditions in other parts of the world. During the first half of the twentieth century, Malaysia was almost wholly dependent upon rubber and tin for its export earnings, and changes in the world demand for one or both these commodities had an exaggerated effect on all Malaysian economic activity. Since then, the heavy dependence on rubber and tin has decreased, with the diversification of the export pattern to include palm oil, timber, petroleum and manufactures, coupled with the increasing importance of

secondary and tertiary industry for the internal markets. This change is amply illustrated in the statistics of Malaysian foreign trade (see Chapter 9) which show not only the rapid growth in the relative importance of exports of commodities other than rubber and tin, but also the change in the import pattern from a predominance of consumer goods to a predominance of intermediate and investment goods.

This rapid and important structural change is built not only on the natural resource base of the economy, but also on the special skills that provide the base for the high agricultural technology in primary industry and the growing sophistication of the secondary and tertiary industries. With this change, the absolute predominance of the primary sector and its vulnerability to external influences has been reduced. But it has not been removed, and it appears likely that the primary industries, agriculture and mining, will continue to be the mainstay of the economy for a considerable time to come.

Another feature of the open Malaysian economy has been the extent of foreign participation in the modern sectors. This is most noticeable in the ownership of corporate assets. Despite Government intervention to foster Malaysian, and particularly Bumiputra participation during the 1970s, 46 per cent of the assets of the corporate sector were still directly or indirectly foreign owned in 1978.

* * *

There are two further structural features of the internal economy that deserve mention at this stage. First, the rate of savings has been very high for a developing country. At the end of the 1970s, national savings had reached 28 per cent of the GNP. There were at least four major factors contributing to this:

1. Income distribution is very uneven and favours the relatively few rich, who include entrepreneurs and owners of capital, and who have high individual saving rates.

2. The Chinese community, who dominate the productive modern sector, have attitudes which encourage low rates of consumption and high rates of saving for self-financed investment.

3. Malaysia has a relatively advanced public social security system, involving long-term forced saving for a large proportion of the wage and salary earning population.

4. A high rate of saving by the corporate sector, which has ploughed back a substantial portion of its profits in new investments.

The second feature is the high rate of public consumption in the Malaysian economy. At the end of the 1970s, public consumption was absorbing about a fifth of the gross national income. Chapter 14 describes this in more detail.

STRUCTURAL CHANGES IN GNP

Table 7.1 gives some idea of the structural changes that have taken place in the industrial composition of the Malaysian GNP during the 1960s and 1970s. Agriculture has declined in relative importance at a fairly steady rate, but at the end of the 1970s was still the largest contributor to the national product. The mining sector suffered a decline in the mid-1970s, but at the end of the decade, due primarily to increased oil production and escalating prices, had largely recovered its relative position by 1980.

Manufacturing, however, was clearly the leading sector during the 1970s, increasing its contribution (at 1970 prices) threefold, to become second only to agriculture as the largest sector. The development of this rapidly expanding sector is discussed in detail in Chapter 12. All the other defined sectors increased their contributions absolutely by considerable amounts, led by public administration and defence.

THE PUBLIC SECTOR

The Public sector in the Malaysian economy is of crucial importance, not only because of its considerable size and the direct employment that it provides, but at least equally because of the strategic effects of its intervention in the economic life of the nation. Some aspects of this are described in the other chapters. In particular, Chapter 13 deals with Monetary Policy and Banking, and Chapter 14 with Public Finance. However, the whole scale and intent of Government intervention has changed considerably since Independence; particularly since the 1969 riots convinced the Government of the urgency of certain major structural changes required in the Malaysian economy and society.

During the 1950s and most of the 1960s, the role of the Government in industry and commerce was primarily that of creating a suitable environment for expansion of private enterprise, through the provision of infrastructure and an atmosphere of economic stability. Direct involvement in productive economic activity was mainly confined to services such as transport, banking, communications and the like. However, as a result of the New Economic Policy, the 1970s saw a radical change of attitude in this respect.

TABLE 7.1
Gross Domestic Product by Industry of Origin, 1960-1980
(\$ million)

	1960 ¹		1965 ¹		1970 ²		1975 ²		1980 ² (estimated)	
	Value	Share of GDP (%)	Value	Share of GDP (%)	Value	Share of GDP (%)	Value	Share of GDP (%)	Value	Share of GDP (%)
Agriculture	1,976	37.9	2,066	31.5	3,432	32.1	4,563	29.8	6,106	26.5
Mining and quarrying	306	5.9	587	9.0	613	5.7	612	4.0	806	3.5
Manufacturing	453	8.7	682	10.4	1,307	12.2	2,197	14.4	3,872	16.8
Construction	158	3.0	269	4.1	481	4.5	711	4.6	1,087	4.7
Electricity, water and sanitary services	70	1.3	150	2.3	245	2.3	401	2.6	622	2.7
Transport, storage & communication	189	3.6	284	4.3	606	5.7	1,098	7.2	1,636	7.1
Wholesale and retail trade	817	15.7	1,004	15.3	1,432	13.3	2,086	13.6	3,122	13.5
Ownership of dwellings, banking, insurance and real estate	316	6.1	396	6.0	836	7.8	1,109	7.2	1,658	7.2
Public administration and defence	339	6.5	404	6.2	794	7.4	1,199	7.8	1,896	8.2
Other services	596	11.4	710	10.8	874	8.2	1,237	8.1	1,947	8.4
GDP at factor cost	5,220		6,552		10,708		15,315		23,073	

Sources: Malaysia, 1965: 37; Malaysia, 1971: 31; Malaysia 1976b: 58.

¹ For Peninsular Malaysia.

² In 1970 prices.

Government measures to stimulate and encourage private industry and commerce, including private foreign investment, have continued through the updating of the Pioneer Industries legislation in the Investment Incentive Act of 1968, and the operation of Government institutions such as FIDA. However, during the 1970s, direct Government participation in the financing of commercial and industrial enterprises has become very significant.

This has taken a number of forms. First, and perhaps most important, have been the establishment of quasi-Government corporations such as PERNAS, MARA and UDA, which have increasingly entered into the commercial and industrial fields that had previously been the sole preserve of private enterprise. Secondly, there have been the expansion and proliferation of agencies empowered to invest Government funds, either as equity capital, or as loan finance, in joint ventures with private enterprise in trust for the Bumiputra sector. During the 1970s, this form of involvement expanded considerably on behalf of the Bumiputra, and during the 1990s it must be expected to increase if the target of 30 per cent Bumiputra ownership of commerce and industry is to be approached. Thirdly, there has been a continuation and expansion of direct Government involvement in agriculture, both through land settlement schemes operated by institutions such as FELDA, FELGRA, RISDA and

TABLE 7.2
Malaysia: Revised Public Development Expenditure, 1976-1980
(\$ million)

	<i>Total</i>	<i>Percentage Share</i>
<i>Economic</i>	21,501.37	67.0
Agricultural and rural development	7,585.23	23.6
Mineral resources development	20.00	0.1
Commerce and industry	3,205.49	10.0
Feasibility study	91.58	0.3
Transportation	5,017.30	15.7
Communication	2,138.27	6.6
Utilities	3,443.50	10.7
<i>Social</i>	5,561.00	17.4
Education and training	2,116.23	6.7
Health and population health	529.72	1.6
Social and community services	2,915.05	9.1
<i>General Administration</i>	1,229.31	3.8
<i>Security</i>	3,784.00	11.8
Total	32,075.68	100.0

Source: Malaysia, 1979c: 243-5.

the State Development Corporations, and through the increasing participation of Government institutions in the provision of agricultural inputs and services.

Table 7.2 shows the distribution of Government development expenditure in the second half of the 1970s, with the heavy concentration on agriculture and rural development, transportation (which here includes road construction), utilities, and commerce and industry. This pattern is associated with the direct Government intervention plans to restructure the economy in accordance with the New Economic Policy, which is also the reason for the size of the commitment, which increased from \$7,250 million in the Second Malaysia Plan to \$32,076 million in the Mid-Term Review of the Third Malaysia Plan.

THE EXPORT SECTOR

The nature and performance of the export sector of the Malaysian economy is discussed in detail in Chapter 9, but the structural effects of the export trade are fundamental to the Malaysian economy and have a key place here.

Table 7.3 shows clearly the extent to which the Malaysian economy diversified its export base during the 1960s and 1970s, and the manner in which it was done. The agricultural sector reduced its export contribution from two-thirds to one-half, but remained by far the largest contributor overall. Within that sector, some of the changes were quite dramatic. Rubber, from being the only major agricultural export and the source of 55 per cent of total Malaysian exports of all kinds in 1960, contributed only 21 per cent in 1978. Timber and palm oil rose from being quite minor contributors in 1960, to very major roles in 1978.

In other sectors, the major structural changes were in the rapid increase in petroleum exports and in the export of manufactures. The latter is of special significance not only because of the magnitude of its role in the late 1970s, but because of its effects on the employment pattern in Malaysia. Most of the new manufacturing enterprises operating on the export market are labour intensive and employ relatively unskilled labour. An example of this is the electrical machinery and parts industry, which was insignificant in 1970, but which had risen to be the source of 9.2 per cent of Malaysia's total exports by 1978.

The structural effects of these component parts in the changed pattern of exports varied considerably. The changes in agriculture proper, comprising the great expansion of palm oil production together with useful increases in pepper and cocoa, are of direct

benefit to many people in the rural areas, especially through the Government's extensive smallholder settlement schemes. They are widespread throughout Peninsular Malaysia and extend also to Sabah and Sarawak. As such, they serve a unifying purpose in the Malaysian economy, as well as being supportive of at least part of the objectives of the New Economic Policy. However, timber is less effective in both these respects, partly because it tends to be more capital intensive, and partly because timber exports came mainly from Sabah and Sarawak during the late 1970s.

In the case of petroleum, the benefits to Malaysia are very considerable indeed, but they derive almost entirely from the benefits to the Malaysian balance of payments, and from the very considerable revenues accruing to the Government from petroleum income tax and export duty. This is discussed in detail in Chapter 13. Another feature of the petroleum exports is that they have, throughout most of the 1970s, come mainly from the offshore areas of Sabah and Sarawak. This, however, will change during the 1980s, as production in the oilfields of Sabah and Sarawak begins to fall, and that in the Trengganu fields increases.

Finally, with manufactures, the expansion in low wage, relatively unskilled labour has assisted considerably in advancing some parts of the New Economic Policy objectives, through the urbanization of a large number of rural Malay youth, and bringing them effectively into the wage economy at the same time. On the other hand, it has some disadvantages also, because the wages earned are relatively low and though acceptable to the single person may be below the poverty line for persons with dependents, and there are several other social consequences that may be unwelcome; these are discussed in other chapters.

PRICE CHANGES

During the 1960s, the price levels and the cost of living in Malaysia remained remarkably stable by world standards. Between 1960 and 1971, consumer prices in Peninsular Malaysia rose on average by less than 1 per cent per annum. Several factors contributed to this stability (Table 7.4).

During the 1960s, import prices changed very little, despite price increases in Europe and the United States, largely because Malaysian imports shifted towards the lower cost producers in East Asia. This produced relative stability in many consumer goods, from cars to food items. Meanwhile prices of Malaysian exports had tended to decline, producing some restraint on internal demand, while the country enjoyed rising productivity. This was particularly notable

TABLE 7.3
 Malaysia: Export by Major Groups, 1960-1978
 (\$ million)

	1960		1965		1970		1975		1978	
	Value	Share (%)	Value	Share (%)	Value	Share (%)	Value	Share (%)	Value	Share (%)
<i>Agriculture</i>	2,400	66.1	2,062	54.5	3,055	59.2	4,879	52.8	8,644	50.6
Rubber	2,001	55.1	1,462	38.6	1,724	33.4	2,026	21.9	3,601	21.1
Timber ¹	194	5.3	360	9.5	852	16.5	1,111	12.0	2,544	14.9
Palm oil ²	72	2.0	116	3.1	275	5.3	1,426	15.4	2,057	12.0
Pepper	19	0.5	44	1.2	59	1.2	106	1.2	154	0.9
Cocoa	—	—	—	—	—	—	35	0.4	130	0.8
Other	114	3.2	80	2.1	145	2.8	175	1.9	158	0.9
<i>Minerals</i>	808	22.2	1,134	30.0	1,339	25.9	2,083	22.6	4,389	25.6
Tin	508	14.0	872	23.1	1,013	19.6	1,206	13.1	2,022	11.8
Iron ore	140	3.9	161	4.2	107	2.1	2	—	1	—
Petroleum ³	147	4.0	87	2.3	202	3.9	853	9.3	2,263	13.2
Other	13	0.3	14	0.4	17	0.3	22	0.2	103	0.6
<i>Manufactures</i>	310	8.5	460	12.2	615	11.9	1,978	21.4	3,622	21.2
Petroleum products	143	3.9	157	4.2	161	3.1	106	1.1	96	0.6
Food	46	1.3	70	1.8	92	1.8	243	2.6	263	1.5
Textile and footwear	n.a.	n.a.	n.a.	n.a.	32	0.6	218	2.4	464	2.7
Wood products	n.a.	n.a.	n.a.	n.a.	90	1.7	205	2.2	367	2.1
Chemical	18	0.5	37	1.0	35	0.7	79	0.9	103	0.6
Electrical machinery & parts	n.a.	n.a.	n.a.	n.a.	15	0.3	304	3.3	1,568	9.2
Rubber products	n.a.	n.a.	n.a.	n.a.	17	0.3	43	0.5	65	0.4
Other	103	2.8	196	5.2	173	3.4	780	8.4	696	4.1
<i>Other exports</i>	115	3.2	127	3.3	153	3.0	291	3.2	439	2.6
Total	3633	100.0	3783	100.0	5,162	100.0	9,231	100.0	17,094	100.0

Source: Bank Negara (QEB), 1979: 64.

¹Saw logs and sawn timber.

²Includes palm kernel oil.

³Crude and partly refined petroleum.

n.a.—not available.

with rubber, which increased substantially in volume of production, but the price of which fell from 106.5 ¢ per lb. in 1960 to 58 ¢ in 1970 (Malaysia, 1976b: 125).

Another factor that mitigated against price increases was the poor bargaining power of labour. Labour generally was in oversupply, with quite high levels of unemployment both in the rural and urban areas. Moreover, it was poorly organized, and unions were generally not aggressive; nor was there any effective minimum wage regulation. Under these circumstances, upward pressure on wages was minimal.

Finally, during the 1960s fiscal and monetary policy was conservative, and government budgeting produced a current account surplus on average over the period (see Chapter 14). In an open economy, these conditions taken together discouraged inflation.

In the 1970s, however, inflation was substantial, reaching a peak of 17.4 per cent in 1974. Thereafter it declined to 3.5 per cent in 1979, giving an average of about 6 per cent per annum for 1971-9 (Table 7.4). There were several major reasons for the different performance compared with the previous decade.

First, there were the external factors. The external inflationary influences were much stronger than during the 1960s and were more widespread, so that they could not be avoided by changing

TABLE 7.4
Peninsular Malaysia: Consumer Price Index
(1967 = 100)

<i>Year</i>	<i>Index</i>
1962	92.3
1965	94.8
1966	96.0
1967	100.0
1968	99.8
1969	99.4
1970	101.3
1971	102.9
1972	106.2
1973	117.4
1974	137.8
1975	144.0
1976	147.8
1977	154.8
1978	162.4
1979	168.3
1980	179.5

Sources: Kasper, 1974: 107; Bank Negara (QEB), various issues.

to other sources of imports. The imported inflationary influence was therefore strong, and, as is to be expected in so open an economy, this was a major cause of price increases in Malaysia.

It was not, however, the only cause. With the introduction of the more vigorous approach to development at the beginning of the 1970s, a considerably less conservative approach was taken by the Government in monetary policy and in budgeting. Some details of these factors are given in Chapters 13 and 14. During the early 1970s, public fixed investment and public consumption increased particularly rapidly, followed fairly closely by private fixed investment. With the recovery in rubber prices in 1972, and the sharp increases in other export prices that followed, internal demand continued to be stimulated, which did little to restrain the effects of the external inflationary forces. However wage increases were moderate by world standards, and although labour shortages developed in some rural industries, and in some skilled urban occupations, generally speaking Malaysia suffered less from the world inflation of the 1970s than did most other countries.

EMPLOYMENT STRUCTURE

The structure of Malaysian employment by industry is clearly shown in Table 7.5, as are the striking changes that have taken place in the 1970s. Agriculture is by far the largest employer of labour, and although the proportion of total employment provided by agriculture fell from 53.5 per cent in 1970 to 40.6 per cent in 1980, it still employed twice as many Malaysians as any other sector in the latter year. The other major sources of employment were Services, Commerce and Manufacturing, all of which increased their contribution during the decade. Manufacturing (see Chapter 12) was, however, by far the fastest growing employer of labour, and by the end of the decade employed just slightly more than the government service subsector. The projected growth pattern of employment to 1990 is also shown in the Table.

A point of interest in this structure is that the percentage of persons employed in agriculture is higher than the percentage of the gross domestic product produced by that sector. In crude terms, this means that the output per worker is lower in agriculture than in the rest of the economy. This is hardly surprising, as the agricultural sector employs less capital per person employed than most other sectors of the economy, quite apart from the fact that a significant proportion of agricultural production is consumed on the farm and does not go through the market. Such production is difficult to observe and quantify, and is undervalued in the statistics,

TABLE 7.5
Malaysia: Employment Growth by Sector, 1965-1990

	1965 ¹		1970		1975		1978		1980 ²		1990 ²	
	('000)	(%)	('000)	(%)	('000)	(%)	('000)	(%)	('000)	(%)	('000)	(%)
1. Agriculture	1,350.0	52.1	1,786.8	53.5	1,915.0	47.6	1,972.5	43.9	2,066.9	40.6	2,223.9	31.8
2. Mining and Quarrying	66.0	2.5	87.3	2.6	87.5	2.2	90.2	2.0	89.6	1.7	93.1	1.3
3. Manufacturing	217.0	8.4	289.9	8.7	448.0	11.1	587.3	13.1	803.1	15.8	1,368.7	19.5
4. Construction	90.0	3.5	90.6	2.7	159.6	4.0	196.5	4.4	262.8	5.2	413.6	5.9
5. Utilities	16.0	0.6	18.6	0.6	23.9	0.6	27.7	0.6	49.5	1.0	75.2	1.1
6. Transport, Storage & Communication	101.0	3.9	133.4	4.0	180.8	4.5	207.9	4.6	193.2	3.8	263.4	3.8
7. Commerce:	287.0	11.1	406.7	12.2	520.9	13.0	602.6	13.4	700.6	13.7	1,114.6	15.4
Wholesale and retail trade	—	—	379.9	11.4	482.2	12.0	559.3	12.4	648.5	12.7	1,034.9	14.8
Finance and insurance	—	—	26.8	0.8	38.7	1.0	43.3	1.0	52.1	1.0	80.7	1.1
8. Services	463.0	17.9	526.2	15.7	683.8	17.0	808.9	18.0	927.8	18.2	1,355.3	21.4
Producers of government service	—	—	403.9	12.0	520.4	12.9	621.8	13.8	710.1	13.9	1,104.0	15.8
Other services	—	—	122.3	3.7	163.4	4.1	187.1	4.2	217.7	4.3	344.2	4.9
	2,590.0	100.0	3,339.5	100.0	4,019.5	100.0	4,493.6	100.0	5,093.5	100.0	7,001.7	100.0

Sources: Malaysia, 1971: 98; Malaysia, 1976b: 68 and 140; Malaysia, 1979c: 64 and 66; and Malaysia, 1981: 169.

¹For Peninsular Malaysia.

²Estimated and Projected Employment Growth for the year 1980 and 1990 respectively.

at least for purposes of comparison with other sectors of the economy.

(Another aspect of the employment structure that is of importance in Malaysia is its division into ethnic groups.) For this, information is available in detail only for Peninsular Malaysia.

One of the characteristics of the Malaysian employment structure in the past has been the very marked identification of race with economic function. To make broad generalizations, in the 1950s the Malays were primarily rural smallholders, the Indians were primarily rural estate workers and Government labourers, whilst the Chinese were primarily businessmen and tin miners. There were many exceptions, and some Chinese were market gardeners and rubber tappers, whilst some Indians were financiers and professional men, and some Malays occupied the higher ranks of the civil service; but by and large there was in fact such a division of employment by race. Moreover, that division resulted in a very unequal distribution of incomes and wealth, and one of the main objectives of the New Economic Policy was to correct this, and bring about a division of employment at every level that was more in proportion to the size of each racial component in the total population.)

Table 7.6 shows the employment structure by ethnic group and economic sector for the late 1960s and the mid-1970s in Peninsular Malaysia. Sectors 1 and 2 together make up the agricultural sector, and it is seen that in 1968, 66 per cent of Malay employment was in that sector, and 52 per cent of Indian, but only 32 per cent of total Chinese employment. On the other hand, mining, manufacturing, construction and commerce (sectors 3, 4, 5 and 7) together provided only about 15 per cent of employment for Malays, 17 per cent for Indians, and 45 per cent for Chinese.

By 1975, some improvement in the balance was noticeable, with Malay and Indian dependence on Agriculture being reduced to 56 per cent and 45 per cent respectively, with increased participation in commerce, services (mainly Government) and particularly in manufacturing. But this was only a beginning, for the reduction in Chinese dependence on agriculture has been even greater—22 per cent—and the balance had really improved in a few sectors only. The employment structure was changing, mainly in the directions aimed at by the NEP, but by 1975 the change was still small. There are indications, however, that in the second half of the 1970s, the Government policies aimed at readjusting these racial imbalances were having an increasing effect.

(One of the limiting factors in the structural change taking place has been that the movement of Malays and Indians into the more modern sectors of manufacturing, construction and services tended

TABLE 7.6
Peninsular Malaysia: Employment by Ethnic Groups and Sector, 1967-8 and 1975

	1967/1968					1975			
	Total		Of which			Total		Of which	
	No. (<i>'000</i>)	% All Races	% Malays	% Chinese	% Indians	No. (<i>'000</i>)	% All Races	% Malays	% Chinese
1. Agriculture, forestry, hunting & fishing	500.7	21.1	33.7	10.4	1.7	640.1	17.9	28.4	7.2
2. Agricultural products requiring substantial processing	718.8	30.4	32.1	21.5	50.9	871.7	24.4	27.3	15.6
3. Mining, quarrying	72.0	3.0	1.6	5.1	2.9	37.1	1.0	0.7	1.6
4. Manufacturing	214.8	9.0	5.9	15.5	3.5	533.5	15.0	9.7	24.1
5. Construction	78.9	3.3	1.9	5.6	2.7	164.1	4.6	2.7	7.3
6. Electricity, gas, water, sanitary services	22.3	0.9	0.8	0.4	3.1	37.1	1.0	1.3	0.3
7. Commerce	255.2	10.8	5.5	19.1	8.1	492.8	13.8	8.2	22.3
8. Transport, storage & communications	86.2	3.6	3.1	3.6	6.1	146.9	4.1	3.7	4.1
9. Services	413.0	17.4	15.3	18.6	20.9	643.2	18.0	18.0	17.5
10. Not specified	3.5	0.1	0.1	0.2	0.1	0.7	0.2	—	—
Total	2,365.4	100.0	100.0	100.0	100.0	3,567.2	100.0	100.0	100.0

Sources: Malaysia, n.d. (d), 93; Malaysia, 1976c: 76-7.

to be initially at the lower end of the income scales.) This is natural because the majority of the new entrants are young rural people with little experience or skill, with usually a less elaborate education than those raised in the cities. It does however limit the rate of achievement of the Government's real purpose.

Data for employment by race and sector are available for 1980 only in aggregated form, and disaggregated data for 1975, which are available, do not show any of the effects of the Government programmes in the second half of the 1970s. Table 7.7 shows the limited 1980 data available.

In this Table, the distribution by race in each aggregated sector is given as a percentage of the total employment in that sector. It thus shows a different dimension to that shown in Table 7.6. However it does give an indication of where the successes and the difficulties of some aspects of the NEP were to be found. In tertiary industries, for example, the Malays were slightly in the lead in 1980, although not yet up to the 52 per cent necessary to correspond with their proportion of the total population. In secondary industry, the Chinese were still considerably over-represented, whilst in agriculture, despite considerable offtake of Malays into urban employment, the proportion of Malays had increased. This was because the policy of inducing Chinese to move out of urban employment into agriculture has been unsuccessful; in fact their movement has been largely the other way. As the Mid-Term Review of the Third Malaysia Plan pointed out, 'It is unreasonable to expect other Malaysians, especially those from higher productivity economic environment to take up the lower earning jobs in the Agricultural sector' (Malaysia, 1979c: 48). One may conclude, therefore, that on the basis of the performance in the 1970s, the NEP targets for restructure of employment between races may not all be attainable by 1990 as planned; though considerable progress is being made in that direction.

TABLE 7.7
Peninsular Malaysia: Employment by Race
and Sector, 1980

<i>Sector</i>	<i>Malays (%)</i>	<i>Chinese (%)</i>	<i>Indians (%)</i>	<i>Total¹ ('000)</i>
1. Primary	66.3	19.9	13.0	1,539.1
2. Secondary	39.8	51.1	8.5	1,244.7
3. Tertiary	47.0	41.6	10.5	1,480.6
Total	51.9	36.5	10.8	4,264.4

Source: Malaysia, 1979c: 46.

TABLE 7.8
 Peninsular Malaysia: Share of the Various Racial Groups in
 Employment by Occupation in 1980 and 1990*

<i>Occupation</i>	<i>Malays (%)</i>	<i>Chinese (%)</i>	<i>Indians (%)</i>	<i>Total¹ ('000)</i>
1. Professional and technical workers	50.0 (50.0)	36.9 (37.2)	11.4 (11.5)	236.2 (387.0)
2. Administrative and managerial workers	31.6 (49.3)	57.0 (39.4)	6.1 (9.8)	51.2 (73.8)
3. Clerical workers	55.3 (47.9)	36.2 (38.7)	6.9 (12.5)	306.5 (372.2)
4. Sales workers	23.1 (36.9)	69.2 (51.8)	7.6 (11.0)	432.3 (455.8)
5. Agricultural workers	67.7 (62.3)	19.7 (27.8)	11.9 (9.2)	1,474.8 (1,700.9)
6. Production workers	45.4 (52.0)	42.6 (38.0)	11.4 (9.6)	1,412.1 (1,072.1)
7. Services	47.9 (52.3)	39.9 (35.4)	11.6 (11.4)	351.3 (1,397.2)
Total	51.9 (53.6)	36.5 (35.3)	10.8 (10.4)	4,264.4 (5,449.1)

Sources: Malaysia, 1976b: 82; Malaysia, 1979c: 47; Malaysia, 1981: 59.

*The figures in brackets give the targets for attainment by 1990 as specified in the Third Malaysia Plan.

¹Including all races.

Evidence of this progress is found in Table 7.8, which shows employment by type of occupation and race for 1980 and compares these with the long-term targets for 1990 set in the Third Malaysia Plan. Of particular interest is the fact that in that year Malay participation had already exceeded the 1990 planned proportion in two occupational groups. The first is agricultural workers, where of course the target had in fact been to reduce their preponderance to about 62 per cent, so that the remaining excess 5 per cent show how much still remains to be achieved in the 1980s. With clerical workers, however, Malays had surpassed their target, mainly at the expense of the Chinese. This would be due primarily to the success of some aspects of the improved educational facilities made available to Malays. Similarly, Malay participation had attained the 1990 target for professional and technical workers and had come close to the 1990 target for the services sector. However, in the private sector of the economy, ratios achieved for the production workers and administrative and management workers fell far short of target.

This suggests two important policy issues that will require consideration throughout the 1980s. One will be how to accelerate the reduction of Malay dependence on agriculture on the one hand. The other will be how to increase their rate of entry into the more rewarding levels of the private urban sector.

The Indian component in the employment structure, on the other hand, was reasonably close to the 1990 targets except for an excess in agricultural employment and a fairly substantial deficit as sales workers, as clerical workers and as administrators and managers. Behind this, however, was a worrying imbalance of Indian participation in government educational institutions, where they were substantially below the level of participation that would be warranted by their proportion of the population.

INCOME INEQUALITY

During the early colonial period, economic development took the form of introduction of an advanced enclave, mainly foreign, into a basically self-subsistent traditional economy. The advanced enclave was primarily export oriented, and had little economic relationship with the traditional economy. This was the common form of most colonial intrusions in the nineteenth century and before, and in Malaysia was based on spices, jungle products and tin, and subsequently cane sugar.

During the early twentieth century this began to change, with the development of the small foreign enclave into industries of considerable size and wide distribution. Coconuts, and especially rubber, began to spread over most of Peninsular Malaysia, first in large foreign owned and managed estates, and soon after in small-holdings. At the same time, expanding government revenues made possible the development of road and rail communications, and other public works such as irrigation and drainage. This in turn increased both the demand for food, and particularly rice, and the capacity of the self-subsistent traditional economy to produce a modest rice surplus for sale to the advanced sector of the economy. This process developed a form of dualism in the economy, in which both the advanced and the traditional sectors operated in the market, but at very different levels.

This dualism was deeply embedded in the Malaysian socio-economic structure, and when planned economic development began to be taken seriously in the 1950s, it was still very much a feature of the Malaysian situation. This dualism was apparent not only between production units of different scales, but also between different sectors, different regions and different races.

The early development plans were aimed fairly simply at the expansion of the level of economic activity within the country through economic growth (see Chapter 8). However economic growth took place most readily in the advanced sector of the economy, and benefits to the traditional sector came very much more slowly and generally at higher cost per unit of growth achieved. One notable result was that incomes rose rapidly in the advanced sector, and slowly, if at all, in the traditional sector, increasing the inequalities of incomes rather than the reverse. On top of all this, the advanced sector was mainly owned and operated by foreigners or immigrants, whilst the traditional sector was mainly Malay or other Bumiputra. The result was the racial rioting that exploded in 1969 and changed the course of Malaysian development planning, with the adoption of the New Economic Policy.

The NEP still aimed to secure growth in the economy, but as a means rather than as an end in itself. It was required to enable a readjustment of the distribution of incomes and wealth in the economy, and not simply for the enlargement of the total. Moreover, whilst the simple pursuit of growth had increased inequality, the NEP was concerned primarily with reducing it. It was aimed at reducing poverty, irrespective of race or location—although the greater proportion of the poor were Bumiputra, and were in fact resident in the rural areas.

This has been a difficult policy to implement, mainly because the inherited dualism in the economy automatically favours the advanced sector and its economic participants in so many ways over the participants of the traditional sector. Very special and difficult measures are required to counteract this natural inherent characteristic of the system.

The structural distribution of incomes in other dimensions is difficult to determine with confidence, because useable data are scarce, somewhat out of date, and often of questionable application. Such data as were available at the beginning of 1980 are set out in Table 7.9. Questionable though the data are, there are nevertheless certain consistent trends indicated in the table, which correspond with the expectations derived from other types of analysis.

First and most striking is the consistent trend in all the Gini coefficients over time. For Peninsular Malaysia as a whole, and for each subdivision of the population shown in the table, inequality is shown as increasing very substantially from 1958 to 1968, followed by a decline to 1970 and a further decline to 1973. This tallies well with the suggestion earlier in this section that the early planning directed primarily at growth had produced a rapid increase in the inequality of income distribution, but that this trend had been

TABLE 7.9
Peninsular Malaysia: Household Income Inequality

	1957-1958		1967-1968		1970		1973	
	Mean Household Income (\$ per month)	Gini Coefficient	Mean Household Income (\$ per month)	Gini Coefficient	Mean Household Income (\$ per month)	Gini Coefficient	Mean Household Income (\$ per month)	Gini Coefficient
Peninsular Malaysia	199	0.3705	217	0.5624	264	0.5129	362	0.4872
Rural areas	170	0.3549	114	0.4794	200	0.4689	269	0.4516
Urban areas ¹	261	0.3514	283	0.5224	428	0.5037	570	0.4742
Malays	144	0.3410	130	0.5072	172	0.4664	242	0.4437
Chinese	272	0.3322	321	0.5081	394	0.4656	534	0.4553
Indians	217	0.3117	253	0.4974	304	0.4722	408	0.4693
Others ²	—	—	839	0.4912	813	0.6673	1,299	—

Sources: S. Anand, 1978: 61; Ismail, 1978a; Malaysia, 1979c: 44.

¹Urban area is defined as an area with more than 10,000 people.

²Others include Thai, other Asian, Eurasian and European.

reversed, though only to a moderate extent, after the 1969 riots. The fact that this reversal was apparent as early as 1970 indicates clearly that it could not have been caused by the NEP, which was not effective until after that year. The explanation, at least for the decline to 1970, appears to lie in the externally induced variations in the pattern of economic activity and rewards. However, the quite modest further reduction in the Gini co-efficients between 1970 and 1973 may indicate the beginning of some effects from the deliberate attempts by the Government to produce such a result. If so, future data of this kind, if not masked by external influences, should reflect further improvements.

Another dimension of the income structure revealed in Table 7.9 is less comforting. This is the nature of the changes that have taken place in the incomes of the rural and urban populations, and in the racial distribution of incomes. Between 1958 and 1973, the average urban income has changed from 1.5 times the average rural income to 2.1 times. Similarly Chinese average incomes were 1.9 times average Malay incomes in 1958, but nearly 2.2 times in 1973. The only comfort to be derived from these figures is that they appear to have been much worse in 1968, when the urban-rural ratio was nearly 2.5 to 1, and the Chinese-Malay ratio approximately the same. These figures, imprecise though they certainly are, seem to suggest that the income structure became considerably worse in the first decade after 1958, and then improved. This appears to have applied both to the rural-urban and the inter-racial differentials.

* * *

One further aspect of income distribution of interest from a structural point of view is the distribution of income by states or regions. Some aspects of the distribution of natural wealth, and its distribution, have been mentioned in Chapter 2, whilst the variations in the development of the physical infrastructure are discussed in Chapter 3. The geographical patterns of income and development are to some extent the result of the tin ore discoveries of the colonial period, and partially to historical accident. Development in Peninsular Malaysia centred originally round the tin mining industry, (which was concentrated in the states of Perak and Selangor) and around the trading centres of Penang, Malacca and Singapore. When the rubber industry developed, it was natural for it to cluster originally within easy reach of the existing infrastructure, which was mainly west of the Main Range and mainly between Penang in the north and Singapore in the south. The north-western states of

Kedah and Perlis were somewhat outside this ambit, and the East Coast States, particularly Kelantan and Trengganu, had difficulties of access; in these, development was slower to start. In Sabah and Sarawak, initial development was even slower.

The result of this pattern of development is most noticeable in the patterns of incomes, for the gross national product per capita in Kedah, Perlis, Kelantan, Trengganu, Sarawak, and (at least until the late 1970s) Sabah, have been substantially lower than in the other states of the Federation. This applies not only to actual direct income flows, but also to the level of public amenities available to the general population there.

This is not, however, clearly related to the availability or absence of natural resources in these states. In fact, a considerable proportion of the resources from which Malaysia will derive its wealth and income in the 1980s and 1990s exist in these previously less developed, and less explored states (see Chapter 2). This applies to virgin land for cultivation, forest timber resources, and mineral resources such as oil, natural gas, and even some tin.

POVERTY

The eradication of poverty is one of the major objectives of the New Economic Policy, and some considerable attention has been paid to the identification and definition of poverty for this purpose. In 1970, the definition of poverty accepted for the implementation of the NEP was \$33 per member of household per month (Anand, 1973). By world standards this appears high. There has been some recent discussion of this, and one study has calculated that the more appropriate figure for Peninsular Malaysia would be about \$38 per member of household per month (Ishak Shari and Rogayah Mat Zain, 1979). Moreover the study suggests that the figure should be higher in the urban areas and lower in the rural areas. In the late 1970s, the poverty lines used by the planning authorities in Malaysia were \$246 per household per month for rural areas and \$273 for urban areas, assuming an average household size of 5.4 persons, at June 1977 prices (Malaysia, 1978c). The use of a single figure for the whole population tends to exaggerate rural poverty, and to understate poverty in urban areas. In this latter respect, the availability without payment of various facilities and services (firewood, for example) in some rural areas, and the difficulty of placing a comparable value on food and other goods and services produced for own consumption in rural households, supports this view.

However, any standard used as a 'poverty line' is necessarily somewhat arbitrary, and its main value is as a relative measure of

TABLE 7.10
 Peninsular Malaysia: Number of Poor Households by Sector, 1980

	<i>Total Households ('000)</i>	<i>Total Poor Households ('000)</i>	<i>Incidence of Poverty (%)</i>	<i>Percentage Among Poor</i>
<i>Agriculture</i>				
Rubber smallholders	425.9	175.9	41.3	26.4
Oil Palm smallholders	24.6	1.9	7.8	0.3
Coconut smallholders	34.2	13.3	38.9	2.0
Padi farmers	151.0	83.2	55.1	12.5
Other agriculture	172.2	110.5	64.1	16.6
Fishermen	42.8	19.4	45.3	2.9
Estate workers	112.5	39.5	35.2	5.9
Agricultural total	963.2	443.7	46.1	66.6
<i>Non-agriculture</i>				
Mining	32.6	11.1	34.0	1.7
Manufacturing	301.1	55.4	18.4	8.3
Construction	56.3	12.0	21.3	1.8
Transport and Utilities	137.2	31.5	23.0	4.7
Commerce and other services	793.6	112.4	14.2	16.9
Non-agricultural total	1,320.8	222.4	16.8	33.4
Total	2,284.0	666.1	29.2	100.0

Source: Malaysia, 1981: 333.

change. Therefore, even though the Malaysian figure used can be argued about, it nevertheless serves a very useful purpose in showing the trends in the spread or reduction of poverty.

According to the Fourth Malaysia Plan (Malaysia, 1981: 32) the overall incidence of poverty in Peninsular Malaysia was 49.3 per cent in 1970, and was reduced to 29.2 per cent in 1980. In the rural areas, however, the incidence was higher, and was reduced, from 58.7 per cent in 1970 to 37.7 per cent in 1980. This was expected to be reduced to just under 25 per cent in 1990 (Malaysia, 1981: 171).

Table 7.10 gives a detailed breakdown of the figures. These are of considerable interest, as they show the remarkable differences in poverty incidence within the agricultural sector, from 7.8 per cent amongst oil palm smallholders (almost entirely in land settlement schemes) on the one hand, to over 55 per cent amongst other agricultural workers and padi farmers. Although the incomes of these workers are probably under-estimated in regard to their consumption of own-produced goods and services, this does not alter the fact that the difference between the two groups is large and significant. The table also shows that in the occupations classified as non-rural, not only is the general level of poverty incidence relatively much lower, but the differences between strata are considerably less.

This question of poverty is of great importance from many points of view, but most of all, in the political and social climate of Malaysia at the beginning of the 1980s, because poverty is closely correlated with racial divisions. By far the larger proportion of the poor are Bumiputra, and although clearly the Government policies of the 1970s have produced a considerable improvement in the poverty picture, it is still a long way from solution. The problem of poverty, and its racial distribution, will surely be one of the major issues in policy formation throughout the 1980s, and possibly into the 1990s as well.

8 Development Planning

MALAYSIA is virtually unique amongst South and South-East Asian countries in its pattern of development and development planning. There is one major reason for the distinct character of Malaysian development planning: the country has never been faced with serious population pressure on the land. When Malaysia became independent, there were still vast tracts of virtually empty jungle, with good soils and assured rainfall, permitting continued development on the lines established by the colonial regime between 1900 and 1940. The pattern was one of expanding large-scale, modern, technologically advanced, land-and-capital-intensive plantation agriculture, plus some modern mining. In large measure it consisted of opening up one frontier region after another, cutting down one kind of tree and planting others, building infrastructure and processing mills. In sharp contrast to her Asian neighbours, Malaysia at the time of the transfer of sovereignty had half of her labour force already in the modern sector. Moreover, while a good deal of the modern sector was in the hands of large-scale European enterprises, much of it was owned and operated by Malaysian nationals (including Chinese and Indians), and some of the Malaysian enterprises were quite large scale too.

Since so much of development consisted of opening up new land and exploiting it for mining and modern plantation agriculture, it was natural for Malaysian development planners to think in terms of land use. Land use planning in turn inclines planners to think of development in terms of space. From the beginning of formal development planning in Malaysia, urban and regional planning has played a role and assumed a degree of importance which appeared in other less developed countries, especially those in Asia and Africa, only in the late 1960s, and early 1970s. It is this emphasis on urban and regional planning which, more than any other feature, gives to Malaysian development planning its special flavour.

The reason behind this special pattern of development and of development planning is not far to seek. Malaysia was fortunate in

not having rich resources to attract the interest of the Portuguese when they began trading with South-East Asia in the sixteenth century, or of the Dutch and British when they showed up in the seventeenth. Poor in spices and precious metals in comparison to her neighbours, and with soils less suitable for sugar, tobacco, tea and coffee as these became the centre of European interest, Malaysia lured fewer Europeans than her neighbours into trading with her in the seventeenth and eighteenth centuries, and many fewer to settle and produce export products during the eighteenth and nineteenth centuries. Singapore's splendid harbour attracted the British along with all the other imperialist powers, and in 1823 Raffles moved from Bencoolen to Singapore as part of a swap arranged with the Dutch. Malacca controlled the Straits, so it held some interest too. But there the British were content to sit, plus a few at Penang, leaving the interior untouched, until towards the end of the nineteenth century it was found that Malaysia was the best place in the British Empire for growing rubber.

The essential disinterest of the British in the Malaysian interior meant that large-scale European settlement of the interior came two to three generations later than it did in neighbouring countries. As a consequence the population explosion also started two or three generations later. Everywhere in Asia the population explosion was launched as Europeans settled in numbers, and reduced death rates of the indigenous populations as they sought to protect themselves from tropical diseases and to maintain law and order amongst previously warring kingdoms. In nearby Java, for example, Dutch settlement became important with the introduction of the Culture System in 1830, involving as it did the direct management of production as distinct from mere trading on the basis of forced deliveries. As a result, the population of Java exploded from an estimated 6 million in 1830 to 40 million in 1900. The population explosion in Sri Lanka started a bit later with the expansion of the tea plantations; but death rates remained rather high until after World War II when malaria was for a time virtually eradicated. Sri Lanka today faces a severe shortage of good land with abundant water. Thus in Malaysia the population explosion came a full three generations later than in Indonesia and two generations later than in Sri Lanka. And that makes all the difference. It meant that Malaysia had plenty of good land, with high rainfall, still under jungle when the country became independent. Today, with a land area five times that of Sri Lanka, Malaysia has a slightly smaller population; and Java, with more than 80 million people crowded onto an island 600 miles long and 175 miles wide at its widest, constitutes Indonesia's major development problem.

All this meant that Malaysians were able to transfer into the modern sector while Indonesians and Sri Lankans (and other Asians apart from the Japanese) could not. When Indonesia became independent in 1950, only 7 per cent of the labour force had been drawn into the modern sector. Some 80 per cent of the population were peasants cultivating rice on small plots. Three years earlier than that in Malaysia, less than half of the Malays and only 6.2 per cent of the Chinese were engaged in peasant rice culture. Some 20 per cent of the Malays, 23.4 per cent of the Chinese, and 25.9 per cent of the total population were in the rubber sector. Nearly 12 per cent of the Malays and 21.5 per cent of the total population were engaged in manufacturing, commerce and finance, transportation and communications, and mining. Even when allowance is made for traditional or 'informal' activities in these sectors, it is clear that as early as 1947 nearly half of the Malays and more than half the total population of Malaya had been absorbed in the modern sector.

The disinterest of the British in the interior of Malaya had another useful byproduct: the system of local government was relatively little disturbed, at least until the twentieth century, and indigenous entrepreneurship was not destroyed, as it was in Indonesia and elsewhere. Not only were there opportunities for further modern sector development, especially in plantation agriculture, mining and forestry, when Malaya became independent, but there were Malaysians, including the royal families, the Chinese, and Indians, plus a few Malays outside of the royal families, who were in a position to seize the opportunities. Lack of efficient public administration and of indigenous entrepreneurs has been a much less serious obstacle to development than in most Asian countries.

The British colonial regime also left Malaya with a comparatively high level of education. It could not be seriously maintained that the British made a conscientious effort to educate Malaysians from the beginning of the colonial regime. On the other hand, the story of education under colonialism is not the dismal one of retrogression that it is in Burma or Indonesia. Mission schools were started in Singapore, Penang and Malacca early in the nineteenth century, and other privately supported schools were set up as well. More such schools were established as the century wore on and the numbers of British in the country increased. Between the wars the educational system was substantially expanded. A teacher's training college was set up in 1922, a technical school of agriculture in 1931. The University of Malaya was established in 1949 and rapidly became one of the best universities in Asia. The Universiti Sains Malaysia and the Universiti Kebangsaan Malaysia are, of course, pro-

ducts of independent Malaysia. But at least the British left behind an educated Malayan élite that was able to quickly assume responsibilities in both the public and the private sectors.

Since Malaysia's experience with Imperialism was a comparatively happy one and independence was gained without violence, Malaysia began her development as an independent nation with an 'outward looking' rather than an 'inward looking' world view. In contrast to such 'inward looking' neighbours as Indonesia, Burma, and the countries of Indo-China, Malaysia had no inhibitions about trading with and accepting aid from the advanced industrialized countries of the Western world. Rather than endeavouring to push European enterprise out, new private foreign investment was invited in. Malaysia has made good use of capital and technical assistance from both multilateral and bilateral donors. This statement holds with respect to planning as such, and perhaps especially to the Economic Planning Unit (EPU) in the Office of the Prime Minister, where an excellent Malaysian staff was fortified by a Ford Foundation financed team from the Harvard Development Advisory Service (since become the Harvard Economic Development Institute). The EPU also received help on a more modest scale from the United Nations and from CIDA. The regional development effort in particular benefited from foreign aid provided by the UNDP, the World Bank, the Asian Development Bank and a number of bilateral aid agencies.

Finally, whatever reservations some people may have regarding the structure of wealth and power in Malaysia, Malaysia inherited from her colonial past an admiration for Western political institutions and has functioned continuously as a parliamentary democracy ever since independence. The ideological swings of parties in power have not been very disruptive, nor have debates over preferred 'style' of development prevented decisions from being made, as they did for nearly two decades in neighbouring Indonesia and Burma, not to speak of Vietnam, Cambodia and Laos. Despite insurgency and violence of varying intensity, Malaysia has made a clear choice to develop as a 'mixed' economic system with the primary emphasis on private enterprise, and has opted for close relations with the Western powers. Experience with development over the past three decades suggests that decision-making can be more effective in countries with systems that fall clearly into one ideological category or another, whether socialist or non-socialist, than in countries where the majority of the people have not made up their minds what kind of society they want.

Within this framework, then, development planning in Malaysia has, by and large, functioned well. Growth rates have been high,

averaging 3.9 per cent per year for per capita GNP for the whole period 1960-8. For GDP the figures were 6.5 per cent for 1960-70 and 7.8 per cent for 1970-8. This growth brought per capita income (GNP) up to US\$1,090 in 1978 and presumably to more than US\$1,300 in 1980. In the eyes of some observers, Malaysia is about to graduate from the ranks of the truly underdeveloped countries; in terms of per capita income she is already above the median for middle-income countries. In 1978, the share of total output produced in agriculture was still high for a middle-income country (25 per cent compared to an average of 16 per cent) but this figure reflected the unusually high productivity of her agricultural sector. The share of industry (32 per cent) was still abnormally low for a country with so high a level of income, but was increasing at an impressive 9.6 per cent per year between 1970 and 1978, with the manufacturing component growing at the still higher rate of 12.3 per cent. By comparison, the services sector was growing at 8.4 per cent and agriculture by 5.0 per cent; structural change was taking place in the right direction. In that year Malaysia still had a smaller proportion of her labour force in industry than the average for middle-income countries: 16 per cent *vs.* 23 per cent. The share in agriculture had fallen to 50 per cent, while the share of services had risen to 34 per cent. In terms of structure, Malaysia was starting to look more 'normal' for her level of overall development.

In terms of income distribution, measured by share of total income earned by various income groups, Malaysia could not be considered to be among the more egalitarian countries. For example, the top 20 per cent of the income earners earned 56.5 per cent of the total income and the bottom 20 per cent only 3.3 per cent; in Sri Lanka, with a per capita income of only \$190 in 1978, the comparable figures were 28.2 per cent and 7.5 per cent. Still, Malaysia's income distribution is fairly typical of middle-income countries, life expectancy at birth (67) is well above the average for the group, per capita calorie intake is 17 per cent above requirements (1977) and levels of education are about average for a middle-income country. On OECD estimates, only 10 per cent of the population was below the absolute poverty line, and perhaps 15-20 per cent of the population remained in small-scale, peasant agriculture, concentrated in the North-east region of the country. On the whole, Malaysia's performance with planned development has been a creditable one.

THE NEW ECONOMIC POLICY

One dark corner remains in the picture of Malaysian economic and social development which continues to have a profound influence

on Malaysian planning: the relationship between Malays and non-Malays within the Malaysian economy and the Malaysian society. This relationship is of course well known to everyone with the slightest familiarity with Malaysia, and certainly has a familiar ring to anyone who, like the present writer, has lived for many years in the Canadian Province of Quebec. Oversimplified, the Malays have a small class of people who are both rich and powerful, and as the majority group, controls the Government. (In Quebec, read 'French Canadians' for 'Malays'.) They also constitute the overwhelming majority of the remaining poor people on the land and more than their share of low-paid workers on the plantations, in the mines and factories. The Chinese, and to a considerably lesser degree the Indians, dominate the cities, and particularly the upper echelons of commerce, industry and finance. (In Quebec read 'English Canadians' for 'Chinese' and 'foreigners' for 'Indians'.) Most of the privately owned plantations and mines not in the hands of foreigners are also in the hands of Chinese.

These are the conditions which gave rise to the race riots of May 1969 and to the New Economic Policy (NEP) which followed. The NEP is neatly summarized by Khalid Husin of Malaysia's Ministry of Land and Regional Development:

The NEP seeks the eradication of poverty irregardless of race and restructuring of Malaysian multi-ethnic society so as to reduce the identification of race with economic function or employment, within the context of an expanding economy. . . . By 1990 the Malays and other indigenous people, collectively termed as 'bumiputras', who are hitherto economically underrepresented in relation to their population strength are expected to own about 30% of the country's wealth. This is to be done through a restructuring of the employment structure by inducing greater bumiputra participation in commercial and industrial activities. In so doing the largely rural bumiputras, who are engaged mainly in agricultural activities, are to be deliberately urbanised to expose them to the demands of the urban environment (Khalid Husin, 1979: 1).

That there were some real problems behind the disturbances of 1969 is demonstrated by the figures presented in Table 8.1. In 1970, the mean monthly income of Malay households was less than half that of Chinese households for the country as a whole. The spread was particularly marked in the countryside, where Malay households were concentrated. In the cities where Chinese predominated the gap was less dramatic. If we compare the average of Malay rural households with the average of Chinese urban households, there is disparity of 300 per cent.

Even more striking are the figures for ownership of assets presented in Table 8.1. In the corporate sector of modern agriculture, only 0.3 per cent of the acreage was owned by Malays. The Chinese held 26 per cent of the acreage, while the lion's share was still held

TABLE 8.1
Ownership of Assets in Modern Agriculture and Industry,
Peninsular Malaysia, 1970

Ownership	Modern Agriculture ¹ (planted acreage)				Industry ² (fixed assets)			
	Corporate Sector		Non-corporate Sector		Corporate Sector		Non-corporate Sector	
	('000 acres)	(%)	('000 acres)	(%)	\$ (million)	(%)	\$ (million)	(%)
Malaysians	515.0	29.2	697.6	94.1	559.7	42.8	167.2	97.6
Malay	5.0	0.3	349.3	47.1	11.2	0.9	3.9	2.3
Chinese	457.0	25.9	243.3	32.8	342.3	26.2	158.0	92.2
Indian	4.9	0.3	74.8	10.1	1.5	0.1	3.9	2.3
Others	48.1	2.7	13.2	1.8	187.2	14.3	1.4	0.8
Government ³	—	—	17.0	2.3	17.5	1.3	—	—
Non-Malaysians	1,249.6	70.8	44.0	5.9	747.3	57.2	4.1	2.4
Total	1,764.4	100.0	741.6	100.0	1,307.0	100.0	171.3	100.0
% of total		70.4		29.6		87.4		12.6

Source: Reproduced from 1973a, Table 1-4.

¹Modern agriculture covers estate acreage under rubber, oil palm, coconut and tea. FELDA is included in this category—under the non-corporate sector. Ownership is in terms of total planted acreage.

²The industry sector covers manufacturing, construction and mining. Ownership is in terms of fixed assets. Total excludes unallocatable assets amounting to \$25.2 million.

³Government ownership of 17,000 acres in modern agriculture is included in the non-corporate sector, while its ownership of \$17.5 million of fixed assets in industry is included in the corporate sector.

by foreigners. In the non-corporate sector the Federal Land Development Agency (FELDA) together with private smallholders of Malay origin; accounted for 47 per cent of the total but even here the Chinese held 33 per cent. In corporate industry, Malays were virtually non-existent, and even in non-corporate industry only 2.3 per cent of the assets were held by Malays. In the corporate sector of industry, foreigners were predominant, although Chinese holdings were far from being insignificant. The non-corporate industrial sector was overwhelmingly Chinese.

In a sense all development plans and policies undertaken in Malaysia since 1970 may be regarded as part of the NEP, which was the political response to the situation described above and the unrest to which it gave rise. Dr Kamal Salih, Dean of the School of Comparative Social Sciences at Penang's Universiti Sains Malaysia, while critical of the 'lack of operational strategies' and 'poor co-ordination', expresses admiration for its conception. 'The New Economic Policy (NEP) is surprisingly consistent in its conception', he writes 'surprising because it addresses itself to so many problems which are the entrenched pathologies of the Malaysian situation' (Kamal Salih, 1979).

In effect, the NEP was expressed in two mutually interacting ways: by establishing new institutions with the express aim of improving the relative and absolute condition of Malays; and by incorporating the objectives of the NEP into the formal development plans. Since the NEP envisaged the process as one of assuring to the Malay population a larger share of increases in income and wealth, rather than an immediate redistribution of current income and existing wealth, it was recognized that the NEP in effect dictated a high rate of economic growth and that continued high growth would require accelerated industrialization. To achieve both the economic and social goals of the policy, and particularly to diminish disparities in occupational structure between Malays and non-Malays, it was necessary to bring Malays more completely into the industrialization process, and into urban life more generally.)

The new institutions set up to implement the NEP reflected this strategy, and particularly the UDA (Urban Development Authority, 1972) and PERNAS (The National Corporation, 1970). MARA, the Council of Trust for the Indigenous People, had been established in 1966, but assumed new importance with the launching of the NEP. MARA was expressly concerned with assisting and encouraging Malay enterprise, in both industry and commerce, as was PERNAS and, at the State level, the State Economic Development Corporations. The contribution of UDA was more indirect. However, the legislation of 1971 establishing it, in addition to assigning

it responsibility for improving housing, traffic circulation, and the physical urban environment more generally, also required it 'to promote and carry out projects in urban development areas with a view to achieve the distribution of opportunities among the various races in the field of commerce and industry and other activities; and to translate into action programmes the government policy for restructuring society through (urban) development'. Mention should also be made of MIDA (Malaysian Industrial Development Authority). While MIDA was concerned with establishing industrial estates and with accelerating industrialization in general, it has also made efforts to increase Malay participation in joint ventures with foreign firms.)

THE PLANS

The (First Malaysia Plan of 1966-70) was competently done and reflected the thinking about development that characterized the 1960s. It was essentially a macro-economic plan, determining investment requirements for meeting target rates of growth of national income and allocating an investment budget among sectors.) For the most part, it was neither better nor worse than other plans of the period, in those cases where plans were prepared by well-trained staffs of indigenous experts with outside help. Somewhat more interesting was the Perspective Plan for 1985 which was included in the First Plan. The Perspective Plan was very carefully done and was perhaps the best of its kind ever produced for Malaysia, at least in comparison to others produced in other countries in the same period. A notable feature of it was the projected structural change, with the share of agriculture in GDP falling from 32 per cent in 1970 to 26 per cent in 1985, and the share of industry and services increasing accordingly. The base figure of 32 per cent for 1970 was of course itself a projection. It turned out to be too high, and the target rate of structural change too modest. The important fact, however, is that the First Plan reflected the clear understanding that structural change was a *sine qua non* of continued high growth of the Malaysian economy.)

(The Jengka Triangle regional development scheme in Pahang was launched during the life of the First Plan, with World Bank assistance, but was a bit apart from it.) For one thing it was established through State legislation with Federal supervision, an awkward combination. Khalid Husin believes that this structure handicapped the Jengka project; the Jengka Development Authority had 'little legal muscle', he says, and was plagued by 'shortage of funds and professional manpower'. He does not deny that Jengka was a

success as a resettlement scheme. On the contrary he insists that 'it must be stated that in terms of new land development JENGKA is spectacularly successful'. However, he adds that 'the credit is FELDA's not Jengka Development Authority' (Khalid Husin, 1979). It might also be said that when Jengka was launched the Federal Government lacked a theory and an ideology of both national and regional government that would permit the two to be integrated. Regional development was simply opening up more land, national development was increasing total investment and achieving some structural change. Of course schemes like Jengka, and also Johore Tenggara which was planned during the First Plan period, were avenues for spending money on development; but that is about as far as integration went.

The Second Malaysia Plan

The Second Malaysia Plan for 1971-5 had a more clearcut ideological foundation and broader view of the development process in terms of underlying theory. It has been described as 'a blueprint for the New Economic Policy'. It provided policies, projects and programmes to modernize rural life, encourage a rapid and balanced growth of urban activities, provide improved education and training programmes at all levels, and above all to ensure the creation of a Malay commercial and industrial community at all levels and in all categories, with the aim of bringing Malays and other indigenous people into the economic life of the nation as full partners. It recognized that transforming Malaysian society so as to eliminate existing imbalances, and especially the creation of an urbanized Malay commercial, financial, and industrial community could take a generation or more; but it also acknowledged the truth of the Chinese proverb that the longest journey begins with a single step.

While it did not crystallize until later, the SMP also introduced into the development planning process the idea that a development plan should be integrated in space as well as in time and in the budget. The 'growth pole' concept was beginning to attract attention, and the idea of formulating a national plan as an integration of urban and regional plans was beginning to take shape. These ideas did not affect very much the SMP document; they came too late for that. The Johore Tenggara planning operation, which moved a long way towards integration of urban, regional and national planning, was barely started. The Pahang Tenggara plan, which incorporated the growth pole concept into its theoretical framework and consciously adopted a 'Unified Approach' which included integration of planning at all levels of government, was launched a year after the SMP started. But by the time the Economic Planning

Unit published its Mid-Term Review in 1973, the Johore Tenggara study was complete and the Pahang Tenggara study essentially finished. The latter study in particular was to have considerable influence on both national and regional planning, and to make a substantial (although as we shall see below an incomplete) contribution to integration of the two. The Mid-Term Review explicitly recognized the overlap between disadvantaged ethnic groups and regional disparities, calling for the correction of economic imbalances 'so as to reduce and eventually eliminate the identification of race with economic function and *geographic location*' (my italics). In short, as the EPU settled down to prepare the Third Malaysia Plan, they were thoroughly aware that the gaps between the richest region (the south-west) and the poorest (the east) were very large, and that the south-west had the smallest proportion of Malays and the east much the largest. Reducing disparities between ethnic groups was very largely a matter of reducing regional gaps (see Table 8.2).

The Third Malaysia Plan

In the final year of preparing the Third Malaysia Plan (TMP) for 1976-80, the EPU made a valiant effort to pull together all of its experience and thinking regarding urban, regional and national development planning into a truly integrated approach, an effort in which the present writer participated and helped to design. Like many other development planners at the time, we were frustrated by the disappointing results of The First Development Decade, in which even high rates of growth in some countries and very respectable growth rates in most LDCs failed to bring the wide and deep improvements in welfare that constitute true development. We were impatient with the highly aggregative Domar-like models that underlie so much of the planning of the 1960s, including Malaysia's, and we were convinced of the need to disaggregate. Sectoral dis-

TABLE 8.2
GRP Per Capita and Per Cent Malay Population

	<i>GRP per capita</i>	<i>% Malay Population</i>
South-west	M\$1,214	33.8
Central	778	34.3
North	615	54.1
South	660	50.1
East	500	82.3

Source: *Pahang Tenggara Study*.

aggregation had also been tried in the 1960s and it too had not worked very well. Meanwhile there was the highly seductive concept of growth poles within easy reach and virtually untouched.

To be fair to Malaysian planners, the application of the growth pole concept to national development planning in Malaysia was a good deal more cautious and sophisticated than it was in most other countries that tried it—and few indeed were the LDCs that made no use of it whatsoever. A very thorough study of the anatomy and functioning of the Malaysian urban system was made before the development-pole growth-centre structure ideal for achievement of national goals was defined and policies to produce it designed. Indeed the urban system of Malaysia may well have been better understood, in terms of its relationship to regional and national development, than any other in the world at the time. Out of these studies came a very clear strategy: policy should be designed to limit the industrial expansion and overall population growth of Kuala Lumpur and its satellite, Port Klang, to a level substantially lower than would emerge with no government intervention in that regard. The dynamics of the Penang area should not be disturbed by government policy; the current trends were about what they should be for achievement of national targets. Malacca needed a face-lift. Despite, or perhaps because of, its proximity to Singapore, Johore Bahru was not developing as it should. It seemed uncertain that the new deepwater port and international airport would lift Johore Bahru from its doldrums. In addition to the Johore Tenggara scheme there should be positive policies to stimulate commerce, industry, and finance in Johore Bahru. The big effort, however, should be concentrated on the East Coast, and particularly in Kuantan as the development pole for the whole of the region.

(This fundamental idea of designing the urban hierarchy so as to generate a pattern of regional development that would aggregate to the rate and structure of national development conforming to national objectives was the distinctive feature of the planning exercise for the TMP.) Not that the effort was reflected in its entirety in the TMP document. The analysis turned out to be more difficult and laborious than anticipated. Not everyone concerned was convinced that this novel way of assembling national plans was the correct one; some of us who began as enthusiasts ended as doubting Thomases. Nonetheless, we were on a new track, and with the exception of some rather basic but remediable errors to be identified below, it is still my view that it was the right track.

How one evaluates the degree of success or failure of the EPU's attempt to construct the TMP using urban and regional plans as 'building blocks' depends a good deal on what one feels was reason-

able to expect in the first place. Ove Simonsen was one of the architects of the new strategy. He had been a member of the Pahang Tenggara study team, and upon completion of that project moved to EPU as World Bank/UNDP Advisor on Regional Planning. He provided much of the intellectual leadership for the effort to integrate urban, regional, and national development planning into a grand design for the Third Malaysia Plan. His is certainly a view from within. In a paper prepared for a UNCRD Seminar in 1976 his frustration with the attempt is apparent:

Since independence in 1957, the Malaysian Government's concern with regional development, as an integral part of nation building, has progressed in three fairly distinct phases: from tacit recognition, to *ad hoc* regional development planning, and finally to explicit regional policy. It would be fair to say that it has yet to reach a stage in Malaysia where regional development plans are one of the 'building blocks' to national policy and plans. The three stages outlined above roughly parallel the first (1966-70) second (1971-75) and third (1976-80) plans (Simonsen: 1979: 2, 3, 7).

He deplores the limited 'leverage' of state and local government because of 'the tight federal control on financing and allocation of development funds' and concludes that 'in reality, regional development planning in Malaysia is a top-down affair'. Yet in speaking of the strategy of the TMP he succeeds in making it sound quite powerful:

Very broadly, the regional development strategy for the Third Malaysia Plan seeks to improve general welfare and economic opportunities in the poorer states, in particular Kelantan, Trengganu, Kedah and Perlis. It also seeks to intensify development of small to medium-sized towns in the east, north, and south in order to counterbalance the urban growth and activity concentration in the Klang Valley (Simonsen: 1979: 20).

Kamal Salih made a major contribution to the research effort underlying the attempt to construct the TMP with urban and regional plans as building blocks. His reaction to the result of this attempt is a good deal more positive than Simonsen's. He mentions the New Villages established during the Emergency period (1947-60) designed to resettle half a million Chinese as a move against Communist insurgency. However, he says, 'it is quite accurate to say that Malaysia never had a deliberate urban development strategy until some very recent experiments initiated in the Second Malaysia Plan (1971-5), guided by what is called the New Economic Policy'. This new strategy, he adds, 'can be expected to become a major pillar in the country's overall development strategy in subsequent plans'. It 'is associated closely with recent official awareness of the important role of regional development in national planning, and a policy shift from purely sectorally based planning, which has mark-

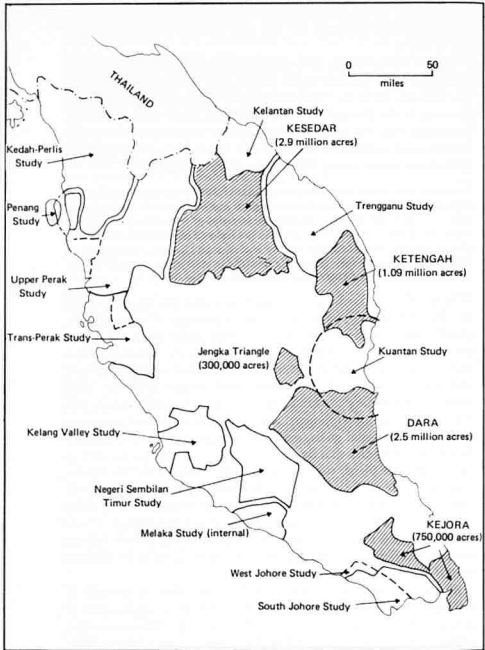
ed much of the country's development programming in the past. It is part, in fact, of what is now becoming a more definitive national policy for regional development, and even more of a national industrialization program for the next twenty years' (Kamal Saalih, 1979: 1).

Khalid Husin became active in regional and national development somewhat later than Simonsen, Kamal, and the present writer, and can therefore view the efforts at integration of regional and national planning in the Second and Third Malaysia Plans with a more dispassionate eye. He speaks of 'the special importance of regional development authorities as a strategic instrument of the NEP particularly in restructuring Malaysian society' and adds:

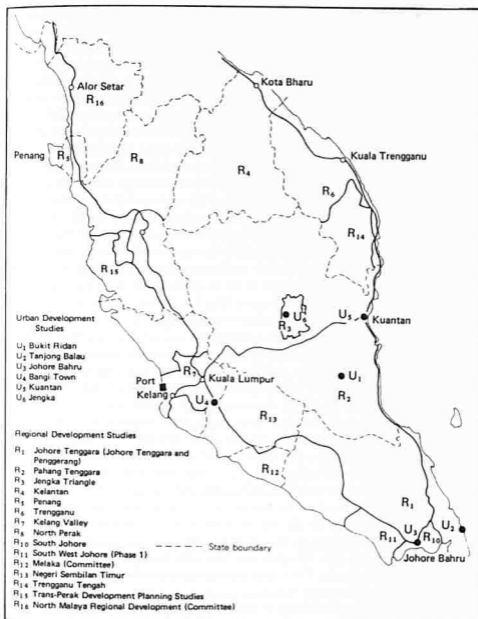
During their formative years, the pioneering DARA, KEJORA and KETENGAH regional development authorities were given special treatment that only the Office of the Prime Minister could ensure in terms of financial and manpower resources. Further, the critical role that the regional development authorities play in restructuring Malaysian society necessitated close monitoring and reviewing every step of their progress, especially in view of the political circumstances during the post-1969 racial riots (Khalid Husin, 1979: 5).

It is the present writer's own experience that the effort to build the Third Malaysia Plan with 'blocks' consisting of urban and regional plans was both sincere and competently executed. Given the objectives of the NEP and the high correlations among occupational structure, levels of income, concentration of ethnic groups, and the regions in which various social groups lived, the basic strategy of planning the urban structure so as to yield a target pattern of regional development, aggregating to a national plan consistent with national goals, made obvious good sense. The regional development studies that had been made and the authorities set up to execute the plans, together with those planned for the future, constituted powerful instruments for bringing about desired economic and social change. But the new strategy required a very sharp shift in direction in a very short time and our knowledge of how to steer the new course was far from complete. It was a bit like trying to turn a supertanker 180 degrees in the Suez Canal in 15 minutes with inexperienced pilot and crew.

There were several reasons apart from the sheer magnitude of the task why the effort to prepare the TMP as an aggregation of regional plans did not quite come off. One major reason was that when it came to putting together the various regional Master Plans it was found that they did not add up. For years, starting with JENGA and proceeding to Johore Tenggara (KEJORA), Pahang Tenggara (DARA), Negri Sembilan Timur, and others (see Maps 8.1 & 8.2) the Malaysian Government had been carving up the coun-



Map 8.1: Location of Regional Development Authorities in Peninsular Malaysia and Areas Covered by Various Master Planning Studies



¹Major urban-oriented land development schemes: R₁, R₂, R₃ and R₆.

²Other natural resource-oriented development schemes: R₄, R₈, R₁₁, R₁₃ and R₁₅.

Map 8.2: Urban and Regional Programmes, Projects and Studies

try into regions and assigning each to a particular foreign consulting firm for study and preparation of a Master Plan. The consulting teams came from a wide range of countries, had different backgrounds and compositions, used different approaches and techniques, and operated at different times. Fashions in regional planning methodology have changed rapidly during the past two decades and the changes are all too apparent in the series of Master Plans for Malaysia. Even when the studies overlapped in time, there was little contact among the teams, although the Canadian Pahang Tenggara team profited from contact with the British Johore Tenggara team and, we hope, the Norwegian team in Negri Sembilan Timur profited from the earlier experience of the Pahang Tenggara team. Provision for assuring common methodology and techniques and for integrating regional plans into national plans within the EPU or elsewhere in the Federal Government were totally inadequate for the task. The inevitable result was that when in the mid-1970s the EPU and the Malaysian Government decided to assemble the Third Malaysia Plan by adding up existing regional plans it proved virtually impossible to do so. (Governments of other LDCs embarking on a similar course, like Sri Lanka today, might well profit from Malaysian experience in this regard.)

A second reason for the incomplete success was that not all regions had yet been studied with the same intensity as the JENGKA, DARA, and KEJORA regions. A third reason was inadequate integration of regional planning with macro-planning within the EPU itself. The two divisions were composed of different people, with rather different trainings and experience, assisted by different groups of foreign advisors who also had different trainings and experience. The amassed expertise of the various regional Study Teams and Authorities was more than the overworked regional planning division in EPU could handle, and perhaps made the macro-planners all the more determined to go their own way. And since their way was relatively well trodden, it was inevitable that EPU as a whole would tend to choose their path when the regional planners stumbled on their rougher and less well known road. That road was full of pitfalls. The urban studies contracted by EPU to various University groups proved to be much more complex and laborious than expected, resulting in delays in completion and inability to incorporate them completely into the TMP. In short those planners who, like the present writer, were enthusiasts for the use of urban and regional plans as building blocks were somewhat starry-eyed in their naivety regarding logistics.

The final reason for the incomplete translation of the theory regarding an integrated urban-regional-national development strategy

into an implementable Third Plan was that the development pole/growth centre concept on which it was based turned out to be rather vague. The whole strategy depended upon the Government's ability to design a fairly simple system of incentives and disincentives to manage the growth of the urban structure. The relative growth rates of various urban centres would then govern the strength of the spread effects from each centre to its peripheral region, thus determining the pattern of regional development. Precisely how these spread effects were to be generated was not altogether clear; the impact of establishing 'propulsive industries' in development poles and growth centres was to take place more or less automatically through market forces. This lack of clarity concerning the mechanism of spread effects became more serious in the implementation phase, as we shall see below. But even in the planning phase it held matters up because it led to endless debate, and deepened the scepticism of those Malaysian development planners who were not sold on the new strategy in the first place.¹

Despite these obstacles, an heroic effort was made to utilize the urban-regional-national integration strategy in evaluating projects for incorporation into the TMP, as Ove Simonsen's description of the process shows. Criteria for allocating development funds to regions and states were selected on the basis of national and regional socio-economic objectives, the absorptive capacity of regions and states, and the availability of data that would permit the criteria to be applied. With respect to objectives underlying 'stress ratios' applied to each region, the maximum assumption was that per capita income among regions should be equalized by 1990, and the minimum assumption was that per capita incomes of states below the national average in 1970 should be within 10 per cent of the national mean by 1980; an ambitious enough target. Each regional indicator was measured against the national average and the stress determined according to the deviation from this average.

Thus when Ove Simonsen says that the regional plans were not the only 'building blocks' utilized in preparing the Third Plan he does not mean that the urban-regional-national interaction strategy was abandoned. On the contrary, it is clear from the brief review of the methodology presented above that consideration of these interactions was at the very core of the entire planning exercise. The TMP took the EPU a long way towards using urban and regional plans as building blocks, and in preparing the Fourth Malaysia Plan this approach has been carried further still.

¹ For an analysis of development pole/growth centre theory, see Benjamin Higgins, 1978.

IMPLEMENTATION

Whatever the tribulations encountered in assembling the TMP, it was in the implementation phase that the real difficulties connected with the new strategy embodied in the Plan appeared. One reason for the failure of the TMP to achieve even the minimum target with respect to regional disparities and the closely related targets regarding disparities among ethnic groups was once again inadequate integration. Just as in the planning phase each regional Master Plan was reviewed by its own Steering Committee with little consideration of the content of other Master Plans, so implementation was entrusted to separate Regional Authorities with virtually no contact with each other. In effect all the Authorities were competing against each other, within the limits of their budgets, and with the private sector, for scarce resources. Each authority showed a 'single-mindedness of purpose', as Khalid puts it, and insufficient flexibility in departing from its Master Plan when conditions proved to be different from those anticipated when the Plan was written. Moreover, just as there was no adequate machinery for integrating the various exercises in the planning phase, so there was no agency with both the power and the wisdom to arbitrate between rival Authorities, in the national interest, in the implementation phase. Before 1976 the task was assigned to the Implementation and Co-ordination Unit of EPU, in the Prime Minister's Office; but this Unit did not have staff enough to deal with conflicts in demands on resources amongst Regional Authorities, State governments, and the host of Federal departments *before* they arose. By the time the conflicts reached the attention of the Prime Minister's Office long delays had occurred and much harm had been done. In 1976, with the launching of the Third Plan, a new Ministry of Land and Regional Development was established and assigned certain responsibilities for monitoring implementation of regional development plans. The fourth regional development authority, KESEDAR, was established under this Ministry in 1978. How this new system is *supposed* to work is suggested by Figure 8.1. How much it helped the implementation process in practice is difficult to say. Certainly it added some highly qualified people to the management and monitoring operation to share the task with the overworked Implementation Co-ordination and Unit; but it also, by the same token, further complicated the operation.

The Rise and Fall of Growth Poles

When it comes to the shortfall of the TMP in meeting its objectives regarding regional and ethnic disparities, however, the main

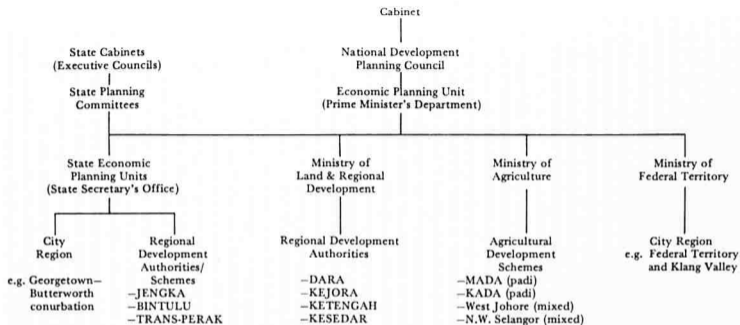


Figure 8.1: Administrative Framework for Regional Development

difficulty was not a failure to implement well construed plans but the flaws in the theory underlying the plan strategy itself. With some exceptions to be noted below, the direction of change in the urban structure which took place was in accordance with the plan. This statement applies with special force to Kuantan, the selected development pole for the East, which did indeed enjoy a boom during the Third Plan period. Its population nearly doubled and the quality of its economic activity was upgraded substantially at the same time. But the expected spread effects did not ensue. In particular the states of Kelantan and Trengganu, with their low incomes, their survival of small-scale peasant agriculture, and their heavy concentrations of Malays, were little affected by the Kuantan boom.

In defence of Malaysian planners, let it be said that they were far from being alone in the application of the growth pole concept to regional and national development planning in the early 1970s. Few indeed were the less developed countries that made no use of the concept whatsoever, and in many of them it became the hard core of their development strategies as it did in Malaysia. A good many advanced countries applied it too. And in defence of François Perroux, the father of growth pole theory, let it be said that the concept of growth poles that was applied was not his but an adulteration of it. Perroux's concern in introducing the concept was to continue his battle against neo-classical economics and to insist that an unhampered (or unmanaged) free market would lead, not to a balanced distribution of economic activity in space but to polarization. For him a 'pole de croissance' was not an urban centre as such but a cluster of 'propulsive industries' generating spread effects, which are likely to be but need not be in cities. Most important, he did not imagine that the spread effects emanating from such growth poles would normally be concentrated in their own peripheral regions. On the contrary he was rather contemptuous of anyone who expected spread effects to take place in 'banal' or geographic space and insisted upon replacing this concept with one of 'economic space'. The latter concept was highly abstract, 'space as a field of forces', discontinuous and widespread to the point of being world wide, 'as many spaces as there are structures of abstract relations which define an object'. Of course such a concept of growth pole is highly non-operational, and when disciples of Perroux like Jacques Boudeville became involved in applied regional planning operations they simply changed the concept into one of urban centres, into which new propulsive industries can be pushed or pulled by investment in infrastructures and incentives to private enterprise, and which will automatically generate spread effects to

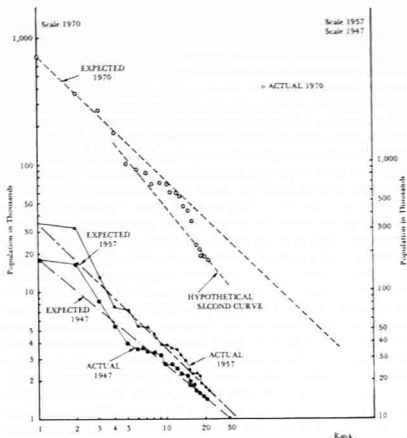
their own peripheral regions. It was this theory of growth poles that was seized with such enthusiasm, in Malaysia and elsewhere, when at the end of the First Development Decade there was a general revulsion against the highly aggregative macro-models typical of development planning in the 1960s, and disaggregation in space became fashionable.

Unfortunately this theory of growth poles can apply only in a particular stage of regional and national development, the intermediate stage when industrialization and urbanization is based upon exploitation of natural resources, and consequently industries locate and cities grow where the natural resources are. In this stage the growth of industrial activity in the cities can indeed generate employment and income in the peripheral region. But in earlier stages of development when the great majority of the population of the region are engaged in agriculture (as is still the case in Malaysia's North-east) it is expansion of economic activities in the countryside that creates opportunities in the urban 'central places', not the other way around. And in a later stage when the propulsive industries are no longer iron and steel, pulp and paper, and textiles but electronics, scientific instruments, computer technology, consulting services, and management more generally, the link of the urban centre to its own 'banal' geographic region is broken. Its propulsive industries operate in discontinuous, world-wide economic space. The major metropolitan centres in particular become once again 'central places', responding to developments in other cities throughout the world, and diffusing innovations throughout a global urban structure. Ironically enough, with this 'stage theory' of development poles/growth centres, a small town like Muadzam Shah, with industries growing up to process the expanding output of Pahang Tenggara, may serve better as a 'development pole', in this sense of generating spread effects to its own immediate hinterland, than Kuantan or Kuala Lumpur. Such cities do not, however, conform to the concept of development poles as creators and diffusers of advanced new technology. In today's world these two functions tend to be performed by different urban centres and to differ a great deal both in size and in quality.¹

Weaknesses in the Malaysian Urban Structure

One reason why attraction of new industries to 'development poles' may be less effective in diffusing growth throughout the entire urban hierarchy in Malaysia than elsewhere is that the urban struc-

¹ For an analysis of the history of the growth pole concept, see Higgins and Honjo, 1980.



Source: Reproduced from the *Pahang Tenggara Study, c: Settlements and Infrastructure*, Figure 1.2a.

Figure 8.2: Urban Structure: Actual and Expected, 1947, 1957 and 1971

ture itself is defective. As may be seen in Figure 8.2, showing size of cities on the vertical axis and their ranks on the horizontal axis on a double-log scale, the Malaysian urban hierarchy is moving closer to adherence to the 'rank-size rule' as time goes by.¹ However, as is clear from the diagram, Malaysia is short of cities in the 100,000–250,000 category, and the cities at the lower end of the population scale are abnormally small. Table 8.3 shows the weakness of cities in the 1,000 to 5,000 and 10,000 to 30,000 categories in terms of growth during the 1960s, and the low rate of urbanization in general

¹In effect the rank-size rule says that the second biggest city will be half the size of the biggest, the third biggest one-third the size, etc. If conformity to the rule were perfect all cities would lie on the straight line.

TABLE 8.3
Average Growth Rates by Urban Hierarchy, Peninsular Malaysia

Urban Centres ¹	No.	1947	1957	1970	Per Cent Growth Per Annum		
					1947-57	1959-70	1947-70
Above 100,000 ²	5	518.3	884.2	1,330.4	5.5	3.2	4.1
50,000-100,000 ²	9	293.4	417.9	607.1	3.6	2.9	3.2
30,000-50,000	4	64.2	114.1	167.2	5.9	3.0	4.3
20,000-30,000	7	65.9	132.1	172.2	7.5	2.0	4.4
10,000-30,000	16	87.1	224.4	285.6	10.0	1.9	5.3
5,000-10,000	59	3,882.1	300.0	433.3	1.5	2.9	2.1
1,000-5,000 ³	298		534.0	702.0		2.1	
Less than 1,000 ³	-		3,671.8	5,112.3		2.6	
Peninsular Malaysia		4,909.0	6,278.8	8,810.3		2.6	

Source: Reproduced with permission from Simonsen, Table 1-3.

¹ Defined as those towns which reached the respective classification in 1970.

² Population of major towns and cities does not include all conurbation areas—thus growth figures are slightly understated in the upper hierarchies.

The following conurbations are included:

—Bukit Baharu & Kelebang in Malacca

—Gelugor & Tanjung Bunga in Penang

—Gunong Rapat, Pasir Pinggi, Guntong & Kampong Simee in Ipoh

—Prai & Permatang Kuching in Butterworth

³ Subject to variation because some centres are gazetted in 1970 but not in 1957 and vice versa.

TABLE 8.4
Urbanization by State and Region, 1970

<i>Geographical Area/ State</i>	<i>Total Population (^{'000})</i>	<i>Urban Population (^{'000})</i>	<i>% Urbanized</i>	<i>Number</i>	<i>Average Town Size (^{'000})</i>
1. South-West	2,516.3	938.4	37.3	10	93.8
Malacca	404.1	101.5	25.1	1	101.5 ¹
Selangor	1,630.7	733.2	45.0	6	122.2
N. Sembilan	481.5	103.7	21.5	3	34.6
2. Central Perak	1,569.2	431.8	27.5	8	54.0
3. North	1,851.4	515.7	27.9	8	64.5
Penang	775.4	395.0	50.9	5	79.0
Kedah	955.0	120.7	12.6	3	40.2
Perlis	121.0	—	0	0	0
4. East	1,596.7	308.6	19.3	12	25.7
Kelantan	686.3	103.3	15.1	5	20.7
Trengganu	405.5	100.5	27.0	3	36.5
Pahang	504.9	95.8	19.0	4	24.0
5. South Johore	1,277.0	336.0	26.3	7	48.0
Total	8,810.3	2,530.5	28.7	45	56.2

Source: Reproduced with permission from Simonsen, Table 2-1.

¹Includes conurbation.

TABLE 8.5
GDP Per Capita, Sectoral Shares of GDP and
Urbanization by State, 1970

	GDP		Sectoral Shares ¹			Urban Share ²
	per capita (\$)	Index	A	I	S	of Population (%)
Selangor	1,520	167	14	38	48	45
Penang	939	103	18	22	60	51
Perak	911	100	29	35	36	28
Negeri Sembilan	907	99	37	25	38	21
Pahang	855	94	42	23	35	19
Johore	835	92	40	21	39	26
Malacca	761	83	31	10	59	25
Kedah/Perlis	605	66	58	12	30	13
Trengganu	536	59	38	22	40	27
Kelantan	420	46	43	12	45	15
Pen. Malaysia	912	100	29	28	43	29

Sources: Malaysia, 1970. Malaysia, (n.d.) g.

¹Sectors: A: agriculture, forestry, fishing

I: mining, manufacturing, construction, utilities

S: transport, commerce, government, other services

²Minimum urban concentration: 10,000 persons.

in that period. It is also clear from Table 8.4 that urbanization has been a particularly slow process in the poorer states of the East. Lest any reader think that the rate of urbanization is unimportant in regional and national development, let him glance at Table 8.5, which shows all too clearly the close relationship between urbanization and GDP per capita. One reason for this high correlation is

TABLE 8.6
Relationship Between City Size and Resource-based
Manufacturing Industries

City Size	Resource-Based Mfg. as Per Cent of Total Mfg. Employment
5,000	63
5-10,000	54
10-15,000	76
15-30,000	39
30-50,000	30
50-90,000	39
90,000+	12

Source: J. J. O'Callaghan, 1971: 3.

that the sophisticated services of the tertiary sector and the technologically advanced industries of the secondary sector tend to prefer the larger cities, in Malaysia as elsewhere. Some evidence of this tendency is provided by Table 8.6. There can be little doubt that in order to carry out the sort of development strategy underlying the Third Plan, the entire urban structure, and not just a few 'growth poles' must be strengthened.

The Pahang Tenggara Case

The flaws in Malaysian development planning and implementation during the period of the Third Malaysia Plan are well illustrated by the case of Pahang Tenggara and its Regional Development Authority, DARA. The present writer was Senior Economist for the Pahang Tenggara study and had much to do with shaping its analytical framework. Criticism is therefore largely self-criticism, always more palatable than criticism of others.

The Pahang Tenggara case is of considerable interest in itself and has attracted attention both within and outside Malaysia. One reason for this interest is the sheer scale of the undertaking. As may be seen from Tables 8.7 and 8.8, DARA is much the biggest of the Malaysian regional development authorities in terms of budget or manpower. Even on the international scale it is surely one of the biggest undertakings of its kind. The Master Plan cost some US\$4 million at 1971-3 prices, and was expected to require investment, public and private, totalling close to US\$1 billion to execute it. It involved clearing and settling nearly 0.5 million hectares of land and settling more than 500,000 people in an area then containing an estimated 55,000. The Plan called for construction of 36 new towns varying in size from 5,000 to 70,000 people, introducing a much more urbanized pattern of settlement than was typical of the earlier FELDA schemes, a pattern which later became the model for other frontier region development schemes as well.

Another reason for the interest was that in large measure the project broke away from traditional planning approaches. The writer was at the time also a member of the research team set up by the United Nations in Geneva to put content into the new concept of 'The Unified Approach to Development Planning', and the Pahang Tenggara project became one of the first to make a conscious effort to apply this approach at the regional level.¹ It was deliberately designed to make a major contribution towards achievement of the social and political objectives of the NEP and gave a great

¹ For a more detailed analysis of the Pahang Tenggara project, see Benjamin Higgins, 1976 and 1979.

TABLE 8.7
Financial Allocation for Resource Frontier Development,
1971-1980
(M\$ million)

Projects	Second Malaysia Plan (1971-1975) Allocation			Third Malaysia Plan (1976-1980) Allocation				Total Allocation (1971-1980)			
	DARA	KEJORA	KETENGAH	DARA	KEJORA	KETENGAH	KESEDAR	DARA	KEJORA	KETENGAH	KESEDAR
Operating Expenses_/	3.75	3.09	1.8	31.0	15.3	17.95	5.15	34.75	18.39	19.75	5.15
Development Expenditure:	102.0	74.24	5.3	427.78	203.03	133.89	38.99	529.78	277.27	139.19	38.99
Infrastructure_/	35.0	20.64	1.0	162.62	51.69	68.17	1.45	197.62	72.33	69.17	1.45
Housing*	-	-	-	60.0	16.2	11.84	-	60.0	16.2	11.84	-
Roads_/	29.0	29.0	-	115.09	77.04	-	7.12	144.09	106.04	-	7.12
Water Supply	8.0	8.0	-	33.01	28.08	13.11	-	41.01	36.08	13.11	-
Electricity_/	-	-	-	19.39	4.58	6.08	-	19.39	4.58	6.08	-
Loans	30.0	16.6	4.3	37.67	25.44	34.69	0.3	67.67	32.04	38.99	0.3
Land Development Schemes*	-	-	-	-	-	-	30.12	-	-	-	30.12

Source: Federal Budget 1980.

Note: _/ = grants * = loans

US\$1.00 = M\$2.4 approximately

TABLE 8.8
Manpower Allocation in Regional Development Authorities, 1979

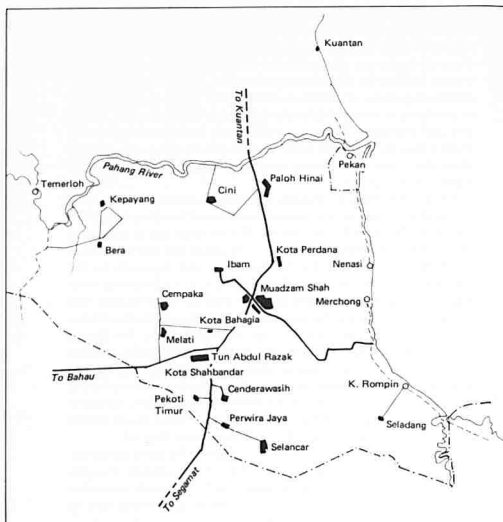
<i>Grades</i>	<i>DARA</i>			<i>KEJORA</i>			<i>KETENGAH</i>			<i>KESEDAR</i>		
	<i>No. of Posts</i>	<i>Filled</i>	<i>Vacant</i>	<i>No. of Posts</i>	<i>Filled</i>	<i>Vacant</i>	<i>No. of Posts</i>	<i>Filled</i>	<i>Vacant</i>	<i>No. of Posts</i>	<i>Filled</i>	<i>Vacant</i>
A. Managerial & Professional Expatriate Officers	85	68	17	33	24	8	29	20	9	20	14	6
B. Executive & Semi Professional	5	5	—	3	3	—	8	3	5	—	—	—
C. Clerical & Technical	56	52	4	26	23	3	16	13	3	13	8	5
D. Industrial & Manual Group	185	151	34	96	88	8	63	60	3	78	42	36
Total	299	178	121	173	140	33	66	37	29	55	30	25
	635	504	176	331	278	52	182	133	49	166	94	72

deal of weight to the improvement of the physical and socio-cultural environment, as well as incorporating such traditional objectives as raising levels of income and employment. Indeed it was the insistence on improving the 'quality of life', as viewed by the potential settlers studied in the sociological survey, that led to the more urbanized pattern of settlement. It was also found that the savings in provision of acceptable levels of housing, health services, education and recreation facilities, by attracting settlers to larger urban centres than the earlier FELDA schemes provided, much more than offset the costs of providing motorized transport from home to plantation.

Finally, the Pahang Tenggara scheme was of interest because it provided an experiment in 'spatial engineering' based on a modified version of the growth pole theory. The strategy was to utilize the development of Pahang Tenggara to strengthen the city of Kuantan as the development pole for the East Coast and especially for the retarded North-east. In line with this strategy every effort was to be made to avoid linking Pahang Tenggara with the existing main axis of development running between the mountains and the West Coast from Penang through Kuala Lumpur to Johore Bahru. The Master Plan accordingly gave high priority to early development of Bukit Ridan, since renamed Muadzam Shah, as the regional capital; and to linking it with Kuantan by road and telecommunications, leaving until later, when northwards flows were well established, the development of the region's secondary city of Tun Abdul Razak and its road system linking it to the West and South (see Map 8.3).

When the region was visited in September 1979, the implementation of the Master Plan was running far behind schedule. Progress had been made in clearing and planting land. Two modern forestry complexes, one North and one South, were operating a total of 106 000 hectares; another 102 000 hectares, mainly in the southern portion of the region, were planted with oil palm. Palm oil was the major regional export, and was being shipped out from the ports to Johore Bahru to the South and Klang to the West. There were some cattle and very little rubber. But only 12,300 workers had immigrated into the region, plus five thousand working as construction workers and on private estates under contract, many of whom would leave again when their current job was completed. Permanent settlement of farmers had scarcely begun. Because of delays the target for settlement had been scaled down from 500,000 to 380,000. The number of urban centres had been cut from 36 to 32.

Finally, the experiment in spatial engineering had been totally abandoned. Precisely the opposite pattern of development from that envisaged in the Plan was taking place. The South-western



Map 8.3: DARA (Pahang Tenggara) Settlement Pattern and Roads

portion of the region, clearly linked to the existing axis of development to the West and South, was developing more rapidly than the North-east portion. Muadzam Shah, planned as the major urban centre had only 2,000 people, while Tun Abdul Razak, planned as a secondary centre, already had 10,000 people. Certainly development of the region was having an impact on the growth of Kuantan, but the major linkages were with the richer and more developed regions, not the disadvantaged North-east.

This abandonment of the key strategy of the Master Plan was partly deliberate and partly accidental. Serious technical problems developed with the new deepwater port at Kuantan. Its opening

was delayed and it was therefore the natural thing to ship exports of the region from Johore Bahru to the South and Klang to the West. Changes in relative prices made oil palm more attractive than rubber and most oil palm planting was planned for the South. Another factor favouring oil palm was the unexpected labour shortage; in the early years oil palm is less labour-intensive than rubber. Still another unplanned element in the faster development of the southern part of the region was that the Japanese contractors assigned the southern roads proved to be more efficient than those assigned the northern ones.

More fundamental than these more or less accidental factors, however, was the loss of faith in the growth pole strategy itself. As mentioned above, Kuantan became a boom-town in the 1970s, but not primarily because of events in Pahang Tenggara. It also soon became apparent that the growth of Kuantan was having only a negligible impact on alleviation of underemployment and poverty in Kelantan and Trengganu. Some people migrated from the north-east to take jobs in Kuantan, and that was about the extent of the 'spread effects'. When it became clear that the growth of Kuantan was not determined by the pace of development in Pahang Tenggara, and generated only weak spread effects to the retarded North-east, the temptation to abandon the elaborate strategy of the Master Plan in favour of the much simpler strategy of developing Pahang Tenggara as a frontier region, in such a way as to maximize its output, must have been well-nigh irresistible. Under the circumstances the shift in strategy involved no great loss for Malaysia and certainly lightened the burden on DARA's managers. It also means, however, that DARA's contribution to the achievement of the goals of the NEP will be largely limited to affording a better life to Malays who immigrate into the region. Meanwhile industrial expansion has replaced frontier development as the spearhead of Malaysia's overall development. Problems of poverty and underemployment in the North-east and elsewhere are wisely being tackled directly by interventions within the disadvantaged areas themselves, as instanced by KETENGAH and KESEDAR. With completion of the new East-West road from Penang to Kota Bharu, it is likely to be Penang, with which cultural ties already exist, that will play the role of 'development pole' to Kota Bharu rather than Kuantan.

In retrospect, our approach to 'spatial engineering' in Pahang Tenggara was far too simplistic. We were certainly not alone in such naive applications—or misapplications—of growth pole doctrine, but if we cannot learn from each others' mistakes we shall make little progress in development planning in Malaysia or anywhere else. Pahang Tenggara provides two very important lessons:

1. In order to plan urban growth so as to yield a target pattern of regional development which adds up to the desired rate and structure of national development, it is not enough to push or pull a few 'propulsive enterprises' into a few urban centres designated as 'growth poles'. The entire hierarchy of cities and regions must be both planned and managed together as a single system.

2. If development plans for individual regions are assembled and implemented in isolation from each other, it is almost certain that the responsible authorities will find themselves competing for scarce resources with consequent confusion, waste, and delays. More critical than finance in this regard are likely to be even scarcer resources such as skilled workers (including construction workers), construction and other specialized equipment, scientific and technical personnel, managers and entrepreneurs, and perhaps above all the time and energy of hard-pressed government officials. While one might think this 'lesson' is too obvious to bear repeating it is ignored by one government after another, including Sri Lanka today, where much of this paper was written.

DEVELOPMENT PLANNING IN SABAH AND SARAWAK

When the Third Malaysia Plan was launched, the states of Sabah and Sarawak, was still a relatively empty frontier area, more so even than Pahang or Johore. With about 16 per cent of Malaysia's total population, the region had over 60 per cent of the country's total area and about half of its developed area. Sarawak in particular, with 1.1 million people on 30.7 million acres of land—nearly 40 per cent of the country's total—was thinly settled. About 40 per cent of Malaysia's forests were also in Sarawak, another 25 per cent in Sabah. These forests were, and were expected to remain, important sources of employment and income, especially in Sarawak. Mining, including offshore oil and gas, was on the verge of a rapid expansion. Sabah alone had as much land suitable for agriculture and still available for development as the whole of Peninsular Malaysia, and Sarawak had two and a half times as much land in that category as did Sabah. Even more than in Peninsular Malaysia, therefore, development planning in Sabah and Sarawak was largely a matter of land use planning, and 'development' largely a matter of frontier resource development.

The two states differed a good deal with respect to level of prosperity. In 1975 the ratio of per capita GDP to the national average was 1.2 for Sabah and 0.8 for Sarawak. As reported in the *Mid-Term Review for 1976-78* Sabah had the highest rates of growth of per capita GDP of all states during the years 1976-8, 11.7 per cent,

nosing out even burgeoning Pahang at 11.3 per cent. Sarawak's growth was much slower but still very respectable: 4.3 per cent. By 1978 the ratio of per capita GDP to the national average had risen to 1.31 in Sabah, but had fallen slightly to 0.76 in Sarawak.

Plans for development of the region call essentially for more of the same: continued activity in forestry industries; opening up new land to agriculture, but with relatively little acreage under oil palm and rubber and more in other agriculture than on the Peninsula; continued exploration and development in the mining sector. They also, however, call for rapid expansion of industry, especially industries closely related to the primary sector like forest products and fertilizer, if from a rather small initial base.

If plans for government intervention in Sabah and Sarawak seem less detailed and less extensive than in some of the states on the Peninsula, it may be partly because of the well-known capacity of the Dayak culture to produce vigorous entrepreneurship, especially in trading activities. It is interesting to note that value added per capita in commerce is higher than the national average in Sabah, and even in Sarawak, with its thinly spread population, it is higher than in most states. The present writer still remembers how impressed he was to find on the shelves of the sampans of itinerant Dayak traders, far up the Borito River, Australian butter, California oranges, and other imported products for sale to the villagers.

In the course of a mission undertaken for the United Nations a few years ago concerning training of Malaysian development planners, the author had occasion to visit the state planning organization in Kuching. It was an exhilarating experience. Isolation from the Peninsula and from the Federal government has advantages as well as disadvantages. Left more to themselves than most state or regional planning authorities, the planners in Sarawak reflect the unmistakable vigour and dynamism of the state's small but bustling capital city, and necessarily become more self-reliant than most of Malaysia's planning units. In the course of my mission I found no state or regional planning authority with a higher level of general competence, better organized, or harder working; and certainly none with a more thorough commitment to the task at hand. The sense of excitement pervading the planning office seems certain to bear fruit in the form of improved levels of welfare for the people of Sarawak as time goes by.

CONCLUSIONS

Malaysia provides a praiseworthy example of effective development planning within a parliamentary democracy, a federal constitution, and a mixed economy with private enterprise predominant but the

Government nonetheless playing a significant role. Malaysia might be regarded as a 'planful society', to use the felicitous expression suggested by Dr Charles Reed, Senior Vice-President for Corporate Strategic Planning of the General Electric Company, to distinguish centrally planned economies from those in which responsibility for planning is diffused throughout the economic and social system, with a common and shared perception of objectives to be attained. It is also an example of the 'multi-level planning' which Dr Masahiko Honjo, believes holds the key to efficient democracy in the future (Honjo, 1980). Malaysian society relies primarily upon private enterprise to guarantee economic growth, which permits Government to attach high priority to social justice among ethnic and social groups in its own efforts to promote development. Because of the overlay of disadvantaged groups with retarded regions, the attempt to move towards greater social justice has been translated into an attack on regional disparities.

As we have seen above, in the course of formulating and implementing regional development policy mistakes have been made. There has been insufficient integration in both the planning and the implementation phases. The whole planning process has been and remains 'top-down' to an uncomfortable degree. Together with other developing countries Malaysia pursued for a time a regional development strategy based on a rather simplistic growth pole theory. Macro, regional, and sectoral planning has been inadequately co-ordinated. But with respect to all these flaws, lessons have been learned and improvements have been made.

The Fourth Malaysia Plan, to begin in 1981, was presumably complete at the time this essay is written. The writer is not privy to its content. He would hope—and from discussions with Malaysian planners he would predict—that it goes a long way towards eliminating the weaknesses of the past while building on its strengths. With a continually more sophisticated EPU, strengthened by the relatively new Ministry of Lands and Regional Development, with well-staffed Regional Development Authorities and State Economic Councils, the groundwork for effective co-operation within a system of multi-level planning has been laid. As wiser if sadder men the whole coterie of development planners in Malaysia can be expected now, not to throw out the baby with the bath water by abandoning altogether the basic urban-regional-national-interactions strategy launched with the Second Plan and strengthened in the Third, but to recognize that it is not enough to build generators; there must also be transmission lines and strong reactors at the other end. As stated above, the whole system must be planned and managed as a unit, a fact that is now understood by Malaysian planners. Finally,

there is now a move towards bottom-up planning that would involve the target population in both planning and implementation of development. If Malaysia succeeds on all these fronts it can provide a model for other societies wishing to follow a similar path, embracing neither communism nor unbridled capitalism, and pursuing the welfare of all social groups within a democratic system.

9 Trade and External Relations

INTRODUCTION

MALAYSIA, as a developing country, is unique. Its economy is relatively open and more than 90 per cent of its major primary products, such as rubber, palm oil and tin are exported. In recent years, manufactures have assumed growing importance and at the end of the 1970s provided over 20 per cent of Malaysia's exports. As a result, Malaysia has become one of the twenty largest exporters of manufactured goods in the world. Also, because of the price premium that Malaysia's low sulphur light crude oil commands, the country is also a net exporter of crude petroleum. However, the favourable trade configurations of the 1970s will change as Malaysia continues to develop and industrialize, thereby increasing its imports of capital goods and its energy requirements. As a consequence, Malaysia may become a net importer of petroleum by the end of the 1980s.

This chapter discusses the critical economic issues facing Malaysia's domestic development, international trade and external relations. Section I reviews Malaysia's development experience since World War II, which saw the growing importance of manufacturing and construction as growth sectors, and the still buoyant growth of the more traditional resource-based primary commodities, namely rubber, oil palm, timber, tin and most recently, petroleum. Section II assesses the prospects of Malaysia's major exports, the proportion and composition of its imports, and the bilateral and multi-lateral linkages with the various international trade groups and geopolitical blocs. Finally, since international trade is integrally linked to international finance, Section III reviews Malaysia's balance of payments, its external reserve position and the strength of the Malaysian ringgit.

RECENT EXPERIENCE IN TRADE AND DEVELOPMENT

Historically, Malaysia's natural endowment in land, climate, soil and people resulted in its pre-eminent position as the world's leading producer and exporter of rubber and tin. However, such heavy dependence on these two primary exports also had its problems. In the 1950s, these two commodities accounted for more than 80 per cent of the country's gross export earnings. However, the booms and depressions resulting from the export price fluctuations, of which Malaysia had little direct control, created instability in the domestic economy.

After Independence, to reduce its economic vulnerability, Malaysia embarked on a two-pronged strategy, which was implemented from the late 1950s through the 1970s. Firstly, it diversified and expanded its agricultural resource-base by increasing the replanting and new planting of rubber, the new planting of oil palm, the extraction of hardwood timber, the opening up of new riceland and by the improvement of irrigation and drainage facilities. Secondly, it encouraged the local manufacture of consumer goods such as beverages, textiles, transport equipment, chemical and non-metallic products, all of which had previously been imported. As a result, Malaysia was able to continue to increase its agricultural exports and at the same time to decrease its import of rice and consumer goods.

In the early 1970s, in recognition of the limited employment capacity and expansion potential of these import-substitution manufacturing industries, Malaysia re-oriented its industrialization strategy to attract 'footloose' export-oriented industries which would find Malaysia's relatively abundant and low-cost labour attractive, and also to develop new resource-based downstream industries which would utilize its major primary products.

As was to be expected, the changes in relative size of the different sectors of the economy were also reflected in changes in import and export patterns. The Government provided fiscal incentives and protection through tariffs and quotas, which stimulated an impressive rate of growth in the value added in manufacturing for import replacement. As a consequence, these 'pioneer' consumer-goods industries contributed significantly to the growth and development of the economy despite a limited capacity to absorb labour. At the same time, this provided valuable experience for Government policy-makers and for the business sector to 'graduate' into more capital-intensive and sophisticated industries in subsequent years. In addition, the Government, through the various Five-Year

Plans, expanded and improved the country's transport, financial, communications and other infrastructure as well as the educational and manpower training programmes.

EXTERNAL TRADE

The economic challenge Malaysia faces in the 1980s will be markedly different from that of the 1970s. Accordingly, this section discusses the prospects of Malaysia's imports by economic function, its exports commodity-by-commodity, and then their impact on the country's economy.

(a) Imports

In the 1970s, there was a decline in the proportion of consumption goods in gross imports (Table 9.1). This was a result of the import-substitution strategy implemented in the 1960s. Towards the end of the 1970s, the high levels of public expenditure and investment together with buoyant commodity prices led to a considerable increase in domestic aggregate demand and imports of all categories of goods, including consumer goods, also rose sharply. However, despite the sharp increase in the absolute value of consumer goods imports, their *proportion* in total imports continued to fall. In 1979, intermediate goods accounted for the largest share (47.1 per cent), followed by investment goods (30.6 per cent), and consumption goods (20.1 per cent).

The growth in imports of intermediate goods was due to the continued expansion of more capital-intensive and more sophisticated manufacturing industries, principally in vehicle assembly, electronics, chemicals, foods and plastics. About 60 per cent of the intermediate goods imports were construction materials and components for use in such industries. For the agricultural sector, the main increase in imports was fertilizer.

Imports of investment goods also rose significantly, both in proportion and in total value. Although domestic output of construction materials increased, iron and steel products and non-ferrous metals were imported to support the construction industry, which grew by nearly 40 per cent in the two-years from 1977 to 1979. Other major imports in this category included machinery for mining, construction and manufacturing and commercial vehicles.

At the beginning of the 1980s, the food processing industry accounted for 17 per cent of the nation's total manufacturing, and this will continue to expand by processing most of the beverages, tobacco, sugar, dairy products, biscuits, edible oils, grains and rice which were previously imported. Hence gross imports of food,

TABLE 9.1
Malaysia: Gross Imports by Economic Function

Items	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
Consumption Goods	1,212	28.0	1,720	20.0	3,435	20.1
Food	490	11.3	615	7.2	1,115	6.5
Beverages and tobacco	74	1.7	85	1.0	189	1.1
Consumer durables	134	3.1	260	3.0	795	4.7
Others	1,514	11.9	760	8.8	1,336	7.8
Investment Goods	1,152	26.6	2,740	31.9	5,212	30.6
Metal Products	283	6.5	550	6.4	1,485	8.7
Transport equipment	151	3.5	250	2.9	431	2.6
Machinery	455	10.5	950	11.1	1,619	9.9
Others	263	6.1	990	11.5	1,605	9.4
Intermediate Goods	1,572	36.4	3,726	43.4	8,035	47.1
for agriculture	158	3.6	330	3.9	732	4.1
for manufacturing	893	20.7	2,017	23.5	4,831	28.3
for construction	83	1.9	170	2.0	420	2.5
Petroleum	215	5.0	665	7.7	1,222	7.2
Others	223	5.2	544	6.3	830	4.8
Imports for re-export						
Tin ore	152	3.2	265	3.1	280	1.6
Natural rubber	32	1.0	40	0.5	96	0.6
Petroleum	165	3.8	100	1.1	—	—
Total	4,296 ¹	100.0 ¹	8,591	100.0	17,058	100.0

Source: Bank Negara (AR), 1970, 1975, 1979.

¹Total imports inclusive of imports not allocated.

which accounted for one-third of the total imports of consumption goods in the 1970s, will continue to decline. Imports of rice, which were one-sixth of total food imports in the 1970s, are declining as the country strives towards self-sufficiency. However, in any year, rice imports will vary with weather-induced changes in the previous year's domestic production and the state of the country's rice stockpile.

An intensive livestock production and marketing programme has raised Malaysia's production to about 65 per cent of its local meat requirements, providing most of its pork and poultry. The remaining one-third, mostly beef, is imported. However, more than 90 per cent of Malaysia's milk was still imported at the end of the 1970s. As for sugar, Malaysian refineries now produce nearly 500 000 tonnes of refined sugar annually, which is close to the nation's local

consumption needs. On the other hand, the production of sugar cane, plagued by technical and management problems, was still insufficient to meet the milling requirements in spite of steady increases in the acreage planted to more than 25 000 hectares. As a consequence, Malaysia has to import raw sugar for its sugar mills.

About 150 000 tonnes of fish, 17 per cent of Malaysia's total annual consumption, is imported, of which more than 75 per cent comes from Thailand to meet the seasonal shortfalls. Ironically, Malaysia also exports fresh fish to Singapore, taking advantage of higher prices obtainable for the higher grades. At the beginning of the 1980s, the Government was also intensifying its efforts to increase the country's aquatic products from riverine, coastal and marine fishing and aquaculture, both for domestic consumption and exports.

It is also clear that imports of investment goods and intermediate goods will continue to grow in importance, both in absolute and in relative terms, as Malaysia accelerates its industrialization programmes and its defence commitments. As a result Malaysia will use more capital-intensive and petroleum-fuelled vehicles and machines. This in turn will influence the nation's future petroleum-import requirements and the exchange earnings to pay for them.

(b) Exports

Despite world-wide stagflation, Malaysia's export sector has benefited from buoyant commodity prices. As a result, the value of total exports increased by nearly 40 per cent in 1979, with agriculture as the leading source of export earnings.

Rubber. In 1979, the export receipts from rubber rose to more than \$4.5 billion. This was mainly due to the 22 per cent increase in price (to \$2.72 a kilogramme). The volume of exports increased only by 4 per cent. Although rubber's share in total exports has declined, it was still the single largest source of export earnings in 1979.

The high prices in the late 1970s were caused by a variety of factors, including a sharp increase in the demand for natural rubber following the higher cost of producing synthetic from petroleum stock. Increases in the United States Government Services Administration (GSA) stockpile in response to the Iranian crisis and general world tension; production difficulties experienced by other producing countries like Thailand and the general uncertainty in the world currency market which led speculators to hedge on commodities rather than financial 'paper' assets were also contributing factors. Although rubber prices will continue to fluctuate they will

remain relatively high due to the increasing costs of synthetic rubber. The proposed International Natural Rubber Agreement under the UNCTAD Integrated Programme for Commodities should also help to stabilize prices.

However, rubber production in Malaysia has been falling in the late 1970s. Estate rubber acreages have been reduced by replacement with the more lucrative and less labour-intensive oil palm. In 1979, mature estate rubber acreage declined by nearly 2 per cent to 550 000 hectares. This more than offset the 0.6 per cent increase in smallholders' rubber acreage to 1 415 000 hectares. Estate rubber acreage and production seems likely to continue its decline despite the recent price increases. On rubber smallholdings, the labour shortages due to migration of young people to urban areas will also result in decreasing acreages and production. This effect is outweighing the increases in productivity resulting from higher-yielding clones.

Timber. Timber has been an important export during the 1970s, particularly hardwoods, of which Malaysia has been one of the world's largest exporter. During the decade, proceeds from timber exports rose from \$852 million, or 16.5 per cent of all exports in 1970, to \$4,206 million or 17.6 per cent in 1979. However, within this growth are concealed some changes of considerable significance.

First, the production of unprocessed saw logs has been falling during the latter part of the 1970s, largely due to the implementation of a set of Government policies designed to conserve the forest resources of the nation and to increase returns from the exploitation of timber by more processing and manufacturing within the country.

Secondly, and as a corollary to the above, exports of processed timber increased substantially both absolutely and in proportion. Details are shown in Table 9.2.

Thirdly, prices for hardwoods on the world market increased very rapidly during the decade, particularly for sawn logs, the price increase of which alone increased returns in the later 1970s, since the volume of logs exported was declining during this period. For exports of sawn timber, price increases were also an important influence, but the volume of these exports increased at a more moderate rate.

Another factor that influenced Malaysian trade in timber was the rapid growth of internal demand, especially for housing, as a result of which the Government prohibited the export of certain types of timber. Continuation of this trend of internal demand, which is closely related to the general economic development of the

TABLE 9.2
Malaysia's Gross Exports by Major Commodities

Items	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
Agricultural products including forestry and fisheries	3,111	60.2	5,013	54.2	12,503	52.0
Rubber	1,724	33.4	2,040	22.1	4,561	19.0
Saw logs	644	12.5	685	7.4	2,877	12.0
Sawn timber	208	4.0	422	4.8	1,339	5.6
Palm oil	264	5.1	1,318	14.2	2,453	10.2
Palm kernel	11	0.2	109	1.2	364	1.5
Pepper	59	1.1	110	1.2	146	0.6
Coconut oil	43	0.8	44	0.5	133	0.5
Copra	7	0.1	—	—	—	—
Fish & other sea foods	96	1.9	152	1.6	324	1.3
Cocoa	—	—	—	—	148	0.6
Others	55	1.1	114	1.2	158	0.7
Minerals	1,357	26.0	2,133	23.0	6,574	27.4
Tin	1,013	19.6	1,206	13.0	2,297	9.6
Petroleum	202	3.9	869	9.4	4,127	17.2
Iron ore	107	2.1	—	—	—	—
Bauxite	18	0.4	—	—	—	—
Others	17	0.4	58	0.6	150	0.6
Manufactured and processed products	631	12.2	2,006	21.7	4,793	20.0
Miscellaneous	64	1.2	100	1.1	154	0.6
Total	5,163	100.0	9,252	100.0	24,024	100.0

Source: Bank Negara (AR), 1970, 1975 & 1979.

economy, will make the Malaysian timber industry less dependent on export markets of sawn logs to Japan, South Korea and Taiwan, and sawn timber to Singapore, the Netherlands, Australia and the United Kingdom.

Palm Oil. During the 1970s, oil palm has been Malaysia's fastest growing agricultural industry, the production volume of which increased more than threefold. As the price has increased also, and as Government policy has successfully encouraged the development of considerable 'downstream' processing, with a consequent considerable increase in local value added, the total value of Malaysian exports from this industry has increased very greatly. The figures are shown in Tables 9.2 and 9.3.

TABLE 9.3
Malaysia's Gross Exports of Manufactures

Item	1970		1975		1979 ¹	
	\$m	%	\$m	%	\$m	%
Food	89	16.7	217	12.4	336	7.0
Canned pineapple and juice	44	8.3	51	2.9	49	1.0
Tea	4	0.7	37	2.1	67	1.4
Others	41	7.7	129	7.4	220	4.6
Beverages and tobacco	6	1.3	10	0.6	28	0.6
Textiles, clothing and footwear	34	6.3	209	11.9	577	12.1
Cotton fabrics of standard type	9	1.7	47	2.7	242	5.1
Clothing	14	2.7	98	5.5	264	5.5
Footwear	—	—	35	2.0	55	1.2
Others	10	1.9	29	1.7	16	0.3
Wood products	91	17.2	197	11.2	468	9.8
Veneer	7	13.5	17	0.9	27	0.6
Plywood	46	8.7	90	5.2	281	5.9
Chipwood	15	2.8	33	1.9	21	0.4
Wooden mouldings	6	1.0	30	1.2	81	1.7
Wooden tools, handles, brush bodies, etc.	11	2.1	—	—	—	—
Others	6	1.1	27	1.5	59	1.2
Rubber products	17	3.0	41	2.4	76	1.6
Chemicals and chemical products	30	5.7	57	3.3	251	5.2
Petroleum products	159	30.0	105	6.0	—	—
Non-metallic mineral products	18	3.4	21	1.2	48	1.0
Iron and steel products	10	1.9	11	0.6	—	—
Manufacture of metal (including tin metals)	8	1.5	30	1.7	170	3.5
Electrical machinery, appliances and parts	—	—	—	—	2,253	47.0
Machinery & transport equipment	30	5.6	433	24.7	—	—
Other machinery and transport equipment	—	—	—	—	272	5.7
Other manufactures	38	7.2	421	24.0	314	6.5
Total	530	100.0	1,753	100.0	4,793	100.0
Palm oil and other oil products					2,962.4	

Source: Bank Negara (AR), 1970, 1975 & 1979.

¹In 1979, the calculation of manufactured exports was revised. The changes are

- (a) chemical and petroleum products are now grouped as a single item;
- (b) electrical machinery, appliances and parts and machinery and transport equipment are now grouped separately; and
- (c) palm oil and other oil products which were not included are now listed as manufacturing exports.

Malaysian production of palm oil will continue to increase during the 1980s, as large areas already planted or planned for planting come into production. This is partly due to the continuation of large Government land development programmes, and partly to the replacement of rubber with oil palm in estate and smallholder re-planting. The price prospects for edible oils on world markets are less reassuring, but the special nutritional qualities of palm oil, together with the cost advantages deriving from Malaysia's high technology and efficiency in tree-crop production, should enable its oil palm industry to remain viable and a strong foreign exchange earner through the 1980s and 1990s.

This will be aided by the continuation of the industrialization policies which give support to further development of the 'downstream' processing of oil palm products. The industry will remain export oriented as the domestic demand for oil palm products is very limited. The main markets are in the industrialized countries such as the Netherlands (as entry port for Western Europe), United States and the United Kingdom, which between them purchased nearly 70 per cent of Malaysia's palm oil exports in the 1970s.

Cocoa. In 1979, Malaysia exported 23 000 tonnes of cocoa valued at \$148 million. Though this was less than 1 per cent of its total exports, its potential is much greater due to rapidly increasing new planting, especially in the state of Sabah. Furthermore, given Malaysia's high technology and experience in tree-crop agriculture, it is very possible that Malaysia may become a leading world exporter by the 1990s as production in Ghana and Nigeria decline due to political instability and economic dislocation. Two developments that will favour Malaysia's cocoa industry are the relatively untapped local confectionery and chocolate market, which was importing its cocoa beans in the late 1970s, and the qualitative improvements are being made in Malaysia's processing techniques which will improve international market acceptance. Currently, Malaysian cocoa still suffers from acidity problem which makes it less competitive against African cocoa.

Pepper. In the 1970s, Malaysia was the world's largest exporter of pepper, which was principally produced in the state of Sarawak. In 1979, total exports were more than 39 000 tonnes, worth \$140 million, despite a fall in price. Malaysia exports pepper mainly through Singapore, which re-exports the spice all over the world. Table 9.2 shows that after a long period as Malaysia's third most important cash crop, pepper declined to fourth place, after cocoa, in 1979. Nevertheless, the world market outlook for pepper is

bright and it will continue to be important in Sarawak's agricultural economy, despite its intensive and skilled labour requirements.

Coconut oil. The coconut is cultivated all over the country, but most of the coconuts produced are consumed locally. In the 1970s, the world price of coconut oil increased to more than \$2,000 per tonne, and this increased Malaysia's export of this commodity to 63 000 tonnes valued at \$133 million. In the late 1970s, Malaysia expanded its productive capacity by new planting and replanting with higher yielding coconuts both as a sole crop and as an intercrop with cocoa. However, the bulk of the coconuts produced will still be consumed domestically.

Fish and other sea products. In 1979, the volume of Malaysia's fish and marine product exports increased sharply to over 155 000 tonnes at an average value of \$2,100 per tonne, which gave a total export receipt of \$324 million. Although the potential for export of processed crustaceans and other marine products to the United States, Japan and Western Europe is vast, local sanitary and quality controls have been inadequate to enable local or foreign investors to expand their operations. There is a potential for further development here if these impediments can be overcome.

Tin. Malaysia produced more than 40 per cent of the world's total tin production in 1979 and remains the world's largest tin supplier. Other major producing countries have suffered from production difficulties and their supplies to world markets have tended to be erratic. Although tin has not maintained its pre-war status as Malaysia's number two foreign exchange earner, the price increases in the late 1970s added greatly to the value of its export earnings, which totalled \$2,297 million, from an export volume of 71 500 tonnes, in 1979.

The demand for tin is related to the end-uses of the metal. On the one hand, the increasing use of plastics and aluminium in the packaging industry, and more efficient electrolytic process of tin-plating have reduced the demand for tin as an intermediate raw material. On the other hand, continued research has introduced new end-uses for tin, such as the two-piece drawn-iron tin-plated cans for beer and beverages, and tin-lead solders in the electronic industry. Future increase in demand for the metal will therefore depend on the development of new markets, especially among the fast-developing industrializing East European countries, China and the Republic of Korea, sustained increases from the OECD countries, especially the Netherlands and Japan, and Malaysia's proposed downstream tin-plating plant.

The supply of tin has been dealt with in Chapter 10. The position is that the more readily accessible tin deposits are becoming exhausted, in Malaysia as elsewhere. However, with improved technology and high prices, very large new reserves are becoming economically accessible, and Malaysia is well placed in these respects. There are good reasons for believing that the tin industry in Malaysia will continue to be a significant exporter to world markets in the 1980s and 1990s.

Petroleum. Malaysia's exports of crude petroleum have benefited directly from the world price increases, and since 1976 have exceeded tin in export value. The price increased from \$70 per tonne in 1973 to \$340 per tonne in 1979, resulting in greater prospecting as well as greater production, and exports increased threefold between 1973 and 1979. By the latter year, crude petroleum had become the nation's second largest earner of foreign exchange, with the export of 12.1 million tonnes valued at \$4,127 million. Furthermore, in 1979 \$877 million was collected in tax revenues from petroleum-based companies. Petroleum replaced rubber as the nation's highest foreign exchange earner in 1980.

Production of crude petroleum increased from 6.6 million barrels in 1970 to 60.5 million barrels in 1976, and between 1975-8, production rose at an average rate of 33.6 per cent per annum. Investment in oil exploration also increased during this period, from \$235 million to \$678 million. This accelerating pace of growth, stimulated by further price increases, will tend to increase the country's output even further. However such windfall gains are temporary in this depletive industry, as the falling production of the Tembungo oil field in Sabah shows. If a more conservative policy is implemented, Malaysia may deliberately reduce its output and exports unless new discoveries are made. In that case Malaysia's internal and external revenues will be reduced, and her balance of trade and payments would be adversely affected in the short run. Malaysia is fortunate however, in having large supplies of natural gas, which will contribute substantially both to exports and to internal energy requirements as oil production falls off.

Other minerals. Trends in the export of other traded minerals have varied in the 1970s. Iron ore production, for example, fell from 4.5 million tons in 1970 to just over 300,000 tons in the latter part of the decade. Bauxite also declined from about 1 million tons in 1970 to less than 400,000 tons in 1979. Production of copper concentrates became commercially viable in 1975, and in 1979 over 100,000 tons were exported from the Mamut mine in Sabah.

However, the generally increased level of prices for these minerals had a favourable effect on the export returns, considerably reducing the effect of the decline in quantity for iron and bauxite. Also, although Malaysia was not a significant exporter of these minerals in the world market, they had a considerable impact on the Malaysian economy in terms of employment creation, experience in joint venture development, and in the diversification of its export base.

Manufactures. Industrialization is a post-Independence phenomenon. Its increasing importance is seen in its rising contribution towards gross domestic product (GDP), where growth of industrial output exceeded the rates of growth in other sectors. Manufacturing is expected to continue as the fastest growing sector in the economy in the 1980s. The annual rate of increase from 1980 to 1990, in terms of value added, is expected to rise from 17 per cent to 26 per cent, contributing more than 25 per cent of the gross domestic product by the end of the period. In the second half of the 1970s, manufacturing was also the most important source of new employment.

In 1979, exports of manufactures were valued at \$4,793 million, providing 20 per cent of the nation's total gross export earnings, compared to 12.2 per cent in 1970. Despite overseas market uncertainties and continued protectionism in the more developed economies, the export earnings and growth rates of Malaysia's export-oriented manufacturing industries performed well, and accounted for about half of the total increase in export earnings. As can be seen from Table 9.3, the products of such industries include machinery, appliances, electrical components, textiles, clothing and footwear, wood products, processed palm oil and food products. However, the largest export item has been electronic components, in which the value added in Malaysia is not very large.

Malaysia has also started to move into heavy industries such as cement-making, steel fabrication, aluminium smelting, electrolytic tinning, petrochemicals, and liquefied natural gas, which are based on the natural and energy reserves available, and for which the end-products are for domestic consumption as well as export. In conjunction with the other ASEAN countries, Malaysia is also building a urea plant at Bintulu, Sarawak. In the long run, these heavy capital-intensive and high-technology industries will not only change the country's manpower and financial requirements, but its imports, production and export configurations.

Export of manufactures is not without its problems. It is without doubt that most developing countries including Malaysia are frustrated by high tariff barriers, quantitative controls and other

non-tariff protective measures put up by the advanced countries. The quantitative restriction in the United States and protection of the Australian market against our timber products and textiles, and the strong import restrictions imposed by the European Economic Community (EEC) countries on our labour-intensive manufactures such as footwear, tableware, cutlery and electrical parts, provide some examples. The results of the Multilateral Trade Negotiations (MTN) have also been disappointing. Although at the time of writing it was premature to know the extent of the trade-creating effects of the MTN tariff reductions, the quotas on textiles, garments and footwear exports imposed by USA, EEC and Australia at the beginning of the 1980s were certainly not conducive to the expansion of these industries in Malaysia.

These problems posed major obstacles to the diversification and future expansion of Malaysia's exports of manufactures. In the 1970s, Malaysia took advantage of the Generalised System of Preferences (GSP) schemes, which undoubtedly paved the way for her industrial exports. As a short-term remedy, the extension and improvement of the GSP could create more certainty in the industrial promotion of the country. However, any long-term solution to the barriers to world trade expansion will call for industrial restructure in the advanced economies, so that Malaysia and other less-developed countries could move further up the ladder of industrial development.

(c) Directions of Trade

As seen from Table 9.4, Japan, USA and the EEC were the largest suppliers of imports to Malaysia in the 1970s. The leading supplier was Japan, while in the latter part of the decade the United States had displaced the United Kingdom as the second major source of imports. Of the EEC suppliers, the Federal Republic of Germany and the United Kingdom, were by far the most important. Imports from ASEAN countries also increased as a result of closer economic cooperation. Imports from Singapore, which were mainly manufactured goods, accounted for more than half of the total imports from the region. Malaysia's imports from Thailand, her second largest Asean trading partner, were principally rice, tin for smelting and re-export and, in the late 1970s, other foods and processed goods.

In 1979, about 78 per cent of Malaysia's exports went to Japan, the USA, the EEC and ASEAN countries. Since 1976, Japan has been the most important destination for Malaysian exports, accounting for 23.5 per cent of the total in 1979. Singapore and the USA were the second and third largest markets, each importing just

TABLE 9.4
Malaysia's Imports by Country

	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
France	61	1.4	172	2.0	273	1.6
Fed. Rep. of Germany	208	4.8	436	5.0	1,006	5.9
Italy	47	1.1	122	1.4	205	1.2
Netherlands	50	1.1	77	0.9	137	0.8
United Kingdom	580	13.4	871	10.1	1,109	6.5
Singapore	312	7.2	722	8.4	1,603	9.4
Thailand	151	3.5	339	3.9	682	4.0 ¹
China	227	5.2	357	4.1	461	2.7 ¹
Japan	768	17.7	1,831	21.3	3,923	23.0
Australia	207	4.8	663	7.7	989	5.8
U.S.A.	367	8.5	920	10.7	2,593	15.2
Others	1,362	31.3	2,100	24.5	4,077	23.9
Total	4,340	100.0	8,610	100.0	17,058	100.0

Source: Bank Negara (QEB) various.

¹ Author's estimates.

over \$4,000 million of the \$24,000 million total exports, though of course much of Singapore's imports were for processing and re-export.

The EEC countries as a group have become a very large export market for Malaysia. Although all products of Third World countries exported to the EEC are subject to the Common Customs Tariff (CCT), the EEC also provides trade concessions under the EEC Generalised System of Preferences (GSP) to developing countries, and Malaysia has undoubtedly benefited. As can be seen from Table 9.6, among the EEC countries, the Netherlands (as the major entry point for Western Europe) was the largest market for Malaysia in the second half of the 1970s. The United Kingdom's trade relations with Malaysia had considerably reduced in importance as a result of her entry into the EEC.

(d) New Trade Prospects

Malaysia's dependence on export trade is exceptionally high, its export sector accounting for a very high percentage of the Gross National Product. Its exports are directed mainly to Japan, the United States, the EEC and Singapore. This reliance on the more established markets of the industrialized countries means that the market for Malaysia's exports may be adversely affected by an in-

TABLE 9.5
Malaysia's Imports by Region

Region	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
EEC	349	9.2	1,765	20.5	2,933	17.2
Eastern European Countries	26	0.6	35	0.4	205	1.2
ASEAN	694	16.0	1,291	15.0	2,559	15.0
Australia and New Zealand	286	6.6	766	8.9	990	5.8 ¹
North America	415	9.6	1,007	11.7	2,593	15.2
Rest of the World	2,525	58.0	3,746	43.5	7,778	45.5
Total	4,340	100.0	8,610	100.0	17,058	100.0

Source: Bank Negara (QEB), various.

¹ Only imports from Australia are included.

TABLE 9.6
Malaysia's Exports by Country

Country	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
France	112	2.2	142	1.5	408	1.7 ¹
Fed. Rep. of Germany	162	3.1	397	4.3	865	3.6
Italy	171	3.3	163	1.8	408	1.7 ¹
Netherlands	162	3.1	770	8.3	1,321	5.5
United Kingdom	340	6.6	554	6.0	937	3.9
U.S.S.R.	212	4.1	243	2.6	577	2.4
Singapore	1,101	21.3	1,881	20.4	4,156	17.3
Thailand	44	0.9	139	1.5	312	1.3 ¹
China	66	1.3	128	1.4	408	1.7 ¹
Japan	939	18.2	1,321	14.4	5,646	23.5
Australia	116	2.2	180	1.9	529	2.2 ¹
U.S.A.	670	13.0	1,486	16.2	4,156	17.3
Others	1,067	20.7	1,815	19.7	4,301	17.9
Total	5,162	100.0	9,219	100.0	24,024	100.0

Source: Bank Negara (QEB), various.

¹ Author's estimates.

TABLE 9.7
Malaysia's Exports by Region

Region	1970		1975		1979	
	\$m	%	\$m	%	\$m	%
EEC	639	12.4	2,135	23.1	4,084	17.0
ASEAN	1,280	24.8	2,243	24.3	4,805	20.0
USSR and Eastern European countries	314	6.0	434	4.7	793 ¹	3.3
Australia and New Zealand	140	2.7	217	2.4	625 ¹	2.6
North America	769	14.9	1,582	17.2	4,324 ¹	18.0
Rest of the World	2,020	39.2	2,607	28.3	9,393	39.1
Total	5,162	100.0	9,219	100.0	24,024	100.0

Source: Bank Negara (QEB), various.

¹ Author's estimates.

ternational economic downturn or by increasingly protectionist policies. To mitigate these problems, the ASEAN countries are attempting to increase trade between themselves by liberalizing tariff and quota barriers within ASEAN itself.

Malaysia is also attempting to develop new export markets. Its trade with the socialist countries, though small, is increasing. Among the socialist countries of Eastern Europe, USSR is the main trading partner for about half of Malaysian exports to the Eastern Bloc. The People's Republic of China is also an important market for Malaysian rubber and palm oil.¹

MALAYSIA'S BALANCE OF PAYMENTS

As indicated earlier, Malaysia's major exports have risen greatly in unit value and relatively in volume, especially in the export boom years of 1973, 1976-80. As merchandise imports grew at a relatively slower rate, the balances in the merchandise account have been very favourable, giving rise to improvements in the terms of trade. Outstanding surpluses exceeding \$3 billion were obtained in

¹ It is interesting to note that during the Korean War, Malaysia could not export its rubber directly to China because rubber was considered a strategic commodity. Ironically, as a result of the diminishing demand of natural rubber by the more industrialized Western nations, which produced their own synthetic rubber, China has become one of the world's largest natural rubber buyers.

the merchandise accounts in each of the three years 1976-8, and in 1979 this increased to \$6.5 billion, compared with total merchandise exports of just under \$24 billion. However, the merchandise surpluses are offset by persistent and increasing deficits in the balance of payments on the services account.

Malaysia does not possess a large merchant fleet and most of its international trade is carried in foreign vessels. As a result, payment for freight and insurance has accounted for about one-third of the total net services payments. But the largest component in the payment for services is repatriations of profits earned by non-residents, from portfolio and equity investments in the country's plantations, tin mining and manufacturing companies. Nevertheless since the profits from rubber and tin depend on export prices, the returns to investors therefore depend on the 'export performance of the commodities and the companies' resultant dividend disbursement policies. In the late 1970s, the net payments on investment income have averaged about 45-50 per cent of the total net payments on services. Investment receipts from abroad are largely incomes from Malaysia's foreign exchange reserves. Other incomes earned from abroad, such as private investments, are relatively small.

On the Government account, the net receipts services payments have declined due to the increasing costs of Government overseas travel and trade missions, and the reduction of Commonwealth military forces in the early 1970s. Other miscellaneous payments for services to non-residents included royalties, commissions and payments for professional and technical consultancy services. It is interesting to note that the average annual growth rate for this expenditure was relatively low in the early 1960s at approximately 7 per cent. However, with the changing economic and industrial structure of the country, the rate of growth of this expenditure increased to 40 per cent per annum during 1976-8, primarily related to oil exploration activities and to the management contracts of joint venture production activities.

In the 1970s, the country's balance of payments on current account, which combines the merchandise, services and transfer balances, has been positive. However, in the years that the balance on current account was in deficit, this was offset by strong inflows of foreign private capital as well as long-term inter-governmental concessionary loans and syndicated market loans which Malaysia was able to raise at favourable rates. The latter was made possible by Malaysia's high credit rating. This high private capital inflow came largely from retained earnings in manufacturing and oil production, from reinvestment in plantation and mining, and from long-term commercial credit obtained by large local corporations.

TABLE 9.8
Malaysia's Balance of Payments
(\$ million)

	1971 ¹	1975	1979
	\$'000,000		
Merchandise exports f.o.b.	4,596	9,085	23,784
Merchandise imports f.o.b.	4,342	8,081	17,213
Merchandise surplus	614	1,004	6,571
Service receipts	587	1,080	2,720
Services payments	1,256	2,305	6,902
Services deficits	-669	-1,225	-4,182
Private transfers (net)	-188	-160	-143
Government transfers (net)	21	35	24
Goods, services and transfers	-222	-346	2,270
Official long-term capital (net)	407	827	702
Loans	377	891	691
Others	30	-64	11
Corporate investment (net)	160	550	1,300
Commercial credits (net)	11	-25	117
Long-term capital (net)	578	1,352	2,119
Basic balance	356	1,006	4,389
Private financial capital (net)	73	-101	-1,140
Commercial banks	68	-108	-574
Others	5	7	-566
Errors and omissions (net)	-226	-734	-1,460
Overall surplus	203	171	1,789
Allocation of SDRs	61	-	74
IMF resources	-	-	-
Central Bank reserves	-264	-171	-1,863
SDRs	-61	-11	-140
IMF reserve position	35	-21	-41
Gold and foreign exchange	-238	-139	-1,682

Source: Bank Negara (AR), 1971, 1975 and 1979.

¹Due to the different accounting methods adopted by Bank Negara Malaysia, the Balance of Payments for 1971, instead of that for 1970, was chosen for consistent comparison.

These together with the higher gross official external borrowing accounted for the increased balances in the long-term capital accounts. Moreover, these surpluses are well maintained even after allowing for the country's monetary subscriptions to international organizations like the World Bank, the Islamic Development Bank,

the Asian Development Bank and the International Tin Buffer Stock and payments in respect of private long-term commercial credit.

Hence, the basic balance (sum of the balance on current account and the balance on capital account) was positive throughout the 1970s. Over the decade the basic balance grew substantially, on occasion attaining a record level. The largest surplus was \$4,389 million in 1979, compared with the next highest, \$3,046 million, in 1976. As the basic balance was partially offset by financial deficits in private financial capital (including errors and omissions), and the foreign commercial liabilities of commercial banks, the overall surplus was reduced accordingly. Nevertheless these surpluses, together with the allocations of Special Drawing Rights (SDRs) have increased the net international reserves of the country and consequently strengthened the Malaysian ringgit.

The 1970s saw considerable instability in the international monetary markets, but the Malaysian ringgit has been one of the more stable currencies and has by and large appreciated in value as a result of the fundamental economic strength of the country. Malaysia's favourable balance of trade has ensured a steady demand for the ringgit by importing countries. As this sound international trading position is expected to continue through the 1980s, the strength of the Malaysian ringgit appears likely to be maintained at least until the early 1990s. Thereafter the possibility of oil imports replacing oil exports may alter the situation, and although natural gas will help balance this trend, it must be one of Malaysia's main economic objectives in the 1980s to use its surpluses to build up alternative export capacity to offset the eventual need to import high-priced petroleum products.

CONCLUSIONS

During the 1960s and 1970s, Malaysia made remarkable progress in the growth and diversification of its economy and its trade. Although its economy is very open, at the end of the 1970s there were six different commodities, each of which accounted for more than 10 per cent of the total value of the nation's annual exports. Furthermore, manufactures (mostly electrical appliances and electronic components) and processed products (mostly refined palm oil), each provided slightly more than 20 per cent of the total export value. The economy is thus well-buffered against the downturn in demand for any one or two commodities. This is a great improvement over the 1950s, when more than 80 per cent of Malaysia's total exports comprised rubber and tin.

Malaysia's favourable position in international trade and finance can be attributed to four main factors.

(1) Geopolitical Setting

The formation of Malaysia, which brought the resource-rich states of Sarawak and Sabah into the Federation, expanded Malaysia's economic and export base to include timber and crude petroleum, as well as adding another 150 per cent, or 127,581 square miles, to its land area. Sarawak and Sabah were already important rubber and oil palm producers in their own right and Sarawak was, and still is, the world's largest exporter of pepper. As a result of the petroleum and timber production from Sarawak and Sabah, in the 1970s Malaysia became a significant net exporter of petroleum,¹ and the world's largest exporter of tropical hardwood.

(2) Agro-economic Foundations

Malaysia's high technology and expert management in tree-crop agriculture have enabled the country to branch effectively from rubber into new export crops, notably oil palm. Malaysia has continued to be the world's largest producer and exporter of rubber, but has also rapidly become the world's largest producer and exporter of palm oil. This latter development was effected largely by the Federal Land Development Authority (FELDA), the Government's main land settlement agency which has become the world's largest single corporate oil palm producer, and also by the replanting of rubber land with oil palm by the large commercial plantations, and more recently by small rubber estates and smallholders as well. The same production and management skills are now being applied to cocoa. It is therefore very possible that by the 1990s Malaysia will be one of the top five producers and exporters of cocoa. Malaysia has also opened up new rice land and improved the double cropping capacity of existing rice land, with better irrigation and drainage facilities, and as a result has been able to decrease its rice imports. It is also opening a new front to increase its productive capacity for tropical fruits, meat, aquatic and marine products, both for domestic consumption and for export.

(3) Selective Industrialization

In the early 1960s, Malaysia concentrated on the manufacture of consumer goods, such as beverages and textiles, that had hitherto been imported. Then it moved into light manufactures such as consumer durables, electrical appliances, transport equipment, and

¹ Petroleum production from off-shore Peninsular Malaysia did not come on-stream until the beginning of the 1980s.

assembly operations both for the domestic and export markets. In some industries, especially those set up in Free Trade Zones, the end-products were exclusively for exports. Towards the end of the 1960s and through the 1970s, particular attention was paid to the downstream processing of products the country had previously exported as raw material, such as palm oil and timber. At the same time, Malaysia's political stability and the relatively abundant low-wage labour was able to attract the 'footloose' electronic assembly industries. Thus, as Malaysia moves into the 1980s, it is upgrading its industrialization programmes along two fronts. First, to increase the value added of its export-oriented manufactured goods, it is moving into extremely competitive market with its 'Made in Malaysia' brand goods, and second, it is embarking on large-scale, capital-intensive high-technology industries such as the liquefied natural gas (LNG) and urea plants, aluminium smelting and tin-plating, that are built on the country's resource and energy endowments.

(4) Malaysia's Strategic and Pragmatic Political Positioning

Since Independence, Malaysia has moved from its Pro-Western orientation to one of neutrality and non-alignment. During the Korean War, Malaysia as a British dependency was prohibited by Whitehall from exporting its rubber directly to the People's Republic of China. This was a result of the joint economic sanctions against China and North Korea. Ironically, the Malaysian-produced rubber was sold to China via the British Colony of Hong Kong through the British-owned plantation and trading houses.

Malaysia now trades directly with all countries except South Africa and Israel. Malaysia is also an active participant of the New International Economic Order which seeks drastic redressal of the global economic imbalances between the more developed countries and its Third World counterparts. Nevertheless its track record as a major exporter of commodities has been moderate and pragmatic.

10 The Agricultural Sector

SINCE World War II, Malaysia's economic growth and development has been greatly influenced by the performance of the agricultural sector, as was the case in the advanced industrial countries at earlier stages of their development. The emphasis in agricultural development, especially since the 1950s, has changed from a simple concern with food and export production to a complex process involving many areas of activity. Agricultural development has become concerned not only with agriculture and its improvement, but with political, social and economic policies as well.

This chapter reviews the development of Malaysia's agricultural sector in that context. The forestry sector is discussed in Chapter 11.

AGRICULTURE

Agriculture has always been the basic industry of Malaysia and is of very great economic and social importance to the country. Taken together with forestry, fishing and animal husbandry, agriculture is still the main foundation of Malaysia's economy and society in the early 1980s. Although the relative importance of the sector has been eroded in recent years by the rapid growth of manufacturing, services and the development of a large oil output, the agricultural sector remains the ultimate source of the livelihood (directly or indirectly) of most Malaysians, and unlike the extremely profitable oil production, it is likely to remain of basic importance with significant economic and social contributions in the very long term.

The basic importance of agriculture is clear. Accounting for 32 per cent of the Gross Domestic Product (GDP) in 1970, the agricultural sector's contribution to GDP in constant 1970 prices was still about 25 per cent in 1979 and is expected to decline to about 20 per cent by 1990. Export earnings from this sector, comprising agricultural products, timber, fish and livestock, accounted for about two-thirds of total exports in 1957 and was still about 50

per cent in 1979. During the 1960s and 1970s, the growth rate of agriculture has averaged over 5 per cent, due largely to the impact of new planting and replanting of rubber with technologically improved varieties, the sharp increase in acreage under oil palm, increased timber output and the doubling of rice production through double-cropping, especially in the Muda irrigation scheme. In 1970, agriculture, forestry and fishing employed 50 per cent of the country's labour force and by 1979, although its share had declined to 40.2 per cent, it provided two million jobs. By 1990, its contribution to total employment is expected to decline to about 35 per cent, but it will still be the main source of employment for Malaysians.

The economic strength of the agricultural sector has been closely related to its links with international markets. During the 1960s and 1970s, Malaysia's share of world trade in major primary agricultural commodities, especially rubber and crude and processed palm oil, increased rapidly despite instability in prices. Earnings from agricultural exports also grew significantly. Apart from rubber, this improvement was due to increased physical production rather than an improvement in the terms of trade. Overall, agricultural output has been buoyant. For example, in 1979, total output of agriculture, forestry, fishing and livestock in real terms increased by 5.6 per cent, whilst in 1980 it was expected to grow at a moderate rate of 3.5 per cent. The terms of trade have also been favourable with the growing liberalization of world trade.

Agriculture is also of basic importance in the political and social context of Malaysia. The sector has been largely dominated by the Bumiputra. In Peninsular Malaysia, 66 per cent of the agricultural workforce were Malays in the late 1970s, and in Sabah and Sarawak, an even larger proportion, i.e. about 80 per cent and 90 per cent respectively, were bumiputra. Moreover, the sector, or at least the traditional smallholder component,¹ has always been economically backward relative to the non-agricultural sector. These facts are particularly important as the Bumiputra, and the Malays in particular, are politically dominant in the electorate, but constitute the majority of the poor in the country. It is thus a political necessity that the development of agriculture should uplift the Bumiputra income levels, and this is an important component in the social and economic objectives of the New Economic Policy (NEP).

Considerable success has been achieved in the expansion of food production and tree-crop agriculture, but this expansion has not been sufficient to increase agricultural employment and at the same

¹ Particularly fishing, padi, coconut, and rubber smallholders.

time to raise agricultural incomes to a satisfactory level. The migration of the rural workforce to urban employment and to the manufacturing sector in the 1970s has not been wholly beneficial, because the offtake has been unbalanced, drawing off mainly the rural youth, leaving village agriculture still heavily populated with the old and very young, and in some areas with a critical shortage of labour for the harder agricultural tasks. Labour shortages in agriculture also occur in Sabah and Sarawak, particularly in Sabah, despite the availability of illegal immigrant labour. As a result, growth and development in some parts of the agricultural sector were impeded and generally speaking, the incomes and socio-economic status of the farming population have not increased adequately. This has been disappointing because poverty is highest in the agricultural sector, and the growth of agricultural output has been slow to alleviate poverty.

Because of the economic, social and political significance of agriculture, development policies in Malaysia have given heavy emphasis to agriculture and to improving the socio-economic status of the rural population. A very large proportion of the country's resources has been used in direct support of this policy, whilst most of the remainder was applied to development of the infrastructure of the economy as a whole. In the Third Malaysia Plan, 1976-80 (TMP), agriculture and rural development was allocated \$4.7 billion, i.e. 25.5 per cent of total development budget, being the largest recipient (Malaysia, 1976b). However, of the funds, there was very little direct Government investment in support of the more advanced sectors of the agricultural economy; this being left almost entirely to private enterprise.

It can thus be seen that in the 1970s, investment in agriculture has come largely from public expenditure, and it took mainly the form of capital investment in infrastructure, both physical and institutional, and input investments aimed at improving productivity. Since the 1960s, private investment in small-scale agriculture has not been significant. While public investment has filtered to all levels of the agricultural sector, most private investment has been in the more lucrative sub-sector of agriculture, comprising the export-oriented estates or plantations. Small-scale agriculture, comprising the rubber smallholders, the padi cultivators, the 'small' fishermen, livestock rearers and a range of other small-scale agricultural activities, has not attracted private investment to any large degree, as this type of agriculture has a lower rate of return to capital as well as to labour.

The enormous public investment in agriculture has largely been aimed at defects in the agricultural infrastructure, uneconomic-size

holdings and poor farming methods, etc. For instance, under the TMP, 54.4 per cent of the agricultural sector development programmes are in drainage and irrigation programmes, replanting schemes for rubber, coconuts and pineapples, and in the provision of support services. All these programmes are aimed at raising productivity, expanding employment and creating a dynamic economic and social environment in the rural areas. For this, agriculture will have to achieve several things, of which the following are especially important:

1. Increased foreign exchange earnings over time, particularly when oil exports begin to fall;
2. Increased productivity on farms which will reduce production costs and increase the competitive position of our exports;
3. Increased employment for the rapidly increasing population;
4. Increased incomes for the agricultural and rural population; and
5. The provision of a large portion of the food supply for the growing population and thus reduction in imports of agricultural products.

FISHERIES

Fishing is one of the traditional rural activities in Malaysia. The fishing industry was relatively neglected prior to the 1960s, although the fishing industry directly supported about 90,500 fishermen at the beginning of the 1980s. Of the total employed in the industry, the West Coast of Peninsular Malaysia accounts for about 55 per cent, while the East Coast has 29 per cent, and the remaining 16 per cent are in Sabah and Sarawak. During the 1970s, production fluctuated from as low as 311,109 tonnes in 1972 to 708,000 tonnes in 1979, with considerable variations in between. Peninsular Malaysia produces about 80 per cent of the total landings, while the rest come from Sabah and Sarawak. About 75 per cent of the total marine fish landings in Peninsular Malaysia was concentrated in the West Coast States of Perak, Kedah and Penang and the remaining 25 per cent came from the East Coast. Malaysia has been exporting fresh 'high grade' fish, mainly to Singapore, Thailand and Japan, and at the same time importing on quite a significant scale, especially from Thailand and Indonesia. Between 15 per cent and 20 per cent of domestic fish consumption came from imports in the late 1970s, especially in the off-fishing seasons.

The fishing industry had long been characterized by low productivity and low capital investment, and it still lagged behind other sectors of the economy at the end of the 1970s. Most fishermen

were engaged in labour-intensive fishing in coastal waters. However, from the 1960s, efforts have been made both by the Government and by the private sector to exploit deep-sea fishing involving capital-intensive operations, such as trawling. This brought about modernization and economic growth in certain parts of the industry. It has produced impressive increases in production. Trawling in the later 1970s accounted for nearly one-half of the total fish landings by weight in Peninsular Malaysia. However, this type of fishing has not been of great help to traditional fishermen. It requires heavy capital investment and has reduced employment prospects in the more traditional section of the industry. Moreover, as many trawlers operate in coastal areas within the fishing grounds of traditional fishermen, there has been conflict between the trawler and inshore fishermen, caused partly by the fear that fisheries resources of the inshore waters will be depleted by over-fishing, thus threatening the livelihood of the traditional fishermen. The contribution by the West Coast traditional fishermen to fish landings in Peninsular Malaysia has gradually decreased during the 1970s. Trawling, especially within the 12-mile coastal limit, has resulted in the destruction of some natural fish breeding areas and has further aggravated the situation.

Up to the end of the 1970s, development in the fisheries sector had benefited mainly the better-off fishermen and the trawler-owners. The majority of the traditional fishermen of both ethnic communities (Malays and Chinese) remained 'poor'. While there were pronounced pockets of poverty among fishermen along the West Coast of Peninsular Malaysia, poverty was generally more acute on the East Coast. The incidence of poverty among all fishermen was around 50 per cent in the late 1970s.

The emphasis on poverty eradication in the Third Malaysia Plan, 1976-80, has stimulated substantial public investment in the fisheries sector but the economic returns remained low. The Fisheries Development Authority of Malaysia (MAJUikan), established in 1971 to stimulate development of off-shore fisheries and the general expansion of the fisheries sector, has not made much headway in the fight against poverty. Institutional problems, the socio-economic activities of 'middlemen' and inadequate facilities generally are some of the problems encountered.

Fisheries development also involves fresh-water fish culture. Aquaculture activities began in Peninsular Malaysia even before the Second World War, mainly by Chinese farmers. The Malays have only recently become seriously involved. Aquaculture offers a promising source of additional income to farmers through fish farming in ponds, promotion of padi field fisheries and stocking unused

mining pools, rivers and lakes. The Government has recently begun to pay more attention to the development of fresh-water fisheries, and during the 1980s and 1990s this could provide a useful supplement to the depleting marine fisheries resources.

LIVESTOCK

There has been no tradition of large-scale livestock husbandry in Malaysia. The industry has been largely carried out in scattered small-scale units within the smallholder sector. For example, cattle rearing for beef has been restricted mainly to the rice-growing areas and to areas of rubber and coconut smallholdings. Grazing was mainly in and around areas under the cultivation of the principal crops, and was incidental to them. Dairy farming was also unorganized, mainly undertaken by families of Indian origin working on estates or living around urban areas. Almost all the draught buffaloes and cattle were owned by Malays, while Indians and Pakistanis operated the milk cattle and meat operation. Poultry and piggeries are almost exclusively owned by Chinese.

Most livestock enterprises have been undertaken as a source of additional income, animal power and fertilizer, in conjunction with other activities. A census of commercial poultry farms undertaken in Peninsular Malaysia in 1973 indicated that 65 per cent of the 3,624 commercial poultry farms were owned by Chinese, whilst Malays owned nearly 35 per cent. Indians were not significantly involved in poultry farming, owning less than 1 per cent of the commercial farms.

Development in the livestock industry accelerated in the 1970s. The National Livestock Development Authority (MAJUTERNAK) was established in 1972 to undertake breeding, slaughter and processing, and marketing of livestock products. This marked the beginning of greater government involvement in the industry.

As Malaysia enters the 1980s, livestock enterprises have moved towards large-scale intensive operations, undertaken both by MAJUTERNAK and by the private sector, supplementing the existing extensive and mixed-farming livestock activities of the smallholder sector. At the end of the 1970s, Malaysia was self-sufficient in poultry, eggs and pork, and produced about 85 per cent of its beef requirements. However, almost 95 per cent of the total intake of milk and milk products was still imported. In the late 1970s, the Ministry of Agriculture and Rural Development set a target of complete self-sufficiency in beef production, and production of 20 per cent of the country's requirements of milk and milk products by 1990.

FEATURES OF THE AGRICULTURAL SECTOR

The agricultural sector in Malaysia is basically dualistic. There is a commercial, large-scale and relatively capital-intensive sub-sector, which provides the bulk of the agricultural output to satisfy export demand, and a traditional small-scale sub-sector. Within the former, there is a further division between the Government-organized smallholders (such as those in FELDA, FELCRA and other land development schemes) and the estates. This structure has evolved as a heritage of the colonial period and its promotion has been continued strategically for economic, social and political reasons.

The private sector dominated estates concentrate on a few commercial crops like rubber, oil palm and, on a smaller scale, coconut, cocoa, tea and pineapple. There are also a few sugar plantations, but they are rather a special case, being mainly state-owned or joint-ventures. Estate-type agriculture accounts for more than 30 per cent of the total cultivated area in Malaysia, and the smallholdings¹ (including FELDA schemes) for about 60 per cent. The average size of an estate is around 1,000 acres, whereas smallholdings averaged only 5.4 acres.² In Sabah and Sarawak, smallholdings also dominate the agricultural sector, especially in the cultivation of padi, rubber and cocoa.

During the last three decades, the dualistic organization of Malaysian agriculture has been eroded by the gradual modernization of considerable parts of the traditional sector. Particularly in rubber and oil palm, and also in irrigated rice, government intervention has enabled the extension of new technology and improved materials to much of the smallholder sub-sector. One noteworthy change is in the construction of large-scale irrigation projects like the Muda scheme, which has brought about one of the most rapid and remarkable economic transformations in small-scale peasant agriculture. It made possible the irrigation of about 237,000 acres of traditionally rain-fed rice land. This resulted in the double-cropping of padi for 60,000 farm families following the 'seed-water-fertilizer revolution' technology, which involved:

1. supply and management of irrigation water;
2. acceptance of new short-term maturity rice varieties to replace traditional varieties;
3. increased use of fertilizer and crop protection chemicals;

¹ Smallholdings also produce 'estate' type crops, though padi has been exclusively grown on smallholdings. The smallholders surpass the estates in total acreage of rubber, coconut and pineapple.

² The officially defined division between estates and smallholdings has for many decades been fixed at an unrealistically high figure of 100 acres.

4. adoption of mechanized farming in certain critical farming operations to overcome seasonal labour shortages; and
5. organization of institutional credit and input supplies.

Padi production in the Muda scheme, which averaged 314,000 tonnes annually in the five years prior to 1970, rose to between 900,000 and 1 million tonnes in 1979, accounting for about 40 per cent of total Malaysian rice production. This is the result both of increased cropping intensity, and of widespread use of modern short-term varieties with increased fertilizer use. Average farm incomes in 1975 were 2.4 times those of the 1966 level in real terms, this being due not only to increased farm production but also to improved padi prices.

Another area of remarkable transformation was in land development. In the 1960s and 1970s, large-scale land development had been significant in terms of public development expenditure allocation and land utilization. Government intervention in land development, especially in the now very extensive Federal Land Development Authority (FELDA) areas, had extended beyond agricultural technology to group organization. This included management inputs, and raising the efficiency and productivity of the smallholdings affected to the general level of many estates. In other cases, technology and access to capital were improved through the various replanting and new planting schemes and through agricultural extension services, whilst the organizational and management aspects were largely unaffected. This latter mode of modernization has been less spectacular in its effects, but in the long run it is of great potential importance as it is the mode most readily applied to the settled smallholder areas where the majority of the existing rural population find their livelihood. The modernization of the traditional sector, however, has yet to be experienced by many smallholders. There still remain extensive smallholder areas where little has yet been achieved, and where the traditional low-productivity mode of production has not yet been modernized to any useful degree.

The FELDA schemes are the best examples of the group organization approach, while other examples of varying effectiveness are found in schemes operated by other Federal agencies such as the Federal Land Consolidation and Rehabilitation Authority (FELCRA), the Rubber Industry Smallholders Development Authority (RISDA) and various State agencies. Table 10.1 shows the progress in land development by the various Federal and State agencies in 1971-80 and the target acreage for 1981-5.

Generally, those schemes organized and managed by Federal and State agencies other than FELDA were on a smaller scale and

TABLE 10.1

Malaysia: Progress In Land Development, 1971-1980, and
Target Acreage, 1981-1985
(acres)

<i>Agency/Programme</i>	<i>Target, 1971-80</i>	<i>Achievement, 1971-80</i>	<i>Target, 1981-5</i>
Federal programmes			
FELDA	903,365	923,425	370,150
FELCRA ¹	150,061	125,304	80,708
RISDA ²	250,102	77,745	38,076
	1,303,528	1,126,474	488,934
State programmes			
Peninsular Malaysia ³	187,576	384,641	355,508
Sabah ⁴	167,067	142,863	140,056
Sarawak ⁵	222,889	189,415	41,016
	577,532	716,919	536,580
Joint-venture/private sector ⁶	332,634	296,636	317,378
Total	2,213,694	2,140,029	1,369,892

Source: Malaysia, 1981.

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.

were only partially subsidized by the Federal Government. Certain of these agencies concentrate on rehabilitation, extension and consolidation of existing holdings rather than on new settlement projects. FELDA schemes are fully financed by Federal funds in the first instance, though a substantial part of the costs are treated as a long-term loan to the settlers. In essence, FELDA's land development and settlement schemes (and other FELDA-type schemes) are organized along the estate agricultural and production pattern in terms of management and the provision of services, whilst ownership is in individual holdings of between 8 to 10 acres. The aim is to combine the efficiency of a highly capitalized plantation system with small-scale individual ownership.

Centrally organized production of the FELDA-type is confined to tree-crop agriculture—rubber, oil palm, and, more recently, cocoa.

The smallholder-settlers are also encouraged to undertake subsidiary agricultural activities, such as short-term cash crops and livestock/poultry rearing in their house-lots. This type of production has increased greatly. The acreage in FELDA schemes rose to 776,000 acres by 1975 and a further 500,000 acres was planned to be added by 1980. By the late 1970s, FELDA had developed 1.2 million acres of land and settled 52,706 families totalling 370,000 people in 262 land development schemes in Peninsular Malaysia. Of the total developed acreage, about 700,000 acres were planted with oil palm, 390,000 acres with rubber, 21,000 acres with cocoa, 13,000 acres with sugar and 3,700 acres with coffee. The FELDA-type schemes provide smallholder-settlers with economies of scale, both in the cultivation and processing of the crop, which are not normally available to other small-scale producers, and substantially higher incomes.

Land development has also been successful in Sabah and Sarawak where land resources are still abundant and where development and diversification of economic activities have been urgently needed. Land development in Sabah and Sarawak has been undertaken primarily by State agencies. Recent agricultural development has concentrated mainly on cocoa in the case of Sabah and pepper in Sarawak. By the late 1970s, Sabah had about 53,888 acres of cocoa, and produced about 40.6 per cent of Malaysia's total output of cocoa; whereas in the case of pepper, Sarawak had some 27,972 acres and produced nearly 92 per cent of the total Malaysian pepper output (*Malaysian Treasury Economic Report 1980-1*). Rubber and oil palm, however, are slowly gaining in significance, at least in terms of acreages, with the acceleration of land development activities in these two states.

LAND OWNERSHIP

All but the smallest estates are generally owned and managed by public and private companies, and these are increasingly under the control of Malaysians of Chinese or Indian origin, but a considerable proportion is still under foreign ownership with British firms being prominent among the largest estate companies.¹ The smallholders, on the other hand, are mostly Bumiputra. Except in land development schemes, where farmers are eventually granted title

¹The number of estates has declined but the average size has increase through the amalgamation of estates into larger units. Larger estates are usually controlled and managed by agency houses which provide technical and financial services, thus enabling the estates to take better advantage of technological development and market opportunities.

to their plots on a long lease (i.e. 99 years), smallholders usually own the land they farm, or rent it from private landlords, or a combination of both.

The Census of Population of 1970 indicated that nearly two-thirds of all smallholders owned all their land, and owner-tenants on the average had the largest farms, whereas non-owner-tenants had the smallest. Comparing the distribution between Bumiputra and non-Bumiputra households, proportionately more Chinese households operated their lands as owner-operators (74 per cent for Chinese and 64 per cent for Malays) and the proportion of Chinese tenant-operators was slightly less than their Malay counterparts. By tenure status, Malay owner-operators worked an average 4.2 acres, Malay tenant-operators had only 2.8 acres, while for owner-tenants the average was 5.8 acres per household. Comparable information for Sabah and Sarawak was not available.

On the ownership of smallholdings, apart from land development schemes, the Malays owned 58.6 per cent of the total smallholder acreage in Peninsular Malaysia while the Chinese owned 37.8 per cent (a considerable part in small estates), Indians a further 2.8 per cent and the other community groups the remaining 0.8 per cent. Malay land-owning households totalled 81.8 per cent of all such households, while Chinese households accounted for 15.9 per cent. The average acreage owned per household was 6.1 acres, but that owned by Malay households (4.4 acres) was much smaller than that of the Chinese (averaging 14.5 acres).

The pattern of land ownership and distribution in Table 10.2 shows that smallholders, aside from smallholder-settlers in FELDA and related land development schemes, still operate uneconomically small holdings, particularly among the Malays. This has been said to be a major cause for low productivity. There is also a considerable percentage of tenancy and share-cropping, with absentee ownership and a lack of effective interest by the owners in the management

TABLE 10.2
Smallholder Tenure Status and Farm Size,
Peninsular Malaysia, 1970

	<i>Number of Holdings (%)</i>	<i>Average Areas Farmed (acres)</i>
Owner-operators	64.9	5.7
Tenant-operators	23.5	3.9
Owner-tenant operators	11.6	6.8
Total	100	5.4

Source: Selvadurai, 1978.

of their land. Similarly, incentive for land improvement and good management by tenants or co-owners is low because the benefits and advantages gained will accrue mainly to the owners.

Land tenure issues are most prominent in the rice sector, which covers about 1.5 million acres and provides a livelihood for about 300,000 families. Here, instead of being a disincentive, the land tenure system can provide a social and political environment conducive to economic growth. The Agriculture Survey of 1960 reported that yields were highest for tenant-operated farms and lowest for owner-operated farms. This pattern of yields was partly attributable to the widespread use of chemical fertilizers and more intensive use of labour on tenant and owner-tenant operated farms.¹ In addition to high yields, some studies reported that net family income was highest for owner-tenants, followed by owner-operators and lowest for non-owner tenants (Bhati, 1971, and Fujimoto, 1979). This is especially so where the incentives from the land tenure system (and related programmes) encourage technological improvement and capital formation to increase output. Land tenure legislation providing for rent control and security of tenure have had positive effects on output and efficiency in padi production. The legislation passed in 1967² has raised the status of the tenants to a position more nearly similar, from the standpoint of economic incentives, to that of owner-operators.

OUTPUT AND PRODUCTIVITY

The agricultural and rural population derive their living, in the main, from the cultivation of padi, rubber and coconut holdings, from horticulture, and from fishing in coastal waters. Output and productivity among smallholders has been low in the past, both per person and per unit of cultivated land. There are institutional factors in the social and economic organization of the agricultural sector that tend to keep productivity low. However, over the last decade, smallholder agriculture has made significant progress both in total output and in output per unit of land or labour, especially in rubber, coconuts and padi. This has been due mainly to efforts by the Government to improve productivity in existing agricultural

¹This was confirmed by studies undertaken by Smith and Goethal, 1966 and Affifuddin, 1974b.

²The enforcement of this legislation was left to the State governments and it was not fully implemented until the 1970s. The implementation varies between states. Kedah enforced the legislation in 1970, Perlis in 1971, Perak and Kelantan in 1972, Penang in 1973, and Selangor and Trengganu in 1974.

TABLE 10.3
Agricultural Output by Types of Production,
Peninsular Malaysia, 1973-1977

<i>Crops</i>	1973	1974	1975	1976	1977
Estate-type Production:					
Rubber ('000 tonnes)	674	684	597	679	744
Oil palm (palm oil) ('000 tonnes)	556	698	810	867	940
Coconut (tonnes of copra)	20,836	21,095	23,441	21,108	18,990
FELDA-type Production:					
Rubber ('000 tonnes)	38	50	53	58	59
Oil palm (palm oil) ('000 tonnes)	96	139	174	234	295
Unorganized Smallholder-type Production:					
Rubber ('000 tonnes)	753	751	765	827	850
Oil palm (palm oil) ('000 tonnes)	84	102	147	150	209
Coconut (tonnes of copra)	728,360	754,800	910,460	916,120	930,960
Padi ('000 tonnes)	1,727	1,818	1,716	1,746	1,629

Source: Malaysia, 1978a.

areas (*in situ* agricultural development), and to provide better infrastructure and services. In addition, there has been significant technological improvement with the use of high-yielding materials, improved husbandry, and in processing and marketing. The Government's programmes for replanting, land rehabilitation and land development have also helped. Other forms of assistance included credit on favourable terms, and input subsidies on fertilizers, pesticides and planting materials. All these have enhanced productive efficiency.

Given the opportunity and incentives, smallholders have responded positively with improved output and productivity (Table 10.3). This suggests that simple neglect, inefficiency and laziness do not explain the low productivity of smallholders. In fact, low productivity among smallholders over the last decade has been associated more with low technology, slow modernization due to low capital investment, inadequate access to modern inputs and inadequate institutional support.

POPULATION DISTRIBUTION AND EMPLOYMENT

Throughout the 1960s and 1970s, agriculture was still the sector in which by far the greatest part of the population of Malaysia ob-

tained their livelihood and, in the 1960s at least, it was a locus of widespread unemployment and underemployment. In the late 1960s, an estimated 30 to 35 per cent of the rural labour force were affected by unemployment at some time during the year. Prolonged unemployment affected particularly the young: 16.8 per cent of the age group 15–19, 9.1 per cent of the 20–24 group were recorded as unemployed in 1967–8. This situation was associated with the inadequate size and productivity of family holdings and the very limited scope of other forms of wage employment in rural areas. Also, the seasonal nature of much agricultural work gave rise to considerable seasonal unemployment and underemployment, particularly in single-crop padi and in fishing.

However, during the 1970s considerable changes took place that altered the employment situation in many parts of the rural areas. Significant components in these changes were:

1. The wider adoption of multiple-cropping in some major padi areas, which did something to reduce the seasonal unemployment and underemployment there.
2. The rapid growth of labour-intensive industries in many urban regions, which caused a sharp increase in the offtake of young male and female workers from the rural areas.
3. The further rapid progress with the government programmes of new land settlement, which settled considerable numbers of families in farm situations where adequate on-farm employment was available.
4. The gradual penetration of the traditional smallholder areas by extension workers and by agricultural support institutions, bringing more traditional smallholdings into the scope of new technology, replanting and higher productivity.

Whilst these changes relieved the unemployment situation in some parts of the rural areas, the effects were uneven, and many of the poorest areas had not benefited greatly by the end of the 1970s. Poverty, also, was only relieved significantly in some parts. In others, the loss of young labour could not be made up by the work of the older remaining village people, and production in some areas declined more than the population as a result.

Table 10.4 shows some of the trends in agricultural employment between 1975 and 1980. Of special interest here is the virtual stagnation of agricultural employment amongst Malays, whilst employment of other races increased. Despite their smaller size, the other racial groups increased their employment not only relatively, but absolutely more than the Malay group. Even the minute 'other' group, scarcely 1 per cent of the Malay numbers in 1975, increased by 1,800, compared with the Malay decrease of about 8,900, whilst

TABLE 10.4
Employment in Agriculture in Peninsular Malaysia,
1975 and 1980

Community Groups	1975		1980	
	Agricultural Workers ('000)	%	Agricultural Workers ('000)	%
Malay	1,029.1	69.6	1,020.2	66.3
Chinese	282.8	19.1	306.1	19.9
Indian	154.4	10.5	199.4	13.0
Others	11.6	0.8	13.4	0.9
Total	1,477.9	100.0	1,539.1	100.0

Source: Malaysia, 1979c, 1981.

Note: Comparable information for Sabah and Sarawak is not available; but it assumes a similar pattern with the Bumiputra being predominant in agriculture.

the increase in Chinese and Indian agricultural employment was considerably greater. This result appears to have been due to the effectiveness of Government policies in accelerating the movement of young Malays from rural to urban areas. This may increase further during the 1980s if the boom in urban industrial employment continues. It has even caused a shortage of labour in some rural areas, with the result that an increasing acreage of small and medium holdings was beginning to be underutilized due to unavailability of labour, and this was accompanied by a decline in the growth of production.

On the other hand, by no means all the young people who moved to the towns for employment managed to secure a paying job. Thus total unemployment was not reduced by nearly as much as the agricultural workforce; for many it was merely the location of their unemployment that changed, whilst for others it was a move from secure traditional employment to unemployment in a harsher, if more exciting, environment. It will be of considerable interest to see what the 1980 census reveals regarding changes in the distribution of rural population and employment.

It is unfortunate that there are no adequate data from which to judge clearly the changes that have been occurring in the rural and agricultural population of Sarawak and Sabah. However neither new land settlement nor industrialization has proceeded as far or as quickly there during the 1960s and 1970s, and it is reasonable to think that serious shortage of agricultural labour there is likely to persist at least until the 1990s. In other respects, such as the predominance of Bumiputra in agricultural employment and the relatively undeveloped state of traditional agriculture, the situa-

tion in Sabah and Sarawak has been partly due to the significance of shifting cultivation amongst the traditional smallholders.

INCOMES AND POVERTY

Agricultural incomes derive mainly from rice, rubber, oil palm, coconuts, pepper (in Sarawak), diverse horticultural crops and from fishing in coastal waters. These activities, where undertaken on a smallholder scale, are predominantly in the hands of the Bumiputra sector, but generally the large-scale enterprises are primarily in the hands of other racial groups. The same is observed in the case of livestock enterprises and timber. This affects the division of agricultural incomes between Bumiputra and non-Bumiputra. The latter are the minority in agriculture, but obtain higher incomes per head because the larger-scale operations are more lucrative (see Table 10.5).

There are indications that the incomes of the agricultural population are increasing. However, the increase for the Malay rural population, excluding the smallholder-settler in FELDA-type schemes, is still less than that of the non-Malay rural population. In addition, using the Economic Planning Unit's poverty line of \$300 per household per month, a significant proportion of Malay rural households are below the poverty line.

The majority of the poor households are in the rural sector, and most of these are Bumiputra directly engaged in the cultivation of padi, rubber, coconuts, mixed agriculture and fishing. Those in FELDA and other public or state land schemes, and some padi irrigated areas (particularly Muda, Tanjong Karang, Kemubu and parts of Krian) are considerably better off.

The problem of poverty has been viewed largely as a rural (and agricultural) problem. Its prevalence cuts across both racial and regional lines although its incidence is more concentrated and wide-

TABLE 10.5

Peninsular Malaysia: Mean Monthly Household
Income of the Lower Four Deciles,*
1970, 1976 and 1979
(in M\$)

	<i>Malay</i>	<i>Chinese</i>	<i>Indian</i>	<i>Others</i>	<i>Total</i>
1970	56.76	135.93	112.48	44.72	75.90
1976	101.95	247.27	197.21	107.08	142.19
1979	140.35	280.11	263.43	154.37	186.19

Source: Malaysia, 1981.

*This refers to the lowest 40 per cent of households in the size distribution of income.

spread among the Bumiputras, both in Peninsular Malaysia, and Sabah and Sarawak. During the 1970s, although the agricultural sector, and particularly the smallholding segment, has shown a fairly high rate of growth, poverty still remains;¹ and it will continue to be a major feature in the Malaysian agricultural and rural sector in the 1980s.

STRATEGIES OF AGRICULTURAL DEVELOPMENT

Since the early 1960s, rural development in Malaysia has been increasingly organized and planned. The ultimate aims of this planning were to increase the national income and to alleviate poverty. This has been attempted through expansion of production, particularly of export crops, and through the modernization of traditional agriculture, both of which are expected to increase rural incomes and employment.

The strategies employed to these ends have included:

1. Intensification, that is enhancing the productivity of existing landholdings through the application of new technology, improved planting materials, fertilizers, better irrigation and pest and disease control. The various rubber replanting schemes are examples of this strategy.

2. Extensification, that is extending the area of land in production by bringing new land under cultivation.

3. Diversification, by increasing the range of products produced through the introduction of wider cultivation of new crops such as oil palm or cocoa, or by increasing the value added to processing before export, thus increasing the opportunities for rural wage employment.

Many forms of special incentives were used in support of these strategies, but there were in effect two main types. First, there was an increasingly discriminatory input subsidy policy, covering technical advice, contract services, supply of special inputs such as fertilizer, planting materials and chemicals, irrigation water, drainage, credit and the like, in which the inputs were either directly subsidized, or were supplied on more favourable terms than would have been possible without government intervention. Secondly, there were measures of price support, primarily applied to rice—for which it had long been used to encourage Malaysian production of its staple food—and to some extent to rubber, through government intervention in the market as a buyer when prices were par-

¹ According to the TMP review the incidence of poverty in the agricultural sector declined from 63 per cent in 1975 to about 54.6 per cent in 1978.

ticularly low. These special measures affecting incentives were complemented by considerable development of the physical infrastructure in rural areas and the improvement of rural amenities.

During the 1970s, in particular, these measures had some success, and the efficiency and incomes in the agricultural sector showed some improvement. However, it was not sufficient to eradicate, or even greatly to alleviate, the incidence of poverty in some areas, and more remains to be done in the 1980s. The long record of fluctuating prices for agricultural export commodities, and the prospect of Malaysia's oil reserves being run down during the 1980s, leave no room for complacency. The maintenance of Malaysia's already enviable reputation for efficient production of export crops will continue to be a policy issue of the greatest importance, and internal social and economic conditions make it necessary that this should be achieved in the 1980s very largely through continued improvement to the smallholder sector.

DEVELOPMENT OF THE SMALLHOLDER SECTOR

Progress in new land development has been quite remarkable (see Table 10.1). The land development and settlement programmes are varied and the FELDA schemes, in particular, create productive employment, provide ownership of an economic-size holding, and a capacity to earn an income well above the average for Malay rural households. In 1977, the estimated average family incomes for settlers in FELDA oil palm and rubber schemes were \$1,552 and \$759 per acre respectively. FELDA schemes also contributed about 25.3 per cent of total crude palm oil production and 4 per cent of total rubber output in Malaysia in that year.

New land development, however, involves some conflict between different policy objectives. The large-scale land development programmes, particularly those of FELDA, require heavy financial support from public funds. The costs are greater than for *in situ* land development in already established agricultural areas, and are high in comparison with other smallholder schemes in South-East Asia and in Latin America (see Hartley, 1968, and Radin, 1971). A balance has to be worked out between attainment of employment and output objectives on one hand, and high investment cost on the other, for there will always be alternative uses for such funds as are available for public investment.

A related issue is that new land development benefits directly only a relatively small group of people, despite the heavy financial cost. A scheme of 5,000 acres providing about 10 acres per settler

can only absorb about 400 to 500 settler families. By the end of the 1970s, there were 262 FELDA schemes which had settled about 52,000 families. Although this had created a relatively wealthy class of peasant farmers on the lands opened up, the percentage of Malay families so benefited was still small. With the rapid increase in rural population, the total number needing resettlement remained very large and rising. To meet an increasing proportion of this through FELDA-type schemes would place a tremendous strain on the available resources, both physical and financial, and even the scale of new land development achieved in the 1970s may be difficult to sustain for long. Possibly, on the basis of effective allocation and equity, the land development programmes should be designed to absorb more settlers on smaller farms and at a lower, but still above average, income level.

In situ development has been significant in providing improved drainage and irrigation respectively for padi cultivation. It has also helped to intensify land use and to diversify agriculture through replanting, land rehabilitation, improvement of infrastructural facilities, and raising agricultural incentives. It has helped to modernize a considerable part of traditional agriculture, and the range of agricultural activity has been extended. There has been growth in agricultural production (see Table 10.3), and the productivity of labour has improved. *In situ* development has involved increased capital investment, the spread of new technology through high-yielding varieties, and the use of improved cultivation practices involving chemical fertilizers, pesticides and other modern inputs. This has been complemented by the provision of special incentives, including input subsidies and other forms of financial assistance.

However, the modernization of agriculture through *in situ* development has accentuated some of the inherent conflicting tendencies between its objectives. In the case of padi, seed and fertilizer technology increase yields, but it also requires more labour and capital per acre. However, because of the efficiency of such complementary inputs as fertilizers and water, the labour requirements per acre do not increase as rapidly as yields per acre.

A related issue is mechanization. This is an important component in the technology of multiple cropping and can assist in the increase of yields through more timely and effective land preparation. In padi farming,¹ mechanization provides an answer to the seasonal shortages of labour during peak periods. This increases agricultural output and it also increases the demand for labour in other parts

¹ Of the farmers in the Muda area, 90 per cent use tractors for preparing their land. Mechanization is widely used in most double cropping padi areas:

of the year. However, farm mechanization also may be used to replace labour on farms where farmers are already underemployed. But confining the use of machines to operations in peak periods would mean their underutilization, thus increasing the costs of mechanized operations. Consequently in rice production, the available resource, be it labour or machines, will be underutilized at certain periods during the production cycle unless they can be diverted to other types of production. A study made in early 1970 (Affifuddin, 1974b) showed that 7 per cent of the farm labour force was displaced by machines in land preparation and 1.2 per cent in harvesting. The problem of labour displacement by mechanization would be most serious in the padi sector, though at the beginning of the 1980s harvesting was still not by any means fully mechanized despite a strong trend towards it. Displacement of labour in agriculture causes some dislocation because the displaced labour, in most cases, is not readily absorbed into other sectors due to lack of appropriate skills.

While *in situ* development has achieved a great deal in terms of increased production, nevertheless input subsidies, subsidized credit systems and other forms of support involve an uneven allocation of public development expenditure. For example, padi farmers in irrigation schemes generally receive more support than their counterparts in unirrigated schemes, while settlers under FELDA schemes are more favoured than those under FELCRA and other land schemes. This discriminatory allocation of public support is neither an efficient nor an equitable strategy.

During the 1970s, institutional development in Malaysia has led to a proliferation of government agencies. The intention was to develop a more effective machinery for providing agricultural supportive services needed by farmers, including extension, training, credit, subsidies, research, marketing and processing. The agencies created include the National Padi and Rice Authority (LPN), Farmers' Organisation Authority (FOA), MAJUTERNAK, MAJUIKAN, RISDA, FELCRA, FELDA, Federal Agricultural Marketing Authority (FAMA) and Malaysian Agricultural Research and Development Institute (MARDI). Their existence has to a large extent affected changes in the social, economic and physical environment of the agricultural sector, but it is questionable whether the number and diversity of such institutions are either necessary or efficient.

In the bureaucratic framework prevalent in Malaysia, such proliferation often results in inefficiency, excessive formalism and inappropriate attitudes by the administrative class, and this can lead to corruption and nepotism. It also produces a discriminatory allocation of public expenditure and political interference. This can

adversely affect the delivery of inputs to the farming population. For example, by the end of the 1970s there were more than six agencies directly or indirectly responsible for the provision of subsidies, inputs and other financial and technical assistance to padi farmers alone.¹ Coordination among the agencies, particularly in the provision of extension services and production incentives, has been less than effective. Competition, duplication and disjointed provision of complementary services still occur. This situation, if allowed to continue, not only wastes public resources but also causes confusion among farmers. Considering the extent of investment in these agencies, the need for a more structured set of client-oriented institutions is obvious and urgent.

However in general, agricultural strategies in Malaysia have had considerable success. During the 1960s and 1970s, there was an increase in production of both food and export crops. The quality of life among the farming population also improved, and many have had access to better social and economic amenities. Although these strategies have improved the efficiency of agriculture, and transformed the sector structurally, they cannot yet be said to have made a significant impact on the problem of rural poverty, at least at the macro level.

FUTURE DEVELOPMENT AND PROSPECTS IN AGRICULTURE

As Malaysia entered the 1980s, there was still a strong need, and scope, for further agricultural development. There are many inherent constraints, both internal and external, on the process of developing the rural sector, and especially in dealing with traditional smallholders. Persistent poverty, fluctuating international markets, rapid population growth, shortage of labour, appropriate technology, and a multitude of other socio-economic problems remain major issues in the future development of the agricultural sector.

Concentration on tree-crop agriculture, irrigated padi and a limited number of other smallholder crops, using strategies of new land development, increased irrigated acreages, *in situ* development and diversification had, up to the end of the 1970s, all made contributions to agricultural development in Malaysia. This development has had social, economic and political results that have had a generally favourable influence on social and political stability in the

¹The agencies include Ministry of Agriculture, Department of Agriculture, LPN, MARDI, Muda Agricultural Development Authority (MADA), Drainage and Irrigation Department (DID), Bank Pertanian Malaysia (BPM), FAMA, etc.

country. These results have affected the agricultural sector not only in Peninsular Malaysia, but also to some extent in Sabah and Sarawak.

Prospects for agriculture in the 1980s and 1990s will naturally have to depend upon many of the strategies applied in the 1960s and 1970s. New land development and settlement based on tree crops will remain an important feature. Rubber, oil palm and more recently cocoa, provide an economically viable investment when their prices are favourable, as they have been at the beginning of the 1980s. The export prices for all major primary agricultural commodities improved significantly in the late 1970s. The rise in petroleum prices and their effect on the production costs of synthetic rubbers has consequently improved the competitive position of natural rubber. This has increased the world demand for natural rubber (Lim S. C., 1977), and the average rubber price (RSS1, f.o.b.) for 1979 was estimated at about 275 cents/kilogram. In the case of palm oil, prices were favourable in the late 1970s due to the tight supply situation in the world market for oils and fats. Exports of palm oil have increased in quantity, with a considerable increase in the proportion exported in processed form, due to the expansion of the domestic processing industry.

With rubber prices high and other major primary commodities maintaining their competitive strength, the prospects for the main Malaysian primary commodities appear generally bright, and this may well continue during much of the 1980s and 1990s. They will provide an important source of government revenue and, when extended more widely on a smallholder basis, will bring '... those from the poor group to the level of the middle class society ... thereby ... maintain the present political stability'.

Another feature that will remain important, at least in the 1980s, is *in situ* agriculture,¹ as new land development can only cater for a small percentage of the rural population.

Moreover, at the beginning of the 1980s, there were large areas of land in Peninsular Malaysia, Sabah and Sarawak, which have been alienated for agriculture but remain idle and are not being used for crop production. *In situ* development will not only encourage optimization of agricultural land use, but through the provision of improved infrastructure, institutions and services will also diversify farm production. Compared to new land development, *in situ* agriculture will benefit a larger number of poor farmers at a relatively

¹ During the 1971-5 period about 11 per cent of the cultivated area, mainly rubber, coconut, padi and fruit orchards, were improved and this amounts to approximately 750,000 acres. The improvement of existing agricultural land over the TMP and in the 1980s and 1990s will surely be enlarged.

modest investment cost. Income distribution will then be improved and inequalities reduced significantly.

In the context of the NEP, and where the main thrust has been poverty eradication, the expansion of irrigated padi is important. Padi has special socio-economic significance. It provides livelihood to a substantial percentage of peasant families, nearly all of whom are Malays and politically influential. It is important because it can contribute to political stability, and also because it is the sub-sector with the highest poverty incidence.¹ Development programmes in the padi sector, up to the end of the 1970s, had raised the production of rice farms and improved employment and income levels. A greater emphasis on the cultivation of irrigated padi in the 1980s and 1990s will further increase productivity and income, and thus further reduce the incidence of poverty.

Agriculture also provides scope for the development of agro-based industries as a linkage between agriculture and the industrial sector. The wide range of agricultural products produced in the country offers considerable scope for investment in the processing of agricultural products, including livestock, fish, rubber and oil palm products. In these activities there are opportunities for enhanced employment and for capital investment that will be of benefit to the agricultural sector and to the economy as a whole.

The continuation of these development trends into the 1980s and 1990s will require further massive resources, both physical and financial. It is, however, essential that these resources be mobilized for this purpose because a vigorous and prosperous agricultural sector has always been fundamental to the economic, social and political development of Malaysia. There is a danger that this could lead to long-term dependency of the farming population on public support, and ultimately exhaust the available resources. This will need to be guarded against. However in Malaysia, social and political stability has always been, and will continue to be, given priority over other policy commitments of the Government.

Generally, however, uncertainty will continue, as always, to be a major factor in agriculture, and the future development of agriculture will be affected internally by changing relationships between agriculture and the non-agricultural sectors, and externally by the world market for primary commodities, which has been the force behind most of the development of the agricultural sector in the past.

¹In 1978, 74 per cent of rice farmers were said to be in poverty and the relative incidence of poverty was higher in rice cultivation than for any other agricultural crop.

CONCLUSION

The importance of the sector in the economic, social and political development of the country has encouraged ambitious and expensive development programmes through which agriculture in Malaysia has achieved a status well beyond that in many other developing countries. Malaysia has exceeded the achievements of other countries in many areas, particularly in the production of rubber and oil palm where it has become the major world producer.

Success in agricultural development in Malaysia is not without shortcomings. Consciously or otherwise, the development and growth of modern smallholder agriculture during the past few development plan periods has created an 'elite' class of small middle class farmers whose incomes and life style are discernibly different from those of the general masses in the agricultural sector. It has also added a new dimension to the Malaysian agricultural sector. From being a dualistic sector divided between the highly capital intensive and efficient estate segment and the traditional backward peasant segment, a third structure has arisen dividing the peasant component between the middle class farmers and the poor farmers. This has created economic disparity both between the estate and peasant segment and within the latter.

Other things being equal, agriculture will continue to be the long-term base of the Malaysian economy through the 1980s and 1990s. Its development towards the economic, social and political objectives of the Government will also continue to demand public sector support on a substantial scale.

11 Extractive Industries

UNTIL 1972, Malaysian export trade was dominated by various agricultural and mining commodities. The most important were rubber, tin, palm oil and timber, in that order. Since 1972, the spate of oil and gas discoveries and the rapid development of off-shore production have greatly increased the proportion that crude petroleum plays in the export pattern, and this in turn has been expanded enormously in value by the increases in the price of crude petroleum during the 1970s. At the same time, production of iron and bauxite has been greatly reduced, whilst tin resources have been constrained in quantity of production, though price increases have helped to sustain the export value. By 1979, the export of petroleum oil and gas had risen to second position (behind rubber) in value of Malaysian exports, but it seemed poised to become the most important in the 1980s.

MINERAL RESOURCES: TIN

Malaysia has been the world's largest tin producer, with between 30 and 35 per cent of the world's primary tin production during the 1970s. Virtually the whole of the tin output is exported, and it has made a very substantial contribution to the national economy. During the 1970s, it accounted for about 70 to 80 per cent by value of Malaysia's mineral production (excluding petroleum) and was a significant employer of labour. In fact it has been said that the early economic development of Peninsular Malaysia resulted from the initial development of the tin industry.

Tin Resources and Reserves

The Kinta valley has been by far the most important of the tin mining areas in Malaysia, and to the end of the 1970s had produced more than half the total Malaysian output. Perak and Selangor were the major producing states, with minor but increasingly important contributions coming from Negri Sembilan and Pahang in the 1970s.

During the 1970s, a feature of the tin mining industry has been the greater concentration of mining on lands with poorer grades of tin, and on areas previously worked over. This has been made economically worthwhile by the use of superior techniques (principally dredging) and by higher prices. The poorer grades of alluvial tin are the main reason for the decline in volume of the industry's output.

However, continuation of the improvements in technology and the trend towards higher prices may reverse this. There are good prospects of finding lode tin deposits in the mountain ranges and in the hilly areas of Pahang, Kelantan and Trengganu. These areas have not received much attention in the past because the technology and facilities for underground mining were inadequate. In addition, the cost of exploring and developing such deposits is high. With higher tin prices and more advanced technology, the exploitation of some primary hard-rock tin deposits may become economically feasible, possibly in the late 1980s or in the 1990s.

Alluvial tin deposits are known to exist offshore in the Straits of Malacca. There are also some onshore alluvial deposits known or remain to be discovered, but such deposits will probably be deep-seated under thick layers of barren overburden. These unexploited deposits are more difficult to locate and mine than the deposits being mined in the 1960s and 1970s. The very large alluvial deposit discovered at Kuala Langat, Selangor, during the late 1970s is of this type. It is believed to be the largest single deposit so far discovered in the world, extending over 40,000 acres with proven reserves estimated at 5 million piculs (30,000 tonnes) worth M\$6 billion at 1978 prices (ARB, Jan. 1978). The deposit has problems of access as it is more than 150 feet below the surface and extends to beyond a depth of 250 feet. Since official estimates of 'reserves' are calculated on what can be recovered with known technology and at current prices, further increases in the world tin prices together with improvements in mining technology will correspondingly increase the estimated Malaysian tin reserves. It must be remembered, however, that the same effect is true for all other recoverable reserves in other parts of the world.

At the end of the 1970s, known world reserves of tin were said to amount to about 10.2 million tons, of which almost 50 per cent were in Malaysia, Thailand and Indonesia. If this is true, there may be long-term prospects for an increasing imbalance between supply and demand for tin, and that Malaysia should be in a position to benefit from price increases resulting from that imbalance. Accordingly there do seem to be good grounds for believing that tin will remain an important source of foreign exchange and a significant employer of labour in Malaysia during the 1980s and 1990s.

Structure of the Tin Industry

The world tin mining industry is less integrated than most other mining groupings.

Tin is mostly mined by large numbers of small- and medium-sized independent producers, and in Malaysia at the end of the 1970s there were some 900 mines owned and operated by a considerable number of individual companies and partnerships.

Smelting of tin, on the other hand, is a very much more concentrated industry. Unlike petroleum, the processing of tin is undertaken by companies quite separate from the producers, and many of the smelting companies around the world are very large. Two smelting companies operating in South-East Asia control 40 per cent of the world's total tin smelting capacity.

The very early tin mining was in the hands of the Malays, but from 1850 to 1900 Chinese immigrants became predominant in the industry. After 1900 European enterprises with large amounts of capital, modern mining techniques, scientific methods of prospecting and certain political advantages replaced the Chinese as the largest producers. In 1963, 60 per cent of tin produced came from 100 foreign controlled mines (British, French, Australian and American) and the remainder from locally controlled, mainly Chinese, enterprises. By the beginning of the 1970s, however, foreign control of the tin industry had waned.

The initial impact of tin mining on Malaysian society was relatively small. It was a good example of an exporting industry working as an economic 'enclave'. Almost all the skilled labour had to be imported from China. If Malays took part at all, it was as unskilled labourers on short contracts. By accident or design a monopoly of this employment was maintained by the imported Chinese labour force which quickly acquired a vested interest in the status quo.

Nearly 95 per cent of Malaysia's tin output has been obtained from alluvial deposits. The main mining methods used are dredging and gravel pumping, which accounted for more than 85 per cent of the total tin output and generated 70 per cent of employment in tin mining in 1963.

Dredging is the largest single producer in the industry. There were 66 mines (less than 10 per cent) using dredges in 1963 but these contributed about 46 per cent of total tin output. However, gravel pump mining was the most common method, accounting for about 80 per cent of all mines, which contributed about 40 per cent of total output in that year. Over the next 10 years to 1974 the distribution of output by mining methods changed considerably. Gravel pumping replaced dredging as the most important method of mining. The share of gravel pumping increased from 48.5 per cent

in 1965 to 55 per cent of total tin output in 1979, whereas dredging declined from 39.2 per cent to 32 per cent over the corresponding years.

At the end of June 1979, there were 904 active tin mines in Malaysia compared to 961 in 1975. Of the total, 811 were gravel pump mines (89.7 per cent), 54 dredges (6 per cent), 23 underground mines (2.5 per cent) and 16 others (1.8 per cent). Dredges accounted for about 32 per cent of the total production, while gravel pump and underground sectors contributed 55 per cent and 3 per cent of production respectively (see Malaysia, 1979b: 126-8). Of the 54 dredges in operation in 1979, only a small proportion were owned by Malaysians. And of 811 gravel pump mines, only 24 were owned by Malays. Since gravel pumping predominated in numbers and share of output, it is clear that the Chinese dominated the tin mining industry in Malaysia at the end of the 1970s. One factor responsible for this was the Malaysianization process and the 'buying in' by various government bodies of foreign mining interests which reduced the number of foreign owned establishments in tin mining over the years.

Tin mining is the largest employer of labour in the mining sector, and the number of workers employed has increased in recent years. In 1968, about 39,200 workers were mining tin and at the end of June 1975 there were 41,000. The increase was associated with the expansion of output, and by 1978 26,700 people were engaged in gravel pump mining, 6,868 in dredging, 1,506 in open cast mining and 1,639 in underground mining, making a total of 36,713 (ARB, 1979a).

Production and Export of Tin Concentrates

During the 1970s, the largest consumers for Malaysia's tin were the United States, the European Economic Community (EEC), Japan and the Netherlands which took 33.7, 24.7, 22.7 and 17.8 per cent respectively in 1978.

Tin prices reached record levels in 1978 at \$1,743 per picul or \$29,260 per ton in the Penang market, compared to \$665 per picul or \$11,165 per ton in 1970. This significant increase was due to strong demand and tight supply in the tin market.

After 1972, Malaysian production of tin began to decline. This decline continued until 1977 when production was down to 58,700 tons as compared with 73,800 tons in 1970. There were two main causes for this decline. First, lower grades of ore were being mined as the better alluvial deposits became worked out. Secondly, the International Tin Council imposed export controls in April 1975 to correct an over supply of tin in world markets.

In 1978, however, the situation was reversed. Tin prices began to increase sharply early in 1977 due to a shortfall in world supply and delays in the releases from the United States government stockpile. As a result of this, and of increased investment in the industry induced by government incentives, tin production began to increase again. Production in that year rose to 62,600 tons which, though still below the 1970 figure, was 3,900 tons more than in 1977. Government intervention took the form of some tax concessions in the 1978 and 1979 budgets, as well as its contribution to the buffer stock. As a result of the inflation of tin prices, Malaysia's export receipts from tin were about M\$2,022 million in 1978, compared with M\$1,013 million in 1970, a twofold increase in eight years despite the lower quantity produced.

Cost of Production

Costs of production in the tin industry can be measured in two ways, either by the cost of extracting tin metal per cubic yard of ore in the ground, or by the cost of extracting 1 picul of tin metal from the ground. Each has its own significance. Owing to inflation, the unit costs of production increased considerably in the 1970s (see Table 11.1).

In Malaysia, the unit cost of production for underground mines in 1978 was M\$1,737 per picul, gravel pump mines M\$1,547, dredges M\$1,123 and open cast mines M\$1,057. The weighted average cost of production for all types of tin mining in the second half of 1978 was M\$1,443 per picul. Between January and June 1979, costs increased further due to the increase in the costs of fuel and equipment, which were major components in production costs.

TABLE 11.1
Unit Costs of Tin Production, Malaysia, 1972-1976

Year	Dredging		Gravel Pumping		Open Casting		Underground	
	£ per Cubic Yd. Ore	\$ per Picul Tin Metal	£ per Cubic Yd. Ore	\$ per Picul Tin Metal	£ per Cubic Yd. Ore	\$ per Picul Tin Metal	£ per Cubic Yd. Ore	\$ per Picul Tin Metal
1972	46	439	97	541	243	541	4,551	511
1973	48	462	105	591	184	439	4,835	574
1974	52	721	119	974	303	699	5,037	571
1975	61	698	114	926	431	1,071	n.a.	952
1976	54	775	116	1,068	335	1,244	n.a.	1,141

Source: Majid and Cheong, 1977: 25.

The Malaysian average cost of production is lower than that of most other tin producing countries. For Bolivia, the average cost ranged from M\$1,700 to M\$2,000 per picul, because of underground mining, while it was M\$1,191 for Thailand, M\$1,303 for Indonesia and M\$1,101 for Australia (ARB, 1979a).

Table 11.1 shows the very significant increasing trend of costs during the mid-1970s. It is of some interest that the increases were considerably sharper per picul of tin than per cubic yard of ore.

Several explanations have been offered for the lower rate of increase per unit of ore mined. One source (Majid and Cheong, 1977) suggests that economies of scale and new techniques (e.g., near dry earth-moving methods) have reduced some operating costs, despite inflation. On the other hand the depletion of the richer tin-bearing deposits, leading to lower yields of tin per unit of ore treated has increased the number of cubic yards of ore that has to be mined to obtain a picul of tin. This, together with higher levels of export tax on tin metal (see Table 11.2), explains the sharper increase in the costs calculated per unit of tin produced.

All costs increased during the period but, with the exception of taxation, their proportion to total costs grew smaller (see Table 11.2). Power costs (mainly derived from oil prices) increased substantially with the increase in oil prices, which raised the cost of power from \$60.71 for dredging and \$101.68 for gravel pumping mines in 1972 to \$110.67 for dredging and \$230.36 for gravel pumping in the second half of 1976.

In 1972 the dredging sector paid \$100.77 per picul in export duties on tin metal, while the gravel pumping sector paid \$100.82 per picul. With the imposition of an export surcharge in 1974, and a further upward revision of export duty and surcharge in 1976, the amount paid by the dredging sector increased to \$301.94 per picul and the gravel pumping sector to \$269.96.

In fact, of all the major cost items, labour costs increased by the least amount.

Special Problems of the Tin Mining Industry

Although Malaysia was still the world's largest tin producer at the end of the 1970s, the tin mining industry no longer occupied the position of central importance to the economy that it did in the 1960s and before. At the beginning of the 1980s there were several major problems facing the industry. One such problem was how to maintain an adequate level of investment in the industry. During the early 1970s there had been little investment, either in establishing new mines or in expanding old ones. In a number of cases profits had been reinvested outside the industry, and if this

TABLE 11.2
Costs Per Picul of Tin Produced, by Method of Mining

<i>Costs per Picul of Tin: Proportions (%) to</i>	<i>All Methods Weighted</i>							
	1972	1973	1974		1975		1976	
			<i>Jan.-June</i>	<i>July-Dec.</i>	<i>Jan.-June</i>	<i>July-Dec.</i>	<i>Jan.-June</i>	<i>July-Dec.</i>
1. Power costs	17.08	16.83	15.71	17.04	19.09	20.16	19.21	18.06
2. Labour and salaries	22.03	22.19	18.54	19.93	22.81	22.18	21.24	18.68
3. Materials	13.30	13.41	12.41	13.49	13.87	13.12	12.73	11.79
4. Depreciation, overhead, realization on property development and exploration, and other charges	23.17	22.94	19.75	15.94	17.78	18.47	17.88	16.78
5. Tributes	4.52	4.19	5.38	3.88	3.22	4.20	4.06	3.65
6. Royalties, export duty and surcharge	19.90	20.44	28.24	26.67	23.23	21.87	24.88	31.63
Cost of production \$/picul	505	540	800	870	840	855	930	958

TABLE 11.2 (continued)

Costs per Picul of Tin: Proportions (%) to	Underground Mining							
	1972	1973	1974		1975		1976	
			Jan.-June	July-Dec.	Jan.-June	July-Dec.	Jan.-June	July-Dec.
1. Power costs	14.26	13.63	12.23	8.01	9.31	9.37	9.26	8.38
2. Labour and salaries	48.50	48.42	35.65	37.08	39.41	41.97	40.94	34.58
3. Materials	8.20	10.40	13.12	14.40	15.90	15.07	15.09	13.91
4. Depreciation, overhead, realization on property development and exploration, and other charges	13.95	9.55	6.61	13.47	12.14	10.93	13.07	11.29
5. Tributes	—	—	—	—	—	—	—	—
6. Royalties, export duty and surcharge	15.19	18.00	32.39	27.04	23.15	22.06	21.64	31.84
Cost of production \$/picul	510	575	830	872	890	950	1,025	1,140
	Dredging							
1. Power costs	13.83	13.04	10.29	10.90	14.16	15.59	14.57	14.28
2. Labour and salaries	19.64	19.53	15.70	16.55	17.61	17.67	16.08	14.86
3. Materials	18.17	16.19	14.22	16.15	16.39	16.53	15.03	13.48
4. Depreciation, overhead, realization on property development and exploration, and other charges	23.58	25.46	20.64	22.36	22.09	22.26	21.91	16.12
5. Tributes	1.01	2.01	2.75	2.02	1.98	2.26	2.57	2.00
6. Royalties, export duty and surcharge	22.97	23.77	36.40	32.02	27.77	25.74	30.44	38.96
Cost of production \$/picul	439	462	662	723	699	699	780	775

TABLE 11.2 (continued)

Costs per Picul of Tin: Proportions (%) to	Gravel Pumping							
	1972	1973	1974		1975		1976	
			Jan.-June	July-Dec.	Jan.-June	July-Dec.	Jan.-June	July-Dec.
1. Power costs	18.83	19.28	19.09	20.75	22.65	23.62	23.04	21.57
2. Labour and salaries	22.03	22.65	19.27	21.05	23.11	21.52	21.09	18.21
3. Materials	11.50	12.15	11.74	12.61	13.26	12.13	12.04	11.06
4. Depreciation, overhead, realization on property development and exploration, and other charges	21.84	21.75	19.14	16.76	15.83	16.97	16.08	16.13
5. Tributes	6.17	5.49	6.90	4.26	3.88	5.21	5.17	4.85
6. Royalties, export duty and surcharge	18.63	18.68	23.85	24.06	21.27	20.55	22.58	28.18
Cost of production \$/picul	540	590	894	975	914	925	1,010	1,068
Opencast Mining								
1. Power costs	15.04	9.88	6.24	4.69	5.84	7.83	8.73	5.53
2. Labour and salaries	14.97	16.79	15.00	13.74	39.72	44.96	44.90	39.83
3. Materials	10.23	8.15	9.01	8.14	5.98	5.18	4.92	8.16
4. Depreciation, overhead, realization on property development and exploration, and other charges	32.43	34.67	32.22	36.64	12.07	20.77	20.16	20.11
5. Tributes	0.97	2.87	4.63	4.51	3.49	4.30	2.70	2.51
6. Royalties, export duty and surcharge	21.36	27.64	32.90	32.28	22.90	16.96	18.59	23.86
Cost of production \$/picul	540	440	624	700	880	1,070	1,200	1,450

Source: Private communications with the Department of Mines, Kuala Lumpur.

Note: In opencast mining contract labour costs were included after 1974, but not before.

continues it will mean that production may decrease in the 1980s.

Another problem has been the rapid increase in production costs. According to *Mining Magazine* (1976) the massive increase in oil prices in 1973 and 1974, together with the world-wide recession that followed, were still affecting the industry in 1976. The recession brought about a fall in the demand and price for tin, which led several companies to stop or curtail operations, at least for short periods. However when the world economy picked up again in 1978 the demand for tin increased, the supply situation became tight, and prices rose very rapidly to reach new heights.

It is therefore not present demand on prices for tin that causes the problem for the industry, but the possibility that further downturns in the world economy will cause similar catastrophic falls in tin prices at some future date.

Another special problem has been concerned with the tax structure, and with the control of mining land by state governments. There is general agreement that about 70 per cent of Malaysian tin mining profits go towards taxes (Appendix A). The Federal Government raises a total of eight taxes, direct and indirect, on the tin mining industries. These are export duty, export surcharge, income tax, development tax, tin profits tax, import surcharge and sales tax. Of the proceeds, only 10 per cent of the export duty was paid to the state governments. Until 1979, 90 per cent of the export duty, and 100 per cent of the other seven taxes, went directly into Federal Government revenues. This has provided no direct incentive to the state governments to release new lands for mining, and they have been reluctant to do so. As a result, the area of land under mining has tended to remain static in the 1970s.

As Malaysia's existing shallow alluvial tin reserves are worked out, the problem of their replacement becomes increasingly urgent. The problem is largely one of economics. The prospects of discovering new easily worked shallow, rich deposits, such as those worked in the Kinta Valley, seem to be quite remote. On the other hand, deep alluvial deposits, such as those found in the Kuala Langat field, are known to exist, and are both extensive and rich. These, together with undersea deposits in the offshore regions of Perak, make Malaysia's potential reserves of tin very large indeed. The problem is that the costs and risks of this type of mining operation are significantly greater than for the Kinta Valley type, and the technology is different. These are problems that can be solved satisfactorily for Malaysia with adequate planning and support, provided tin prices remain high—but those conditions have to be met if Malaysia's tin mining industry is not to dwindle away in the 1980s.

Owing to the heavy taxation, tin smuggling was on the increase

in the 1970s. According to Government sources, as much as 5,000 tons of tin (equivalent to 7 per cent of national output) worth between M\$110 million and M\$120 million were smuggled out every year, mainly through Singapore. This is estimated to cost the Government between M\$30 million and M\$40 million per year in lost revenue (ARB, Vol. 6, No. 8, 1977).

Another problem that may arise in the 1980s or 1990s is the threat of competition from China. According to estimates, China produces up to 20,000 tons of tin annually and this makes it the world's fifth largest producer after Malaysia, Thailand, Britain and Indonesia. Its output is rising, and it is playing an increasingly important role in the international market. Japan, which imported substantial amounts of tin from Malaysia, may increase its imports from China at the expense of Malaysian exports. There is virtually no international control of Chinese exports as China is not a member in the International Tin Agreement (ITA). It does not seem likely to join ITA in future because it does not depend on tin as a major source of foreign exchange, and it may not wish to be subjected to the various controls imposed by the ITA (ARB, Vol. 5, No. 6, 1975: 145).

On the demand side of the equation, there are developments that may tend to reduce the consumption of tin. Tin is mainly used in the production of tin plate and solder. The major threat has not been the invasion of substitutes as was the case with rubber, but rather the successful development of methods of economizing the use of tin, such as the electrolytic process of tin plating. In addition, the end-use industries are also making efforts to develop tin-free steel for canning purposes.

Malaysia is, of course, not the only tin mining country with problems to solve. Bolivia, for example, is the world's second largest tin producer, but the Bolivians have found it very difficult to attract foreign investment in their mining industry because their tin comes mostly from underground lode deposits, which are very expensive to work. Their costs were very much higher in the late 1970s than those of the Malaysian industry, though as Malaysia is forced to rely on deeper and more expensive workings, this difference may be reduced.

Government Policy Towards the Industry

Despite the problems facing the tin industry, the Malaysian Government intends to maintain Malaysia as the world's top tin producer in the 1980s and has taken several steps to arrest the decline of tin production.

One of those measures has been to reduce the tin export duty

and tin profits tax. In the 1978 Budget, tin profits tax was changed from a flat rate of 10 per cent to a scaled rate according to the amount of profit received. On the first \$200,000, tin profits tax was reduced to 5 per cent, for the next \$200,000 it remained at 10 per cent, and on amounts exceeding \$400,000 it was raised to 15 per cent. The tin export duty was also reduced for prices below \$1,800 per picul. In the 1979 Budget, the Government further reduced the top marginal rate of tin profits tax from 15 per cent to 12 per cent.

In this connection, the Malaysian Government has also abolished the tin surcharge and export duty at prices below M\$207 per picul (ARB, Vol. 7, No. 8, 1978). In order to speed up the process of opening up lands for mining, the Federal Government has agreed to give the states 10 per cent of the combined taxes on tin instead of 10 per cent on the export duty alone. The Federal Government has also assumed responsibility for contributions to the International Tin Buffer Stock.

In October 1975, the Federal Government introduced a 'hardship quota' pool system to keep the marginal miners in production. Under the system, marginal miners who did not have sufficient quotas to meet their production costs could apply for additional quotas from the 'hardship quota' pool. The additional quotas given were deducted from the quotas of other producers who were not using them fully.¹

The Government revised the price of diesel oil twice in 1979 in line with the OPEC price increases. The first revision, in June, provided some benefits to the tin industry. The price of diesel oil was fixed at \$1.20 per gallon for both individual consumers and industries, where previously it had been \$1.18 for individual consumers and \$1.40 for industries (Malaysia, 1979b). However, in September 1979, gravel pump mines were still paying M\$1.60 to M\$1.80 per gallon, much more than the Government price fixed in June (ARB, 1979a).

In December 1979, PETRONAS (the State Oil Company), at the request of the Government, agreed to supply diesel at \$1.27 per gallon to gravel pump mines which had been short supplied by their agents or oil companies.² In 1977, the Government also reduced the import duty on stationary diesel engines from 25 per cent to

¹ The size of the pool was originally set at 605 tonnes of tin concentrates for the period 1 October to 31 December 1975, but the total quota actually distributed was raised to 780 tonnes (ARB, May 1976).

² Oil companies were understood to be charging as much as M\$1.79 a gallon (see ARB, 1979b: 638).

10 per cent, and on water pumps (including spare parts) from 30 per cent to 10 per cent.

MINING IN GENERAL

Besides various measures to stimulate private enterprise in mining, the Government also devised additional incentives to stimulate Bumiputra participation in accordance with the New Economic Policy (NEP). This has taken two directions: (1) to increase direct Bumiputra participation in the industry and (2) the acquisition, by government agencies such as the State Economic Development Corporations, and PERNAS (the National Corporation), of controlling shares in a number of foreign mining operations in Malaysia.

In order to encourage the participation of Bumiputras in mining, the Federal Government has undertaken to continue to accord them preference in mining rights. However up to the end of the 1970s, direct participation by Bumiputras in this sector has grown only slowly, largely because Bumiputras lack the capital and expertise in mining. In the late 1970s, the Government intervened directly to assist this group by setting up a Mineral Investigation and Drilling Unit (MIDU) with the objective of extending the acreage of scout prospecting (ARB, August 1976).

Several government agencies have instituted mining operations directly on behalf of the Bumiputra community. PERNAS Mining Sendirian Berhad (PERNAS Mining Co. Ltd.) started mining operations in Malacca and Perak in the late 1970s while in late 1979 the Selangor State Development Corporation undertook extensive mining operations in the Kuala Langat area of Selangor. The Pahang Tenggara Development Authority (DARA) and the Anglo-Australian company, Conzinc Riotinto Malaysia Sdn. Berhad, have undertaken a joint exploration programme for base metals in Pahang. The reorganization of a Fund for Exploration of Minerals on Malay reservation land and the formulation of a National Mining Code also paved the way for large-scale mining ventures in the 1980s and 1990s.

In accordance with the Government's policy of extending Bumiputra control over the tin mining industry in the country, three British tin mining operations, Tronoh Mines Malaysia, Ayer Itam Tin Dredging Malaysia and Sungei Besi Mines Malaysia have transferred their shares to PERNAS. Under the agreement, Charter Consolidated Group's interests/shares in the three companies were transferred to a new subsidiary of PERNAS, New Tradewinds Sdn. Bhd. (ARB, Vol. 6, No. 8, 1977: 285). These companies now form part of the Malaysian Mining Corporation.

OTHER MINERAL DEPOSITS

Another mineral of significance in Malaysia is copper. Malaysia has been exporting copper since 1968 but the quantities were small and had been included under 'ores and base metal concentrates' in the export list. In 1968, Malaysia exported 506 tons of copper ore worth M\$116,217 and in 1971 this was more than doubled to 1,091 tons at M\$279,000. However the recent discovery of the Mamut mine¹ in Sabah will increase the importance of copper to the economy, and in 1980 its output was valued at \$13 million. With an estimated 83 million tons of copper ores (with 0.6 per cent copper content) and a potential M\$2 billion export value, the resource is good for 15 years. Copper, therefore, is anticipated to be a substantial income earner for Sabah and Malaysia in the 1980s and 1990s.

Sabah is planning to set up a smelter to process the copper. This will be undertaken jointly by the Sabah Government and the Overseas Mineral Resources Development (OMRD). Refining copper domestically will enable Sabah to get more foreign exchange from its copper.

Bauxite has been mined in Johore and in 1970 over 1 million tonnes were produced. However, production has fluctuated in response to changes in demand, falling to under 400,000 tonnes in 1979. Production in 1980 was about 600,000 tonnes.

ENERGY RESOURCES: PETROLEUM AND NATURAL GAS

Historical Development

The story of oil in the Malaysian eastern state of Sarawak is a long one. From the earliest times the inhabitants had realized that the strange substance which appeared in seepages in certain parts of the territory was valuable (Rowe, 1952: 24). The bituminous residue was used by the natives for caulking their dugouts and in very primitive lamps for lighting their huts (Cochrane, 1924: 308-309). However, it was not until the beginning of the twentieth century that commercial development began. The application of western capital and technology by Sarawak Oilfields Limited made the industry an enterprise of world-wide significance.

The Miri Oilfield in Sarawak was developed by Shell Oilfields

¹ The Mamut mine is being developed at a cost of US\$92 million by the Overseas Mineral Resources Development Sabah Berhad—a joint venture between OMRD-Tokyo and Malaysian partners (51 per cent Japanese and 49 per cent Sabahans).

Company Limited in August 1910. Between 1911 and 1929, the oil produced and exported from Sarawak more than doubled. Peak production of 5.5 million barrels a year was reached in 1929 and then declined with the deterioration of world economic conditions.

After World War II, investment by the oil company increased greatly but production from the Miri field never returned to pre-war levels. After 62 years of production, the oil reserves of the Miri field were finally exhausted in 1973. Over the period 1947 to 1957, the Shell Group of Companies in Sarawak, North Borneo and Brunei spent around \$836 million on exploration and oil operations but had little success in finding new oil.

After several unsuccessful attempts onshore, oil companies moved to explore offshore areas. The country's first offshore rights were granted to the Royal Dutch Shell Group who became the region's first offshore producer when the Lutong field was brought into production. Until the mid-1960s only Shell Sarawak and Shell Sabah held oil concessions in Malaysia. However after the passing of the Continental Shelf Act of 1966, the number of bidders and concessionaires increased. In 1967, 1970 and 1971 three new oil fields were found at Baram, Baronia and Bakau, all in the offshore area of Sarawak. Other oil fields in the Sarawak area are Fairley Baram and Takau. In Sabah, Sabah Shell has two fields—Samarang and Erb West, found in 1974. A further oil field in offshore Sabah is Exxon's Tembungo field also found in 1974. A major gas field was found in 1974 in offshore Sarawak in Shell's 'F' area or Luconia field (see map in Chapter 2).

Though most of the offshore production in the 1970s had come from Sabah and Sarawak, there were also some significant discoveries off the East Coast of Peninsular Malaysia. Petroleum and gas were found off the East Coast in 1973 by Exxon and Conoco. The Exxon oil fields were Pulau, Pulong, Bintong, Jerneh Bekok and Setigi which were under development in 1980. Conoco's discoveries were at Sotong in 1973 and later in Anding, Duyong and Duyong Barat, but Conoco did not develop their finds because they failed to reach an agreement with the Malaysian Government under the Petroleum Development Act of 1974.

Crude Oil and Natural Gas Reserves

With the spate of oil discoveries in 1974, the estimates of commercial reserves of petroleum in Malaysia were revised from 1.5 billion barrels in 1972 to 1.0 billion barrels in 1976 (in 25 fields). In 1980 the estimates were further increased to 1.4 billion barrels. Similarly, estimates of reserves of natural gas were revised from 15 trillion cubic feet in 1976 (OGJ, 1979) to 24 trillion cubic feet in

1979, and to over 30 trillion in 1980. In Peninsular Malaysia, the biggest oil field is Exxon's Tapis field with an estimated reserve of 340 million barrels. In Sabah, the fields of Samarang and South Furious have combined reserves of 125 million barrels. In Sarawak, the biggest field is Baronia with reserves of more than 80 million barrels.

With these reserves and at the 1979 rate of exploitation, Malaysia's oil reserves would be exhausted soon after 1990. Unless new discoveries are made, the country's oil production will begin to decline after reaching a peak in the early 1980s.

Crude Oil Production and Exports

The success in oil exploration and production has raised hopes that Malaysia can be self-sufficient in oil, and in the short term these hopes have been realized. The long-term prospects, however, are less promising.

TABLE 11.3
Actual and Potential Crude Oil Production from
Offshore Fields in Malaysia
(in barrels per day)

Year	Study 1	Study 2	Study 3
1975	90,000		
1976	160,000		
1977	190,000		
1978	225,000	217,000	229,000
1979	250,000	280,000	300,000
1980	275,000	317,000	
1981	289,000		
1982	300,000		
1983	300,000		
1984	300,000		
1985	290,000		
1986	286,000		
1987	225,000		
1988	150,000		
1989	100,000		
1990	62,000		
1991	25,000		
1992	10,000		

Sources: Study 1 is based on Adnan, 1978. Production from 1975 to 1977 are actual figures. From 1978 to 1992 are projected/estimated figures.

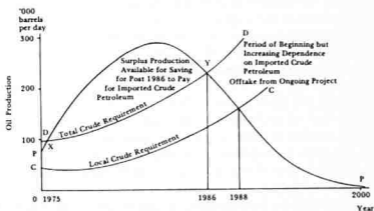
Study 2 is based on Malaysia, 1979b: pp. 138-9.

Study 3 is based on an anonymous report submitted to the 22nd Annual General Meeting of the Malaysian National Committee on World Energy Conference, 21st April 1979 at Bangi, Selangor, Malaysia.

Production of crude oil rose from just under 1,000 barrels a day in 1966 to about 4,000 barrels in 1967, to nearly 100,000 barrels in 1973, and to about 280,000 barrels a day in 1979. On the basis of estimates of reserves and production made in the late 1980s, it was expected that Malaysia's oil would be fully depleted by about the year 1992, though about 70 per cent of the reserves would be depleted about five or six years earlier. This is shown in Table 11.3 and Figure 11.1. Peak production is expected to be reached between 1982 and 1984, after which the decline in production is expected to be cumulative. There is, however, some prospect of limited new discoveries which may shift the production curve to the right, and possibly delay the time of full depletion to about the beginning of the twenty-first century.

As a result of the increased production, exports of crude petroleum rose from 2.8 million tons in 1973 to around 11.2 million tons in 1979. Due to the increases in price, the export value increased from \$200 million to \$3,800 million. Singapore and Japan were the main buyers in 1973, taking about three-quarters of Malaysian crude exports. During the next six years export destinations changed somewhat and in 1979, Japan and the United States were the major buyers, taking 51.5 per cent and 29.3 per cent respectively. Other significant buyers were Singapore (7 per cent) and Thailand (5 per cent).

It is clear that the oil discoveries have produced a bonanza for the Malaysian economy, even though its life is quite limited. However, it is not only Malaysia's exports that have been affected. Domestic consumption of petroleum products has been high, and has increased



Note: The production curve was drawn on the assumption that the oil production reserve was 1.4 billion barrels. There are indications that this figure will change over time because of new discoveries, increase in recovery rate from existing wells, and Government conservation policy.

Figure 11.1: Malaysian Crude Oil Production, 1975 to 2000

rapidly with the increasing prosperity of the economy as a whole. As a result, an increasing proportion of Malaysian oil production has been used directly to meet domestic petroleum needs or indirectly as exports to pay for imports of the heavier crudes required for part of its refinery input.

This is shown diagrammatically in Figure 11.1, where Malaysia's consumption of its own crude is shown projected to 1990 by the line C—C, and its total consumption, including imports, by the line D—D. The difference between C—C and D—D is made up by imports, mainly from the Arabian Gulf.

The line P—P, showing estimated Malaysian production, cuts the line D—D first at X, in 1975, and later at Y in 1986. The period between X and Y, that is from 1975 to 1986, is the period during which (on 1979 estimates) Malaysia was expected to have a net surplus of oil production. After 1986, even if new reserves are discovered, it is expected that Malaysia will probably become a net importer of oil again—though if further price increases had the effect of curbing the rate of increase in domestic petroleum consumption somewhat, this point could be deferred a year or two. If present assessments of the size of possible further oil discoveries prove to be over-pessimistic, this could also prolong the period of surplus production. However, on the best estimates available at the time of writing, present production and consumption trends will lead to a net import situation in the middle to late 1980s.

If costs, instead of quantities, were shown in Figure 11.1, points X and Y would still occur at about 1975 and 1986 respectively, but all the graphs would slope upward very much more steeply. This means that if Malaysia's petroleum consumption continues to grow as projected from the experience of the late 1970s, and especially if world petroleum prices continue to increase, Malaysia could be faced with a more difficult balance of payments problem when it begins to pay for its petroleum imports in products other than oil.

Investments and Costs in Crude Oil Production

The cost of oil production in the South China Sea is much higher than in a number of other countries because the area is not prolific in oil deposits. In addition, water-depths and weather conditions have forced the use of expensive and untried equipment. The total costs incurred by all oil companies in Malaysia for exploration, terminal and production facilities, etc., from 1973 to 1976 inclusive came to about M\$1,396 million (Adnan, 1978: 124).

Production costs per barrel in the Malaysian offshore areas were relatively high by world standards in the mid-1970s. Whilst Saudi Arabia was still, at that time, the cheapest producer in the world,

with costs about US 30 cents a barrel, costs in Malaysian offshore fields were about US\$3.00 to US\$3.50 a barrel, compared with 'New Oil' from Alaska at about US\$6.12 a barrel. However, Malaysian oil is of particularly high quality—being light in specific gravity and containing a low level of sulphur. As a result, the price of Malaysian crude has been higher than that of crudes from Middle Eastern and West Asian producers, although its price has moved more or less in line with general OPEC price levels. Price increases for Malaysian crude have been rapid during the 1970s. For example, in 1972 Malaysian light MIRI crude sold for US\$2.80 a barrel, but this rose to US\$12.60 in 1974, and to nearly US\$15.00 in 1979.

The Development of Petroleum Legislation in Malaysia

Legislative control of the petroleum industry in Malaysia has developed in three stages. The first was a concessionary system which operated in the states of Sabah and Sarawak and in the states of Peninsular Malaysia up to 1965. The second phase standardized the petroleum legislation with the Petroleum Mining Rules of 1966, which changed the concessionary system to one of equal profit-sharing between the companies and the Government. A third phase was introduced in 1974, when the profit-sharing system was replaced by a production-sharing system, under the Petroleum Development Bill. The subsequent Petroleum Development Act established Petroliam Nasional Berhad (PETRONAS) as the state oil company.

In December 1976, after a series of negotiations PETRONAS finally reached agreement with Sarawak Shell Berhad, Sabah Shell Petroleum Co., and Esso Productions Incorporated. The Malaysian production-sharing contract is basically similar to production-sharing contracts in other countries. Under the contract, for every 100 barrels of crude oil produced, the companies get 20 barrels for cost recovery and the Government gets 10 barrels as royalty. This leaves 70 barrels, of which 70 per cent go to the Government, that is 49 barrels, and the oil companies get 30 per cent or 21 barrels. From the 21 barrels so retained by the oil companies, petroleum income tax takes 45 per cent or 9.5 barrels. This leaves the oil companies with 11.5 barrels. When the 20 barrels for cost recovery are added to this, the oil companies get 31.5 barrels. The Government, on the other hand, gets 10 barrels as royalty (of which 5 per cent goes to the State Government), plus 49 as their production share plus 9.5 barrels from tax, which adds up to 68.5 barrels. In addition, duty of 25 per cent *ad valorem* was imposed on crude oil exports in 1980.

Under the agreement, PETRONAS will not take over equity in the existing oil companies. The corporate structure of the oil com-

panies remains unchanged, but they have in effect been reduced from the status of producers to that of contractors. The production-sharing contracts apply only to the exploration and production stage. There is no similar legislation dealing with refining.

Oil Revenue Contributions to the Economy

The strong growth and soaring prices of the petroleum industry, aided by changes in the legislative provisions for the control of the industry, have produced very substantial increases in government revenues. By 1979 government revenues from petroleum were expected to exceed \$2,600 million from all sources, or about 25 per cent of total government revenues in that year.

At the end of the 1970s government revenues from petroleum were derived directly in five main ways, viz.: from royalties, production-sharing arrangements, petroleum income tax, import duties on petrol and heavy fuel oils, and excise duties on locally produced petroleum products.

Royalties in the 1960s and before had all gone to the state governments, because the wells in production had been either onshore, or within the states' three-mile limit. However, under the legislation providing for the extension of the Continental Shelf Act, royalties beyond the three-mile limit accrued to the Federal Government. As offshore oil wells beyond the three-mile limit were brought into production from 1970 onwards, the Federal Government revenue from these royalties increased substantially, rising to \$64 million in 1978, and was expected to exceed \$160 million in 1980. At the same time, royalty revenues accruing to state governments were reduced as the production of onshore and offshore wells declined.

Production-sharing was the largest source of revenue after the production-sharing arrangements were brought into effect in 1976. In 1978 PETRONAS received 48 million barrels in this manner on behalf of the Government, worth about \$684 million on the export market. In 1979, it received 50 million barrels worth \$3.5 billion (before tax) because of the increase in price. Although this did not all accrue as revenue, and although some of the revenue would be deferred until the next financial year, total government revenues from this source were eventually very considerable indeed.

Petroleum income tax was another substantial revenue source during the late 1970s, amounting to \$828 million in 1979, about five times more than the figure for royalties.

Import duties on petroleum products have been a declining source of revenue during the 1970s, falling from \$74 million in 1970 to \$60.7 million in 1978. This has been largely due to the replacement of imports by locally produced petrol and oils, although there have

also been some reductions in duties to keep down domestic prices of kerosene and diesel fuel. This has, however, been more than offset by the rapid increase in excise duties on the locally refined and processed petroleum products, which produced \$406.7 million in Federal revenues in 1979, compared with \$118 million in 1970 (Adnan, 1978: 401).

During most of the 1980s, with production expected to increase until possibly 1983, and petroleum prices expected to increase further during the decade, Federal Government revenues from the petroleum industry should continue to increase. In the 1990s, however, they may decline quite sharply with Malaysian oil production. Increasing imports during the 1990s will cause revenues from import duties to increase if present rates of duty are maintained, but this will not nearly offset the loss in production-sharing revenues.

Crude Oil Marketing and Future Prospects

At the end of the 1970s there were four companies marketing crude oil produced in Malaysia. They were Sarawak Shell Berhad (SSB), Sabah Shell Petroleum Company (SSPC), Esso Malaysia Incorporated and PETRONAS. Of these SSB is the longest established having been the sole marketer from 1911 till 1975. PETRONAS came into the scene with the passing of the Petroleum Development Act in 1974. SSPC and EMI began production and marketing in 1975.

The marketing companies sell in two ways: longer term or contractual sales, and 'spot' sales. SSB sells to affiliates overseas, especially in East Asia and the Pacific region, and within Malaysia to the Shell refinery at Port Dickson. About 75 per cent of SSB output is marketed in this way, whilst the remainder is used in its refinery in Sarawak. Esso sells to affiliates outside the country, mainly in Singapore and Japan, but not to their refinery at Port Dickson in Malaysia. SSPC has long-term contractual arrangements with its overseas affiliates and with the Shell refinery at Port Dickson.

'Spot' sales are made by the oil companies only when they have excess crude at their disposal. Both Sarawak Shell and Esso do make 'spot' sales from time to time.

The involvement of PETRONAS in crude oil marketing is recent. In early 1970 the Malaysian Government began planning to prepare for an active involvement in the international oil business. Sometime in 1971 it asked SSB (then the only crude oil producer) to pay some of the royalties in kind. The objective was for the Government, through its agency, to gain experience in crude oil marketing. This continued till the establishment of PETRONAS in late 1974.

Since then PETRONAS has been active in the crude oil trade and has been determining its own price, mainly by relating to the prices prevailing for crudes of similar quality in the world market.

The early experience of PETRONAS was in 'spot' sales and in selling 'buy-back oil'¹ to oil companies. In the late 1970s it diversified into long-term contractual arrangements besides 'spot' sales. Since June 1976, most PETRONAS crude received from the production-sharing arrangements was sold to the Philippines National Oil Company on a government to government basis. The agreement was on a year to year basis and met about 5 per cent of the Philippines crude oil needs. PETRONAS also supplies crude on a yearly contractual basis to several oil companies in Japan and the US West Coast.

Between 1977 and 1985 oil will remain the dominant fuel in the Pacific Basin and the region will continue to consume about three times more oil than it produces. At the end of the 1970s, total production was around 2 million barrels a day, mostly from Indonesia, with smaller volumes from China, Australia, Brunei and Malaysia.

Although at the end of the 1970s Malaysia was a net exporter of oil, it was still necessary for Malaysia to import crude oil from the Middle East. There were two reasons for this:

1. Malaysian crude is light and has a low sulphur content, which commands a considerable premium on world markets. Thus, apart from its own limited needs for this premium quality crude, it pays to export most of it and to import the lower quality crudes adequate for its needs, because the price differential is sufficient to enable it to import larger quantities than it exports.

2. No one type of crude will provide a full range of finished products in the quantities and proportions that the market requires. The Malaysian market is served by processing blends of different crude oils. Pure Malaysian crude would produce light products such as petrol and naphtha in excessive quantities for domestic requirements and insufficient fuel oils. Consequently Malaysia's refineries have been designed to use considerable proportions of heavy Middle Eastern crudes, from which Malaysia's high consumption of fuel oil products can economically be met.

This characteristic of Malaysian crude exports and imports is likely to continue throughout the 1980s and into the 1990s, until

¹ 'buy-back oil': A proportion of all of the crude oil production was passed to the Government. This was termed participation crude oil. Such oil could be sold by the government on the open market or sold under special arrangements to the producing company. When it was sold to the company it was termed buy-back crude oil.

Malaysian crude production drops to the level required to meet the needs of its own refineries for the special light quality oil. Until this point is reached, Malaysian needs for imports will increase, but are likely to be mainly for heavy crudes. In other words, unless technology or demand alters unexpectedly, Malaysia can expect to be self-sufficient in its premium quality light crudes for a considerable time after it has become an overall net importer of crude oil.

Energy from Gas

Malaysia has been fortunate in its timely discovery and exploitation of crude petroleum resources, from which it has benefited enormously in the late 1970s. However its resources of natural gas are likely to be the more important in the long term.

As it enters the 1980s, Malaysia already has considerable capacity for energy from petroleum gases. There are two types: liquid petroleum gas (LPG), which is mainly derived as a by-product in the process of refining crude petroleum, and natural gas, which is obtained direct from natural underground reservoirs.

LPG is widely used as a fuel in Malaysia both for domestic and industrial purposes. In household use it is an alternative to charcoal, firewood and kerosene, and in commercial use it is an alternative to fuel oil and diesel. With better availability and possibly a relatively lower price, LPG may be expected to become more widely used in the 1980s.

However, natural gas is a different proposition. Malaysia has many known gas fields in its offshore areas, and some are very large. One of these is the Central Luconia field offshore from Sarawak. There is another large field offshore from Trengganu, and some very promising areas remain to be explored elsewhere. Whilst Malaysia's reserves of crude oil may begin to run out quite soon, as mentioned earlier, there is reason to believe that Malaysia's natural gas reserves may be sufficient to meet her energy needs, and provide a surplus for export, well into the twenty-first century.

The exploitation of natural gas requires different technology and capital investment from that used for the exploitation of crude oil resources. As with crude oil, it is obtained by drilling wells to tap the underground reservoirs, but from there on it raises different problems, due to the particular characteristics of the gas itself. Unlike LPG it is not easy to liquefy or transport, and its processing requires heavy investment in plant quite different from that used for processing crude. There are four main ways of bringing it to use:

1. The gas can be piped directly from the gas field to the users. This involves heavy capital outlay on the reticulation system, par-

ticularly if the distances are great, and if the users are scattered and small scale.

2. The gas can be liquefied by cooling it to a very low temperature under high pressure, to become Liquefied Natural Gas (LNG). This is practicable under present technology, only with very large-scale operation, when transport overseas in specially designed ships becomes an economic proposition. For this purpose the gas supplies must be very large to justify the heavy capital expenditure on plant and shipping with large-scale throughput over a long period of years. PETRONAS (with a 65 per cent equity interest), in conjunction with SHELL and MITSUBISHI, is building a major LNG plant and shipping facility at Bintulu in Sarawak for this purpose, and exports of LNG from there should start in the mid-1980s.

3. The gas can be processed to produce light petroleum fuels, mainly petrol and a useful proportion of LPG. Petrol production was not yet an economic proposition in the 1970s, but this could change during the 1980s, particularly if alternative petroleum fuels continue to become scarcer and more expensive. The production of nitrogen fertilizer, however, is already an economic proposition, and a plant for this purpose is to be built at Bintulu in conjunction with the LNG plant there.

4. The gas can be converted into electric power in large power stations and distributed to users by a normal electric power reticulation system. This appears to be a possible use for gas from the large offshore Trengganu fields, and there has been discussion of the possibility of a 450 megawatt gas-powered thermal station in Trengganu in this connection.

OTHER ENERGY SOURCES

Many other types of energy have been and may yet be used in Malaysia for various purposes. Wood, charcoal and animal power have been used for centuries, and will continue to have their place. But for large-scale use, the main possibilities other than petroleum crude or gas appear to be uranium, hydroelectric power and solar power.

Uranium is becoming a more widespread source of power in the world, and in the late 1970s there were suggestions that Malaysia may have its own sources of uranium that could, if necessary, be developed. However, in view of the large alternative source of energy available from the natural gas fields, that development may not be necessary in the foreseeable future.

Hydroelectric power has been of some considerable importance in Peninsular Malaysia for many decades, and there remains considerable additional potential for development there, and even more

so in Sabah and Sarawak. The development of this potential will help prolong the life of Malaysia's other energy sources, although the hydroelectric power may require supplementation for efficient utilization, due to the seasonal variation in Malaysia's rainfall.

Solar energy was as yet little developed in Malaysia at the end of the 1970s, though the increasing cost of other forms of energy is making it more attractive for some uses. As a supplementary source of domestic hot water, for example, it may already be economical in some areas.

ENERGY POLICY

At the end of the 1970s, Malaysia was primarily dependent upon petroleum for its energy supplies, and this is likely to continue into the 1980s and 1990s, although the types of petroleum product used are likely to change in relative importance. Natural gas, and petroleum products derived from it, are likely to become more important in the 1990s. For this reason, government energy policies for the 1980s and 1990s are still likely to be centred largely on petroleum in one form or another. Other forms of large-scale energy supply, such as hydroelectric schemes, whilst certainly important, do not appear to have the capacity to surpass oil and gas as Malaysia's main source of energy in the present century.

The Petroleum Development Act, passed in October 1974, gave the Government wide powers over the petroleum industry in Malaysia. It provided for the production-sharing arrangements discussed above, but it also made provision for conservation and for control over the rate of depletion of oil resources.

There is good reason for care and efficiency in the use of Malaysian oil resources, for they are limited (particularly the supplies of crude oil), and will be a dwindling, and an increasingly high-priced, asset. This care is required both with the rate of domestic consumption of petroleum products, and with the rate of production for export. Every barrel of locally produced oil consumed or exported in the early 1980s means at least 1 barrel that will have to be imported in the late 1980s or in the 1990s, when oil prices in real terms may be higher than in the early 1980s. For this reason, if one were to consider oil price factors alone, it would seem to be in Malaysia's interest to have its oil import deficit now, and to conserve its own production until at least the 1990s. The Conservation Policy would pay for itself since what would be saved would probably be that amount of petroleum imports at higher real prices. So the longer Malaysia keeps its oil in the ground, while prices continue to rise, the more it is likely to gain from its oil production and trade.

However that type of analysis is valid only so long as other factors are not taken into account. Other important factors that may influence the final balance of cost-benefit analysis include the following:

1. Alternative sources of energy may be discovered that will reduce the demand for petroleum. In that case, the price increases may moderate, or even reverse, in which case the argument for conservation would be invalidated.

2. The revenues from oil exports, and the foreign exchange savings from petroleum import replacement, are making possible very heavy investment in Malaysia's economic development during the 1980s. If well used, this will increase Malaysia's productive capacity in the 1980s and 1990s, in fields that are more permanent and employ more labour.

3. There may be advantages in early conversion of a substantial proportion of Malaysia's energy consumption from products of heavy crude, such as diesel fuel, to natural gas and products derived from it. If this can be achieved, it may become possible for Malaysia to reduce its future need for crude oil in the late 1980s and in the 1990s, whilst retaining the advantage of large investible surpluses from oil exports in the 1980s.

4. Reduction of crude oil output in the 1980s would have to be very substantial to make much difference in the 1990s, and may both increase costs of production, and decrease the incentives for further exploration.

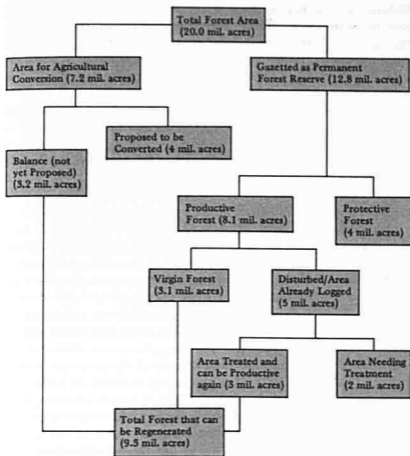
One of the major issues for the 1980s will be the resolution of this conflict between the reasons for aggressive versus conservative policies in the exploitation of Malaysia's oil resources. It will remain a live issue at least throughout the 1980s. Much will depend upon the results of further exploration and testing of the resources of oil and gas, but there will also be some international political questions to be resolved that will affect the issue, and these will become increasingly important as exploration moves further out into the South China Sea.

FOREST RESOURCES

Timber Resources and Reserves

In 1977, of 20 million acres of forested land in Peninsular Malaysia, 7.2 million were classified for agricultural conversion and 12.8 million were gazetted as permanent forest reserves.

Of the latter, 4 million acres were protective forest and only 8.1 million acres were considered to be productive forest reserves of



Source: Mei, 1977: 89.

Figure 11.2: Forest Resources in Peninsular Malaysia

which 5 million acres, or 61.7 per cent, had already been logged. This left only 3.1 million acres remaining unexploited in 1977.

Thus in that year Peninsular Malaysia had available for logging 3.1 million acres of virgin productive forest, plus 3 million acres of exploited forest that had been replanted or otherwise prepared for re-growth and could be productive again, plus 3.2 million acres of the land earmarked for agricultural conversion but not yet logged. This gave a total of 9.3 million of exploitable forest (see Figure 11.2).

By 1980 the rate of logging had reached 2,500 acres per day or about 900,000 acres a year, and at this rate the forest will soon be exhausted.

As a result, during the 1980s the supply of logs in Peninsular

Malaysia will come from areas being cleared for agricultural conversion and from the small remaining productive forest reserves. After that, in the 1990s the areas being cleared for agricultural conversion will be a rapidly diminishing source of timber, and supply will become dependent upon the regeneration of forest in the productive forest reserves (Mei, 1977: 85).

The really large reserves of timber in Malaysia are in Sabah and Sarawak. In Sabah there is a total forest area of something over 14 million acres, and in Sarawak something over 22 million acres, of which about 18 million are estimated to be commercially exploitable.

Timber Production and Use

Most Malaysian timber exports have been in the form of sawlogs. The most popular Malaysian species are Red Meranti, White Meranti, Durian Hutan, Nyatoh, Sepetir, all varieties of Keruing, Merbau, Damar Minyak and Jelutong. Gross export earnings from sawlogs were \$1,631 million in 1978, 80 per cent of which came from Sabah, with Sarawak and Peninsular Malaysia producing 19 per cent and 1 per cent respectively. The small proportion coming from Peninsular Malaysia was due to conservation measures and high domestic consumption. The export of three species of logs had been banned in 1978 because a severe shortage of timber for domestic purposes had developed. This ban was in addition to restrictions previously imposed on the export of 11 other species in 1972. Further, the Federal Government continued to restrict the export of logs more than 16 inches in diameter from Peninsular Malaysia after September 1978, and in February 1979 it banned the export of another two species. In the late 1970s the production of unsawn timber in Sarawak also declined because the State Government decided to slow down the depletion of its forest resources.

Japan led the field of importers, taking about 8.2 million tonnes or three-quarters of all sawlog exports in 1974 and 11.0 million tonnes in 1978; after Japan came Taiwan and Korea taking 15 per cent and 10 per cent respectively.

Besides sawlogs, Malaysia also exports sawn and processed timber including plywood. In the 1970s the sawn timber industry, like the sawlogs industry, enjoyed good prices. In 1978, 10.2 million cubic metres of sawn timber valued at \$879.3 million were exported. Peninsular Malaysia produced most of this exporting 9.3 million cubic metres worth \$794.4 million.

In 1978, Singapore became Malaysia's largest importer of sawn timber, taking about 33.1 per cent. The European Economic Community took 28 per cent and the Middle East 10.6 per cent. There

is much less processing of timber in Sarawak and Sabah. Output of sawn timber from the 566 sawmills in Peninsular Malaysia comprised 95 per cent of total production, Sabah with 214 sawmills accounted for 4.8 per cent and Sarawak with 120 sawmills accounted for the remainder.

Special Problems of the Timber Industry

As with tin and petroleum, depletion of resources is also a problem with the timber industry. The depletion of the forests in Peninsular Malaysia has already been described, but even in Sabah continuation of the logging rates of the late 1970s would lead to relatively rapid depletion of the vast resources there in 20 to 30 years. Further conservation measures are clearly required. The methods of conservation, and the rate of logging to be permitted, will be issues of considerable importance during the 1980s and 1990s.

Being heavily dependent upon exports, the timber industry has been particularly vulnerable to changes in economic conditions abroad. Although domestic consumption has been increasing, this dependence, especially in unprocessed timber, will continue during the 1980s. Moreover log exports have been restricted in their markets, mainly to Japan, Taiwan, South Korea and Hong Kong, which took 90 per cent in the late 1970s. This narrowness of the market has given the buyers considerable monopsonistic control, which has been used to keep the price paid for log exports artificially low (ARB, Vol. 4, No. 8, 1975: 52).

Sawn timber and plywood exported from Sabah or Sarawak for the markets of Europe, the Middle East and the United States are usually transhipped at Singapore or Port Klang, as direct sailings from Sabah or Sarawak ports are rare. Freight cost from Sabah or Singapore or Port Klang plus transshipment charges account for a substantial proportion of the total freight charges (ARB, Vol. 6, No. 8, 1977: 284). This is a brake on development of timber processing in Sabah and Sarawak.

In 1974 the timber producers, Malaysia, Indonesia and the Philippines, collaborated to form a cartel in the form of the South-East Asia Lumber Producers Association (SEALPA). The Association's main function has been to organize timber supplies on a scaled or programmed reduction to secure better prices. They agreed to allocate export quotas based on 1975 exports as follows: Indonesia 46.5 per cent, Malaysia 28.2 per cent and Philippines 21.9 per cent.

In 1975, the member countries of the Association of South-east Asian Nations (ASEAN) agreed to extend the scope of regional co-operation to cover the timber industry. A committee of ASEAN

forestry experts was formed to draft a blueprint for future regional cooperation in the field of forestry. As a result a study has been made to examine end-uses of timber produced by ASEAN member countries in the consuming countries (ARB, Vol. 6, No. 2, 1976).

CONCLUSION

The future of the Malaysian tin industry is dependent upon world tin prices being sufficiently high to support the mining of deeper and more inaccessible tin ores as the present near-surface reserves are worked out. World demand has grown only slowly in the 1960s and 1970s, partly because of the development of substitutes for the main end-uses of tin metal. However there are two factors that will work in favour of tin during the 1980s and perhaps in the 1990s; first, the increasing economic development of some of the developing countries is making them greater users of tin; secondly, some of the tin substitutes developed in the 1960s and 1970s, such as aluminium, are sensitive to energy prices and becoming more expensive. On these bases World Bank projections dated 1980 suggest that the tin price will increase moderately in real terms during the 1980s. If this eventuates, and with a continuance of the Malaysian Government's policy of moderating the high level of internal taxation on tin mining, Malaysia's large reserves at greater depth and in less accessible ores should assure a valuable role for the Malaysian industry during the 1980s and 1990s. To this end, the level of taxation and the cost of inputs for tin mining will continue to be issues of considerable importance until the end of the century.

With petroleum, the continuance of prospecting will be of great importance during the 1980s at least, and this in turn is bound to raise questions and problems of international boundaries and cooperation, particularly in the South China Sea. In this, the framework provided by ASEAN will be of importance, but other non-ASEAN nations, and Vietnam in particular, may be involved.

As already mentioned, the conservation of Malaysian crude oil reserves will be an issue of very great importance throughout the 1980s, with the conservative 'go slow' policy set up against the more courageous 'fast development' policy, the latter counting on the use of the oil revenues to effect rapid expansion of other more permanent and more labour-using production.

However all these questions will in turn be influenced strongly by the effective development and utilization of Malaysia's great natural gas reserves, and it seems that there is much to be said for the deliberate acceleration of Malaysian domestic and industrial

energy conversion to natural gas wherever this is economically possible.

The Malaysian timber industry has already been moving into greater concentration on processed timber, mainly on the Peninsula, and the advantages of this development in the creation of local employment and incomes are clear. One issue will be how to extend this effectively to Sabah and Sarawak, where the extra costs of double handling for export shipment are a disincentive to such processing. The other, and the major, issue for the timber industry in the 1980s and 1990s will be how to develop effective regulation for its conservation and regeneration.

APPENDIX A

Case: Distribution of Gross Income of \$1,240 million on sale of 991,600 piculs tin metal at an assumed metal price of \$1,250 per picul.

Costs:

Operating	\$638 million
Tribute	\$ 49 million
	<u>\$687 million</u>

Share of Government and Miners: \$553 million

Government's share:

Export duty	\$200 million
Surcharge	\$113 million
Income and development tax	\$100 million
Tin profits tax	\$ 14 million
	<u>\$435 million or 78.66 per cent</u>

Miners share:	\$553-435	
	= \$118	or 21.34 per cent

In the above schedule, the Government would collect \$435 million or 78.7 per cent of mining profits by way of direct taxes, and the miners would receive \$118 million or 21.3 per cent. Of the \$435 million receivable by Government, \$313 million comes from export duty and export surcharge which are paid at source. Income tax, development tax and tin profits tax take up \$122 million. As tin price improves, the combined export duty and surcharge on gross revenue increases on a sharp progressive scale (price of Straits tin in Penang in mid-Dec. 1979: \$2,171 per picul).

12 Manufacturing Industries

This chapter attempts to evaluate the performance and prospects of the manufacturing industry in Malaysia, within the framework of social, political and economic facts that, together with government policy, determine the incentives and constraints that affect industry. It will first trace the growth of manufacturing since Independence. But industrial growth involves many questions such as what industries are developing, where, to whom the benefits will accrue, and what will be the costs to society. It is therefore necessary to examine closely the kind of industrialization and the structural content involved in the change. Finally, the problems and prospects for industrial development in the 1980s and 1990s will be discussed.

GROWTH OF MANUFACTURES

The two decades after Independence witnessed an acceleration of industrial growth which has made manufacturing industry the most dynamic and fastest growing sector in Malaysia. On average, the rate of growth of real output in manufacturing over the period was in the region of 11 to 12 per cent per annum, about twice the growth rate of real GDP. As a result, the share of manufacturing in GDP rose from barely 8 per cent in 1957 to an estimated 21 per cent in 1980. This growth was initially based on the processing and packing of primary products, mainly natural rubber, but over the years rapid shifts in the structure of manufacturing industries have been evident.

The period 1957-80 can conveniently be divided into two main phases which roughly correspond to the distinct, though overlapping, stages in the process of economic and political transformation in Malaysia: the phases of 'import-substitution' policy (1957-68) and 'export-expansion' policy (after 1968).

In Malaysia, just as in many other LDCs, the complex system of incentives and checks for manufacturing growth have not appeared

simply by design. Rather they have evolved piecemeal out of the determined efforts of the national authorities to accelerate the pace of economic development under the varying constraints of an imperfect institutional framework.

The first beginnings of an industrial development policy emerged towards the end of the era of British rule and later took practical form in the Pioneer Industries Ordinance 1958. By this time certain historical and economic links had already been established between Britain and Malaysia. These links, coupled with the prevailing external and internal economic conditions, tended to shape Malaysia's early industrial policies and the consequent pattern of development. As in many other LDCs, after Independence, the open system of the colonial period in Malaysia, under which the traditional primary goods (rubber and tin in particular) were exported to the developed countries in exchange for manufactures, could no longer be accepted as an effective path to stability and sustainable economic growth. The volatility of commodity export prices and revenues, plus increasing unemployment and the high rate of population growth, made diversification towards modern manufacturing a necessity (I.B.R.D., 1955; Malaya, 1957). During this early period, growth was the guiding principle in determining industrial investment priorities. A distinguishing feature of government policy at that time was the philosophy of welcoming virtually any industrial activity, and a set of policy goals which emphasized the Government's passive role in its efforts to promote industrialization within the private sector. The Government saw its function as being limited to providing information about industrial conditions, and the provision of certain services, infrastructural improvements, industrial estates and tax concessions. Tariff protection was however very modest.

The liberal policy towards foreign investment played an important part in developing an import-substitution bias in early industrial development. The new industrial enterprises were to be encouraged by the expectation of profits through the exclusion of foreign competition, mainly by 'natural protection', but also supplemented by the allocation of credit and certain essential inputs at preferential rates, by exemption from income taxes and duties, and by provision for remission of profits. On the other hand, traditional export activity was discouraged by unfavourable domestic terms of trade *vis-à-vis* the new industrial sector, especially in competition for scarce factors such as capital and skilled labour.

The need to start with an import-substitution policy was conditioned by the internal factor supply as well as by relative factor costs abroad. The internal situation in the late 1950s and early

1960s provided a relatively high cost basis for manufacturing enterprise, due to: 1. a lack of experience in establishment and management of industrial enterprises: given this situation, entrepreneurs preferred to concentrate on the production of light industrial goods which could be manufactured on a small-scale basis with limited technology and capital, and where economies of scale were not decisive. 2. An inexperienced and unskilled labour force whose levels of education and even literacy were relatively low, and whose use in disciplined regular factory type production had generally been unproductive: since the industrial work force was consequently less efficient, the industries could not easily survive international competition and required protection and subsidies to begin with. 3. An infrastructure developed for primary industry was inappropriate particularly for large-scale modern manufacturing. In this relatively high cost situation, import substitution was seen to have advantages deriving from freight and handling costs, and from the ability of the Government to intervene in its favour through tariffs and other quantitative controls.

World market conditions at that time were more to the advantage of certain other developing countries, such as Taiwan, Korea and Hong Kong, which already had a skilled, experienced and disciplined labour force. Their labour costs were still very low and enabled them to operate very competitively in the world markets. In Malaysia, however, the advantage still lay with primary industry, whilst the earlier colonial policies which had discouraged the development of manufacturing before Independence were still exerting some influence.

The import substitution strategy made some progress in the first half of the 1960s. But because of the limited domestic market, the momentum could not be sustained for long, and industrialization began to slow down at the end of the decade. The average growth rate of manufacturing was over 11 per cent per annum during the first half of the 1960s but declined to roughly 10 per cent in the second half, although on a larger base. However, a late start in its industrialization programme enabled Malaysia to learn from the experience of other countries which had embarked on the import substitution strategy much earlier. This in turn enabled Malaysia consciously to prepare its policy incentives towards export promotion and industrial efficiency before the frontiers of import substitution were actually reached. The switch in policy was made easier, moreover, as the bias in favour of import substitution and against exports had been only modest. This may be attributed to a large extent to low tariff protection and exceptional price stability during that early period, which in turn gave the Malaysian currency a bias

towards undervaluation (Kasper, 1974: 69). Hence it is little wonder that import substitution and export promotion of manufactures ceased to be some sort of a dichotomy but became more or less a continuing sequence in development.

Admittedly, the import-substitution strategy had made some contribution to the development process of the country. It helped to diversify the economy, producing at least some move into manufacturing, and reduced somewhat the excessive dependence on imported consumer goods. It utilized some domestic natural resources, created some employment opportunities, and contributed to economic growth. Nevertheless, since most import-substituting industries were based on imported raw materials or imported intermediate products, the end result was a low ratio of value added to gross output and poor linkage effects with the rest of the economy. The policy, whether intentionally or not, encouraged the establishment of industrial enterprises involving substantial capital investment, and employment growth lagged far behind output growth. In certain cases, the policies have also attracted suboptimal industries that would never become viable without protection. While imports of consumer goods did decline in the 1960s, not only in relative but also absolute terms, the imports of investment and intermediate goods increased somewhat more than proportionately. For example, the import share of consumption goods (food, beverages, tobacco and consumer durables) decreased from 47 per cent in 1961 to 27 per cent in 1970, whereas the share of investment goods (machinery, transport equipment, metal products and others) increased from 17 per cent to 27 per cent, and intermediate goods for manufacturing from 8 per cent to 21 per cent in the corresponding years.

The liberal policies towards foreign investors nevertheless continued into the second phase (after 1968), but with a difference. There was a growing awareness that these policies were incompatible in some respects with targets set under the New Economic Policy (NEP). It was mostly during this phase that domestic political considerations finally overcame the *laissez-faire* philosophy of leaving industrial development wholly to the private sector.

During this phase, there evolved a new set of economic and political attitudes, giving expression to what amounted to a surge of economic nationalism. Official policies started cautiously to discourage indiscriminate foreign investment and to favour joint industrial ventures, and local participation in enterprises geared to the NEP objectives. But the shortage of local management expertise, capital and technological know-how, together with the need to expand the economic pie, meant that the Malaysian Government felt it still had to depend upon foreign participation, and also to a limited

extent, on the development of public enterprises in the manufacturing sector.

The big increase in public development expenditure on manufacturing (including industrial sites, free trade areas, development finance, and direct investment) from \$141 million, or 3.3 per cent of total development expenditure in the FMP period, to \$805 million or 8.2 per cent in the SMP period, was evidence of the Government's firm intention to revitalize the slackening pace of industrial growth.

During this second phase, more liberal industrial legislation was enacted, commencing with the Investment Incentives Act of 1968, which superseded the 1958 Ordinance. Tariff protection was increased for infant industries, and tax concessions were offered to encourage labour intensity (i.e. jobs created), the use of domestic raw materials, location in accordance with government priorities, and increase in efficiency. Special attention was also given to export promotion by tariff subsidy and frequent overseas campaigns to attract foreign investment for the establishment of selected industries. Inducements offered included industrial estates, free trade zones and lately the opening up of a Malaysian Export Trade Centre in Kuala Lumpur to introduce products to foreign importers.

These policy changes enabled Malaysia to take good advantage of a number of favourable circumstances in the external world conditions and to attract much of the foreign capital, management and know-how that it needed to expand its manufacturing industry. The share of manufactures in gross exports was virtually stable at around 8 to 12 per cent during the 1960s, but this increased to around 20 per cent by the end of the 1970s (Table 12.3). The rate of growth of manufacturing during the 1970s averaged 12 per cent per annum, which was higher than in the previous decade, despite the larger base. This growth rate was impressive compared with that of most other industrializing countries (Hughes, 1978), especially considering the world economic situation then prevailing.

It can be concluded that the set of policy instruments instituted by the Government in the 1960s and 1970s had facilitated the expansion of private investment and had stimulated satisfyingly rapid industrial growth. Of course, many factors other than Malaysian government policies also contributed to this growth. Malaysia maintained its economic and political stability (except for a short interruption brought about by a backlash of racial clashes in 1969); the infrastructure and essential services for industrial operations continued to be developed; human and physical capital resources for industrialization were becoming more readily available. A pool of local entrepreneurs, managers and technicians was being established.

Above all, the cost of labour had been kept at a competitive level. Wages, which seemed to be rising steadily at nominal if not real values in the 1970s, were still very competitive with other industrial centres around the world. Industrial wages in Malaysia are determined by individual contracts and collective agreements, and the rate for unskilled workers in the 1970s varied from \$3 to \$7 per day (and for skilled workers usually over \$8 per day), depending on the industry, level of skills and experience, location, etc.

One factor which has been important in keeping wages relatively low has been the abundance of labour. But it is by no means clear how long this can continue. Indeed many of the signs of transition from a state of declining or stable wages to rising real wages in the industrial sector were beginning to be noticeable in the Malaysian economy during the late 1970s. Labour shortages had developed in various parts of the agricultural sector, some rural wage rates had risen sharply, and the relative importance of self-subsistent production in many village areas had fallen. Concomitantly, whilst the general level of urban wages in real terms had not yet increased significantly, high rates of labour turnover at the lowest paid levels, and unfilled vacancies in specific skilled or semi-skilled occupations had become increasingly obvious, despite the continuation of quite high levels of unemployment amongst urban populations. A continuation of these trends, together with some strengthening of the trade union movement and an increase in effective collective bargaining, must be expected during the 1980s and 1990s so long as the process of industrial growth continues. These changes in turn must be expected to lead to an increase in the industrial wage, bringing upward pressure on the cost structure and some reduction in Malaysia's competitive position *vis-à-vis* other new industrializing countries such as Thailand, the Philippines and possibly Indonesia.

In this context, the relatively slow development of collective bargaining amongst the Malaysian industrial labour force is of considerable interest. In 1970, a little over 10 per cent of the manufacturing labour force in Malaysia were reported to be members of trade unions, and this had increased only slightly to about 12 per cent by 1978. Several factors may have been responsible for this, among them (1) the large number of small establishments and the widespread use of family and part-time workers; (2) the large proportion of young workers, especially young female workers; (3) government discouragement of unionism, partly to maintain low costs of labour and to minimize labour unrest; and (4) there is among Chinese workers in particular a marked aversion to confrontation and a strong streak of individualism (Hsia and Chau, 1978: 13). Furthermore, owing to the relatively stable economic

condition, the urban workers may not have felt any urgent need for collective action to maintain their jobs or to improve their earnings. Finally, government legislation intervention in the Malaysian labour market has been minimal. Up to the end of the 1970s, there was no minimum wage legislation applicable to the manufacturing and processing industries.

Despite some successes, many problems that became the targets of the NEP had not yet been solved by the end of the 1970s and in some cases had worsened. In order to understand how the manufacturing sector had affected the results an examination of the structural changes that had taken place will be made.

INDUSTRIAL STRUCTURE AND ITS TRANSFORMATION

In this section we shall analyse first, the changes in the composition of output and employment by types of manufacturing industry, then by the size-distribution of manufacturing establishments, and finally the patterns of regional location, ownership and employment. Attempts will be made to explain the structural changes described.

Changes in the Composition of Industrial Output and Employment

The following are important features of industrial-mix and structural change in Malaysian manufacturing.

First, Malaysia's manufacturing sector has been in the process of rapid structural change from basic agro-based consumer and intermediate goods industries to other intermediate and capital goods, somewhat though not exactly in conformity with the broad growth patterns of industrialization (Chenery, 1960; Kuznets, 1971; Chenery and Syrquin, 1975). These shifts may be explained by the supply and demand factors. On the supply side, increased knowledge, skills and experience, together with capital inflow and local capital accumulation, have enabled the gradual introduction of new industries in which the production technology is more complex. On the demand side, the early growth of consumer goods industries has expanded domestic demand for intermediate and capital goods. The slower growth of consumer goods in the 1970s may also be due in part to the slow and uncertain growth of demand from the non-industrial sector.

Second, Malaysia's manufacturing is shifting along a narrow base in both the structure of domestic industry and its exports. The share in total production is high for agricultural product processing

TABLE 12.1A

Peninsular Malaysia: Value Added by Branches of Manufacturing Industry, 1963, 1968, and 1973

Industry	1963		1968		1973	
	\$'000	%	\$'000	%	\$'000	%
Food (except animal feeds)	66,500	14.7	143,287	16.4	347,808	14.9
Beverages	13,053	3.1	36,263	4.1	61,206	2.6
Tobacco products	28,257	6.7	57,106	6.5	130,418	5.6
Wearing apparel	3,960	0.9	7,674	0.9	35,485	1.5
Chemical products (except industrial chemicals, paints & varnishes)	29,358	7.0	37,731	4.3	96,514	4.1
Furniture & fittings	7,974	1.9	10,319	1.2	19,282	0.8
Printing & publishing	29,293	7.0	52,558	6.0	114,551	4.9
Textiles	4,041	1.0	19,533	2.2	104,221	4.5
Wood & cork products	49,151	11.7	94,437	10.8	304,242	13.1
Leather & leather products	665	0.2	994	0.1	3,063	0.1
Paper & paper products	3,066	0.7	6,219	0.7	17,971	0.8
Industrial chemicals, paints & varnishes)	12,647	3.0	31,522	3.6	78,583	3.4
Rubber products ¹	66,726	15.9	118,934	13.6	222,451	9.6
Non-metallic minerals	27,493	6.5	61,760	7.1	122,272	5.3
Metal products	22,736	5.4	38,987	4.5	114,419	4.9
Animal feeds	4,647	1.1	8,178	0.9	16,604	0.7
Plastic products	1,851	0.4	8,369	1.0	44,488	1.9
Basic metals	3,589	0.9	21,188	2.4	85,891	3.7
Non-electrical machinery	14,702	3.5	25,158	2.9	87,242	3.7
Electrical machinery	4,702	1.1	20,781	2.4	188,527	8.1
Transport equipment	5,973	1.4	18,724	2.1	62,201	2.7
Others	19,930	4.8	54,129	6.2	69,490	3.0
Total	420,358	100.0	873,851	100.0	2,326,929	100.0

Source: Malaysia, 1963a, 1968, 1973.

¹Inclusive of rubber remilling, rubber smokehouses and latex processing.

operations. Tables 12.1(A) and 12.1(B) show a concentration in the production of food, wood and rubber products. In 1963, together they accounted for 42 per cent of the total value added and 49 per cent of the employment in manufacturing. By 1973 the shares of these types of manufacturing had declined to 38 and 36 per cent respectively. The figures indicate that in the early years these industries had been very labour-intensive but the labour-intensity had relative importance, their aggregate output still grew steadily and occupied a substantial proportion of total manufactures up to the end of the 1970s.

TABLE 12.1B

Peninsular Malaysia: Employment by Branches of Manufacturing Industry, 1963, 1968 and 1973

Industry	1963		1968		1973	
	Numbers	%	Numbers	%	Numbers	%
Food (except animal feeds)	15,266	17.8	20,387	15.7	35,597	12.8
Beverages	2,255	2.6	2,358	1.8	3,070	1.1
Tobacco products	4,076	4.7	4,245	3.3	8,581	1.3
Wearing apparel	1,133	1.3	3,824	2.9	12,006	4.3
Chemical products (except industrial chemicals, paints & varnishes)	2,386	2.8	3,900	3.0	5,974	2.1
Furniture & fittings	2,577	3.0	3,077	2.4	5,108	1.8
Printing & publishing	7,006	8.2	9,795	7.5	14,053	5.0
Textiles	1,279	1.5	5,277	4.1	22,406	8.0
Wood & cork products	12,126	14.1	19,916	15.3	40,385	14.5
Leather & leather products	168	0.2	356	0.3	764	0.3
Paper & paper products	635	0.7	1,734	1.3	3,707	1.3
Industrial chemicals, paints & varnishes	1,421	1.6	1,754	1.3	3,704	1.3
Rubber products ^a	14,912	17.4	18,309	14.1	24,189	8.7
Non-metallic minerals	5,127	6.0	7,596	5.8	13,204	4.7
Metal products	5,521	6.4	8,358	6.4	17,788	6.4
Animal feeds	321	0.4	781	0.6	1,639	0.6
Plastic products	531	0.6	1,949	1.5	8,702	3.1
Basic metals	731	0.9	3,107	2.4	6,866	2.5
Non-electrical machinery	4,348	5.1	6,262	4.8	13,247	4.7
Electrical machinery	652	0.8	2,220	1.7	25,347	9.1
Transport equipment	1,615	1.9	3,662	2.8	8,584	3.1
Others	1,813	2.1	1,390	1.1	4,014	1.4
Total	85,899	100.0	130,257	100.0	278,935	100.0

Source: Malaysia, 1963a, 1968, 1973.

^aInclusive of rubber remilling, rubber smokehouses and latex processing.

Although complete censuses are unavailable for the late 1970s, other evidence suggests that the pattern of concentration has been changing. A cursory inspection of the data on industrial production indices (Table 12.2) and exports (Table 12.3) in the 1970s tend to reflect this contention. The output of food, wood and rubber products (with the exception of oil palm processing) grew at a very much lower annual rate than the total manufacturing during the late 1970s. This shows a diversification towards non-agro-based industries. Export trends are similar. The agro-based industries seem to have been changing although slowly from import substitutes to ex-

TABLE 12.2
Manufacturing Growth in Peninsular Malaysia, 1968-1978

Industry	Weights in Production	Industrial Production Index (1968=100)			Average Annual Growth Rate (%)		
	(1968)	1969	1973	1978	1968-73	1973-78	1968-78
Processing of estate-type agricultural products	7.33	110.9	182.2	349.7	12.8	14.0	13.4
rubber remilling and latex processing	(5.00)	107.2	97.8	81.8	(-0.3)	(-3.4)	(-1.8)
oil palm factories	(1.65)	130.4	470.6	1,286.4	(36.6)	(22.5)	(29.6)
crude coconut oil	(0.68)	91.6	105.7	53.3	(1.4)	(11.5)	(-5.1)
Food manufacturing	9.85	108.7	130.3	171.7	5.6	5.8	5.7
Beverage manufacturing	2.71	124.2	169.7	292.1	11.7	11.8	11.7
Tobacco products	4.26	115.0	154.5	191.4	9.3	4.4	6.9
Textile manufacturing	1.28	111.6	196.8	366.8	15.0	17.1	16.0
Wood & related industries	7.09	107.7	203.3	274.1	15.5	7.4	11.4
sawmills	(5.47)	102.9	167.0	231.4	(11.1)	(8.0)	(9.4)
plywood & particle board	(1.37)	126.1	346.2	439.2	(28.5)	(7.8)	(18.1)
planing & joinery	(0.26)	111.7	210.9	301.9	(16.5)	(8.3)	(12.3)
Paper & paper products	0.46	131.7	218.4	328.6	17.3	9.4	13.4
Rubber products	3.80	109.1	166.5	193.1	10.9	3.2	7.0
Chemical & chemical products	5.68	111.5	165.6	203.7	10.8	4.7	7.7
Products of petroleum & coal	3.02	100.1	99.1	188.9	-0.1	14.1	7.0
Non-metallic mineral products	5.51	111.9	147.0	245.6	8.1	11.1	9.6
Basic metal industries	1.58	143.9	225.5	317.5	18.6	7.3	13.0
Metal products	2.52	106.7	242.8	291.5	20.1	5.7	12.9
Electrical machinery dry cells, batteries & related articles	(0.76)	116.1	108.3	259.6	(2.4)	(20.4)	(11.4)
electrical appliances & related equipment	(0.48)	148.4	347.3	795.5	(29.7)	(18.6)	(24.1)
Transport equipment	1.36	210.2	393.0	572.6	37.0	9.7	23.4
Other pioneers	2.75	147.2	474.5	1,438.4	36.9	28.3	32.6
Manufacturing	59.44	115.6	187.1	311.9	13.4	11.0	12.2

Source: Malaysia, (n.d.) f.

port substitutes, thus gradually replacing exports of commodities in the raw form by exports of semi-processed or finished forms. This is again in conformity with what most LDCs aspire to do with their primary products.

Third, the change into non-consumer goods during the middle of the 1970s was largely confined to a small range of goods. Chief among these were electrical goods and textiles. Between 1973 and 1978 the output of electrical appliances and related equipment

TABLE 12.3
 Malaysia: Gross Manufacturing Exports, 1970-1979
 (\$ million)

<i>Industry</i>	<i>1970</i>	<i>1974</i>	<i>1978</i>	<i>1979</i>
Food, beverages & tobacco	112(18)	195(12)	290(8)	364(8)
Textiles, clothing & footwear	32(5)	168(10)	465(13)	577(12)
Wood products	90(15)	250(15)	355(10)	468(10)
Rubber products	17(3)	34(2)	65(2)	76(1)
Chemicals	35(6)	80(5)	102(3)	127(2)
Petroleum products	161(26)	155(9)	100(3)	124(2)
Non-metallic mineral products	20(3)	21(1)	42(1)	48(1)
Iron & steel	12(2)	21(1)	21(0.6)	34(0.7)
Metal manufactures	11(2)	29(2)	87(2)	136(3)
Electrical machinery & apparatus	15(2)	200(12)	1,575(44)	2,253(47)
Other machinery & transport equipment	70(11)	199(12)	254(7)	272(6)
Other manufactures	40(7)	332(20)	258(7)	314(7)
Total manufacturing	615(100)	1,684(100)	3,614(100)	4,793(100)
Total exports	5,163	10,195	17,094	24,219
% share of manufacturing	11.9	16.5	21.1	19.8

Source: Malaysian Treasury Economic Report, 1976/77 and 1980/81.

Note: Figures in brackets are % shares.

(mostly involving electronic components for finished products) increased at an average annual rate of 19 per cent and textiles at 17 per cent, compared with 11 per cent for total manufacturing. Most of these items were exported and the processing operations were mainly undertaken by foreign firms which had readily taken advantage of the relatively low wage rates, the free trade zones and liberal tax and credit incentives. In fact, the low cost of labour was a major attraction for the establishment of these 'foot-loose' labour-intensive industries in Malaysia during the 1970s. This was because there had already been a rapid increase in labour costs in Japan, Taiwan, Korea and Hong Kong, as well as in Europe, Australia and New Zealand.

In sum, the pattern of industrialization in Malaysia has included some conflicting trends. On the one hand, there has been a diversification from consumer goods industries, and, on the other, a concentration on a limited number of new industries. In other words,

there has been a shift from one form of concentration, on basic agro-based industries in early 1960s, to another form of concentration on new electrical machinery¹ and textile industries in the late 1970s.

The Distribution of Establishments by Size

The size-distribution of industrial establishments is lopsided. Most establishments in Malaysia are very small. According to the 1973 Manufacturing Census of Peninsular Malaysia, 90 per cent employed less than 50 full-time workers, but these only accounted for 27 per cent of paid employment in manufacturing and for 19 per cent of value added. The share of small industries (employing less than 50 full-time workers) in terms of employment and value added has been declining quite rapidly. In fact, rapid growth in large industries, especially those employing more than 100 full-time workers, has been an outstanding feature of Malaysian industrialization. For example, in 1963 the share of large establishments (100 or more full-time workers) in total manufacturing employment was about 30 per cent but by 1976 it was estimated to have exceeded 70 per cent.

Differences in economic characteristics between industrial units of different sizes are also apparent. Smaller industries tend to be more labour intensive and less skill intensive, with higher labour-capital ratios and lower value added per worker. In 1973, the value added as a proportion of gross output for large Malaysian manufacturing establishments was about 40 per cent, whilst the average for all sizes together was around 30 per cent.

The larger establishments also absorbed a large part of the money capital available for industrial development in Malaysia and enjoyed more tax benefits (Edwards, 1975: 181). The basis for granting incentives and facilities for credit was mostly biased against smaller industries. Even industrial estates were designed mainly for large-scale establishments (Neilson, 1976: 27). Encouragement of foreign investment, which generally favours large units, indirectly affects the size-composition of Malaysian industry as a whole. All these are important causes of the upsurge of larger industries in the past.

It is usually thought that competition between large and small establishments is supposed to lead to the eventual elimination of the latter. However this process had not become evident in Malaysia by the end of the 1970s. Chee (1975: 189-91) found that except for a few industries like batik printing, plastics and sawmills (where

¹ This refers mainly to chips, semi-conductors and electronic component assembly.

perhaps large firms do not enjoy economies of scale or the product quality differentials are less obvious), competition between firms of different sizes had been minimal. Further, he found that a large proportion of recent manufacturing growth has not been due so much to the expansion of existing firms as to the establishment of new ones (1975: 34). Moreover, the number of establishments granted pioneer status, which are generally much larger than average establishment size, grew more rapidly than the average for all manufacturing. The evidence thus supports the hypothesis that the increasing share of large industries in total manufacturing output has not really been due to displacement of small industries by large ones. The slower growth of small industries has been due partly to the strong effective government support for new large industrial units, partly the relatively lower level of support for the traditional small-scale sector, and partly to the operation of the modern capitalistic processes which place the large units at an advantage due to economies of scale.

The co-existence of small and large firms in Malaysian manufacturing may indicate a form of dualism in manufacturing. While modern large firms usually utilize more sophisticated, high labour productivity techniques, and pay relatively higher wages to their workers, small firms tend to use simple labour-intensive techniques and pay lower wages. This hypothesis is supported by the productivity and wage differentials that appear to exist between industries of different sizes. Whilst the history of the industrialization process in Japan, where there is a strong interaction between the modern large-scale sector and traditional small-scale sector (Watanabe, 1970), has shown that dualism in manufacturing need not necessarily be a hindrance, creative dualism of that type has yet to be widely developed in Malaysia. Studies have indicated that subcontracting and industrial interdependence (Neilson, 1976: 28; Thoburn, 1973b) was lacking in Malaysian industrialization in the 1960s and 1970s. This may be due to the small range of products, a lack of technologically efficient small firms and to overdependence on imports of intermediate goods.

Regional Distribution

In the 1970s there was also a marked geographical dichotomy in the economy, between a small number of 'growth centres' in the west of Peninsular Malaysia, within which is concentrated a larger and diverse industrial sector, and a vast periphery in which manufacturing development is small and lacking in diversity. Tables 12.4 and 12.5 show that the largest proportion of Malaysian manufacturing establishments are located in Selangor. In 1970, 45

TABLE 12.4
Regional Distribution of GDP and Manufacturing Output
in 1971 and 1980
(\$ million in constant 1970 prices)

State	1971		1980	
	GDP \$m %	Manufacture \$m %	GDP \$m %	Manufacture \$m %
Johore	1,436(11.4)	217(11.7)	2,857(11.3)	679(12.6)
Kedah/Perlis	806(6.4)	39(2.1)	1,422(5.6)	110(2.0)
Kelantan	402(3.2)	14(0.8)	764(3.0)	41(0.8)
Melaka	363(2.8)	30(1.6)	688(2.7)	90(1.7)
N. Sembilan	567(4.5)	109(5.9)	1,059(4.2)	200(3.7)
Pahang	629(5.0)	41(2.2)	1,183(4.7)	191(3.6)
Penang	827(6.6)	174(9.4)	2,221(8.8)	825(15.4)
Perak	1,875(14.9)	183(9.8)	2,882(11.4)	511(9.5)
Sabah	848(6.7)	21(1.1)	1,944(7.7)	45(0.8)
Sarawak	882(7.0)	78(4.2)	1,726(6.8)	170(3.2)
Selangor ^a	3,722(29.5)	940(50.6)	7,894(31.0)	2,462(45.8)
Trengganu	261(2.1)	12(0.6)	737(2.9)	50(0.9)
Malaysia	12,618(100.0)	1,858(100.0)	25,376(100.0)	5,374(100.0)

Source: Malaysia, 1981.

Note: (a) Includes the Federal Territory of Kuala Lumpur.

per cent of gross manufacturing output came from this state alone (including the Federal Territory of Kuala Lumpur) and by 1980 this had declined marginally to 46 per cent in constant prices. Penang, Perak and Johore together accounted for 37 per cent in 1980, compared with 31 per cent in 1971. These four major states of the West Coast have accounted for over 80 per cent of Malaysian manufacturing output, in contrast to around 62 per cent of total GDP, whilst having only 43 per cent of the total population and 15 per cent of total land area. On the other hand, the combined contribution of the two states of Sabah and Sarawak to Malaysian manufacturing declined from 5.3 per cent in 1971 to 4.0 per cent in 1980. The major industries of Sabah and Sarawak are wood products and food, which accounted for almost 70 per cent of total value added in those states in 1973.

This concentration of manufacturing industry is due to a number of factors: concentrated urban demand, availability of tertiary industries, access to trained and trainable labour and finance, and agglomeration or 'industry-attracts-industry' economies (Lim Kok Cheong, 1978; Osman, 1978). The development of spatial concentration can be traced back to historical incidents. The expansion of tin and rubber production during the colonial rule was a very

TABLE 12.5
 Malaysia: Regional Distribution of Manufacturing
 Value Added in 1973 (percentage)

Industry	Selangor	Penang, Perak & Johore	Other States of Peninsular Malaysia	Sabah & Sarawak	Total Value Added	
					\$m	%
Food	39.9	40.6	15.5	4.0	379.4	(15.3)
Beverages	72.8	15.3	1.9	10.0	68.0	(2.7)
Tobacco	92.9	4.3	2.8	(a)	130.5	(5.3)
Textiles	16.5	81.7	1.3	0.4	104.6	(4.2)
Wearing apparel & footwear	27.3	62.2	0.3	10.2	42.9	(1.7)
Leather & leather products						
Wood & cork products	15.5	25.6	36.7	22.2	391.1	(15.8)
Furniture & fixtures	51.5	27.9	9.6	11.0	41.9	(1.7)
Paper & paper products						
Printing & publishing	75.4	16.7	2.4	5.5	121.2	(4.9)
Chemical & plastic products	74.5	18.4	6.2	0.9	221.5	(8.9)
Rubber products	39.1	45.1	14.2	1.6	226.1	(9.1)
Non-metallic mineral products	51.5	41.8	4.6	2.1	124.8	(5.0)
Non-ferrous metal products	99.5	0.2	0.2	(a)	9.7	(0.4)
Basic iron & steel products	58.0	35.9	3.5	2.5	195.4	(7.9)
Fabricated metal products						
Non-electrical machinery	67.8	24.8	6.3	1.2	88.3	(3.6)
Electrical machinery	41.7	55.5	2.5	0.3	189.0	(7.6)
Transport equipment	62.0	28.2	2.8	7.0	66.9	(2.7)
Others ^(b)	21.0	21.2	50.0	7.8	75.4	(3.0)
Total	46.9	34.0	13.1	6.8	2,476.7	(100.0)

Source: Malaysia, 1973, 1973b, 1973c.

Notes: (a) Negligible proportion.

(b) Mainly petroleum refineries which accounted for two-thirds of the total. From 5 total number of establishments, 2 were in N. Sembilan and 1 each in Selangor, Johore and Sarawak. For Sabah and Sarawak, item 'others' also includes estimates for non-response cases.

important factor in the expansion of settlement, especially for Chinese and Indian immigrants, in the western strip of the Peninsula. Apart from the large effect on incomes, and on the quantity and quality of the labour force, tin and rubber stimulated the construction of roads and railways which served as foci for marketing and processing of these commodities and shaped the pattern for future industrial development in the country. At the other extreme, the poor transport facilities and geographical distance must have contributed decisively to the relatively slow industrial expansion in the

other states, particularly Sabah and Sarawak. Another cause of spatial imbalance was the concentration of trading, commercial and administrative functions in a few towns, and in these respects Kuala Lumpur, Georgetown and Ipoh had developed rapidly under the colonial administration. After Independence, the commercial and administrative development of these towns attracted industrialization, and industrialization in turn encouraged population concentration there, thus providing mutually reinforcing forces favouring industrial development.

Prior to the NEP period, there was no policy for regional balance. A disproportionate part of Federal expenditure in the development plans was for the benefit of the Federal capital and the administrative towns of the West Coast. Even the agricultural development schemes in the poorer states were initially selected for their suitability rather than for reasons of equity (Holzhausen, 1974: 39-42). Furthermore, rivalries between the state and federal governments over the establishment of industries, and the export orientation of the international capitalist investors, have also produced unbalanced development. The increasing needs for imported inputs, and the lack of inter-sectoral linkages further strengthened the concentration of industries.

An examination of the types of industry and their distribution pattern would reveal the following characteristics: 1. Large firms tend to be more concentrated geographically. It is reasonable to expect industries which operate on a large scale to have only a few establishments to be sufficient to supply most of the entire domestic market, apart from external markets. The smaller local demand commensurates with small establishments, hence can afford greater dispersion. 2. With the exception of tin smelting and petroleum processing, most domestic resource-based industries such as those processing grain, wood, rubber, palm oil, coconut products, and some food industries, tend to be more dispersed (Table 12.5). The location of these industries is largely supply-determined, which emphasizes the importance of transport costs, and external economies of scale are less important in the choice of location. All this shows that size and technological characteristics can be made policy variables for regional balance.

Ownership Structure

The Government's policy of redressing the imbalance in ownership of equity capital and control of enterprises between Malaysia and foreigners is being implemented under the NEP. Under that policy, for import substitution industries, the Government requires a high level of Malaysian ownership. But where technology is not

sufficiently developed foreign participation may be allowed up to 49 per cent of the total equity. In export-oriented industries which utilize mainly imported components, the Government generally allows majority foreign participation. Examples of the latter are found in the electronics, high precision and technical industries, and in the assembly and manufacture of cameras, watches and scientific equipment. For projects involving the extraction and primary processing of non-renewable domestic resources, at least 70 per cent Malaysian equity (including 30 per cent Bumiputra) has been required. In practice, however, implementation of the equity participation strategy has been flexible. Factors which are taken into account in the consideration of equity structure include the amount of investment, the level of technology, the location, the degree of export orientation, employment levels, the degree of integration with existing industries, the promotional effects, the level of industrial development and spin-off effects.

The Government's policy of restructuring the society also aims at 30 per cent equity participation of Bumiputras in the industrial sector by 1990. This target is not necessarily applied to individual enterprises. According to official estimates, ownership of share capital in limited companies by Bumiputra individuals in Malaysia was still low at the end of the 1970s, but had increased from 2.6 per cent in 1971 to 4.3 per cent in 1980. In addition, the share of Bumiputra interests or trust agencies (statutory authorities like MARA, PERNAS, UDA, FIMA, SEDCs, and others) had increased from 1.7 per cent in 1971 to 8.1 per cent in 1980 (Malaysia, 1979c, 1981). The problems are obviously the scarcity of Bumiputra entrepreneurial talent and capital, and how to redistribute shares from Bumiputra interests to individuals without seriously increasing inequality between Bumiputras.

The 1973 manufacturing census shows that about 95 per cent of establishments were owned or controlled by Malaysians. But these establishments are typically small and over 85 per cent were in the form of sole proprietorship or partnership and another 3 per cent were owned by co-operatives.

Malaysians controlled about half the output. The remainder was mostly in the hands of foreigners, from Britain, America, Japan and Hong Kong, as well as Singapore. Foreign control has been predominant largely in incorporated establishments, where capital-intensive technology is typical. Such industries tend to utilize their capital plant and machinery more efficiently (D. Lim, 1975: 171-81), though they reinvest a much smaller proportion of their profits than their Malaysian counterparts (Chong, 1974: 56). They have also generally paid higher wages than local firms (D. Lim, 1977:

55-6; Van der Meijden, 1973; L. Lim, 1976: 7). The high-wage policy adopted by foreign firms suggests that better quality labour is necessary to secure efficient capital utilization and that high labour turnover, which has not been uncommon in Malaysian industry, can be very costly. The foreign firms were also found to import a larger proportion of their input requirements. Studies have shown that the value of imports often exceeded the value of exports. In contrast, domestically-owned firms tended to create more foreign exchange saving as a proportion of value added than foreign-owned firms (Lindenberg, 1973; L. Lim, 1976; Lall and Streeten, 1977).

In order to ensure the orderly development and growth of industries and to achieve a better balance in ownership and control of capital, the Industrial Coordination Act was formulated by the Government in 1975 and later modified in 1977 after consultation with industry (Malaysia, 1979b). This legislation sought to license all but the small industries with shareholders' funds of less than \$250,000 and less than 25 full-time paid employees including the milling of oil palm fresh fruits into crude palm oil, the milling of padi into rice and the producing and processing of raw natural rubber. In issuing a licence, the Minister of Trade and Industry is empowered to impose conditions which he deems necessary for a more effective implementation of the NEP. These conditions relate to equity and employment structure, quality standards, anti-pollution control, etc. This sort of orientation towards what may be called 'managed industrialization policy' has often been criticized in some quarters as unduly restrictive, despite the repeated assurances by the Government that it will implement the Act with pragmatism and flexibility. On the other hand, the Government may also view the protection of the legitimate rights of its nationals as a trust which is also jealously guarded by most other countries, including the developed countries from which the multinational corporations emanate.

Employment Structure

One of the outstanding problems in Malaysia is that race is still identified with economic activities. Fresh efforts have been made to change this and, amongst other things, to achieve a more balanced racial distribution of the employed labour force.

Official figures for 1976 indicated that 36 per cent of industrial workers were Malays, 56 per cent Chinese, 7 per cent Indians and the remainder other races. These proportions did not by any means reflect the racial profile of the Malaysian population, and for certain occupational categories the position was even worse. The participation of Malays in industrial activity has been very low

among the higher employment categories. For example, it was reported that in 1979, Bumiputras comprised only 17.6 per cent of the managerial and professional sector, 28.7 per cent of the technical and supervisory sector and 20.4 per cent of the sales sector (*New Straits Times*, 26 April 1981). The main reason for this has certainly been a disequilibrium between demand and supply. The rapid increase in large firms had generated a high demand for qualified personnel. But the increase in the supply of suitable Malays or Bumiputras had lagged far behind this demand. Although there has been some widespread improvement in the position of the Bumiputra population, many benefits have gone relatively more into the hands of a few privileged Bumiputras, and this has aggravated income inequality among the Bumiputras. Perhaps, the main concentration should be not so much on the numbers of Bumiputras employed in specific industries, but rather on how to improve the opportunities and capacities of the Bumiputras in general.

In terms of distribution by sex, there is a large proportion of female workers in the manufacturing sector, especially in electronics, textiles and clothing. In 1976, 41.3 per cent of manufacturing workers were female (Malaysia, 1980a). This proportion was higher than the national average which was 34.4 per cent. Most of these workers were below 25 years old, and had only lower secondary or less education. With the relatively high rate of increase in electronics and textile production in the second half of the 1970s, the proportion of female workers will certainly have increased further. In the 1970s a substantial portion of the new unskilled factory workers, male and female, were Malays from the rural sector, and at the end of the decade there were reports of labour shortages in many rural areas.

FACTORS RELATED TO GROWTH AND STRUCTURAL CHANGE

Some of the determinants of growth and structural change in Malaysia have already been mentioned. In this section three major sets of factors will be discussed in greater detail—tariffs, exports and linkages. These three have been selected for discussion not because they have contributed positively, for in fact, some of them have not, but because of their relevance for future development.

(a) Tariffs

At least up to the middle of the 1960s Malaysia's industrial growth depended mainly on unassisted import-substitution for which high tariff protection had not been necessary. The average

protection rate for manufactures in 1965 was estimated at -6 per cent (Balassa, 1971). But since then, Malaysia's protection structure has undergone rapid changes. By the 1970s higher protection had been accorded to a wider range of products, including consumer goods, intermediates and capital equipment. Average protection for manufacturing at the end of 1973 had risen to an estimated 60 per cent, which was comparable with that of Brazil and the Philippines in the early 1960s (Malaysia, 1975). The rationale was simply to encourage investment, by foreign as well as local investors in new and more diversified products, and to take advantage of the market potentials. Such tariffs can play an important role in signalling opportunities, and in guiding investment decisions, when private investment is dominant as in Malaysia (Teh, 1977). Yet the differential rates of protection, by themselves, do not seem to correlate well with differential rates of growth between industries in the 1970s. This conforms to experiences in a number of other countries.

From the growth experience of Malaysian manufacturing in the 1970s, a simple classification of industries can be made:

1. industries with higher than the average growth rate: electrical appliances, textiles, plywood and particle board, transport equipment and oil palm processing;

2. industries with growth rates lower than the average: rubber processing, food, tobacco products, rubber products, chemicals, and non-metallic mineral products;

3. industries with growth rates about average: beverages, saw-mills, paper, basic metals and metal products;

If we compare these sets of industries with effective protection rates in 1973 (based on the Economic Planning Unit study), we notice that in the first set, only electrical appliances and motor vehicles had high effective protection. But the others, including transport equipment, had relatively little protection. In the second set, protection was high for chemicals, rubber products, most food items and tobacco products. Only rubber processing and non-metallic mineral products had low protection. Among the industries in the third group, beverages and structural metal products had above average protection and the rest much below average.

It is apparent that the rates of growth do not seem to correlate at all with measures of effective protection.

There may be several reasons for this lack of correlation, but it boils down to the fact that tariff is by no means the only factor that affects the growth of industries. The interplay of several factors can produce a wide variety of net effects, some of which may operate in opposite directions. Such factors would include market

outlets, export opportunities, scales of operation, technological advancement, and managerial abilities. On the other hand, the tariff structure in Malaysia may have been biased against growth in some industries, limiting them to domestic markets and effectively preventing export expansion. The bias against exports would tend to increase as protection given on domestic sales increases.

The protection structure in the 1970s also did not seem to favour labour-intensive industries. In several cases, labour-intensive industries received lower protection than capital-intensive ones (Malaysia, 1975). Experience also shows that the most capital-intensive industries have not necessarily been the fast growing ones (Hoffmann and Tan, 1971).

All this suggests that the protection structure had not been operating satisfactorily and that constant adjustment may be necessary to make it a useful instrument for industrial development of this country.

(b) Exports

Rapid increases in the exports of manufactures only became an important feature of Malaysian industrialization in the 1970s. The composition of manufacturing exports had been changing in that decade. In 1970, petroleum products, food, beverages and tobacco and wood products accounted for almost 60 per cent of the total, but by 1978, electrical machinery and apparatus had become the leading component, accounting for 44 per cent of all manufactured exports, with textiles, clothing and footwear making up another 13 per cent and wood products 10 per cent. Correspondingly, the share of food, beverages, tobacco and petroleum products declined substantially.

Although exports contributed significantly to manufacturing growth in the 1970s they were restricted to a narrow range of commodities and were produced largely by foreign-controlled firms. A substantial portion of these exports (36 per cent in 1976) went to the developed countries like USA, Japan, Australia and the EEC countries. Another 10 per cent went to centrally planned economies. Nearly 20 per cent went to Singapore, but most were presumably for re-export.

Generally, Malaysia tended to follow in the footsteps of Japan, Korea, Taiwan and Hong Kong by expanding its exports of labour-intensive and resource-based manufactures as these countries move out of them because of rising costs of labour and raw materials.

Despite the rapid growth of industrial exports, at the end of the 1970s Malaysia was still a net importer of industrial goods. It was the structure of the imports and exports that had changed, rather

than the direction of the net flow. Imports had become more concentrated on intermediate and capital goods, and less on consumer goods, whilst exports had become less dependent on unprocessed primary products—important though these still were. As part of this process, the importance of intermediate goods for Malaysia's manufacturing industries increased significantly, rising from 21 per cent of total imports in 1970, to 27 per cent in 1978, whilst the share of imports of investment goods increased from 28 per cent to slightly over 30 per cent.

(c) Linkages

The rate of industrial growth in the 1980s and 1990s will depend to some extent on the degree of inter- and intra-sectoral interaction. The linkages induced by the supply of inputs to other industries are expected to transmit growth impulses from one production activity to others.

A study of the 1970 input-output table for Peninsular Malaysia (the latest table available) shows that there was still at that time little interaction between sectors, or even within sectors, in Malaysia. As the manufacturing sector has been growing at about twice the real growth rate of GDP, this indicates the weak inter-dependence between the industrial sector and the others. Consequently, industrial growth has been mainly explained by factors specific to the industry concerned.

The input-output table also indicates that most of the fast growing industries, like metal products, electrical machinery, textiles and transport equipment, are export-oriented and, at the same time, dependent on imported inputs. These industries therefore have weak forward and backward domestic linkages (due to export and import leakages), and this fact, together with the degree of concentration on consumer goods, has meant that manufacturing growth in Malaysia was not greatly affected by linkage mechanisms. This, if allowed to continue, will make sustained industrial growth more difficult in the 1980s and 1990s.

PROSPECTS AND TRENDS

In general, Malaysian experience of industrial growth has been typical of the process observed in many other LDCs. Although the rates of change may differ, the basic patterns are similar. These similarities can largely be traced back to common external factors facing the economies, and to similar economic policies and aims. Many similarities in economic background, such as a history of dependence upon primary exports, high population growth, scarcity

of capital and skills, an early import-substitution industrial policy, and strong influence from colonial policies and philosophies, tend to produce similar sets of disadvantages—for example, underutilized industrial capacity, sub-optimal industries, weak linkages, rural-urban migration that is rapid and regionally concentrated, with high urban unemployment and wide income disparities.

A wide spectrum of problems of great urgency and sensitivity is met with in consolidating a nation with a multi-racial society characterized by socio-economic and cultural diversities. Malaysia cannot afford simply to aim at maximum economic efficiency and growth, in isolation from the questions of equity and welfare for all her citizens. As Malaysia enters the 1980s, the critical industrialization problems associated with the recent perception of priorities embodied in the New Economic Policy are still unsolved. Indeed they are likely to be sharpened by changing international economic and political relations.

Under these conditions, there are two important strategies that can be followed in order to promote industrial development. One is to probe into the international markets and the other is to widen the domestic markets for manufactures.

Issues Concerning Export Expansion

How far the strategy of export expansion can accelerate industrial development depends on a number of external factors, many of which are beyond the control of the Malaysian Government, such as the willingness of the industrialized countries to import manufactured products, their levels of prosperity, and the political and economic stability of the South-East Asian region.

There are indications that this path is not likely to be easy. First, industrial exports are narrowly based, comprising mainly electronics, textiles and clothing. As the world market for electronics is already practically saturated (World Bank Report 1978), further rapid growth of exports of these items will depend on their ability to displace the more established producers, including Hong Kong, Japan and European countries. The prospects for electronics may also be adversely affected by the evolution of technology and the rising cost of labour. Besides, although electronics industries have created a lot of employment,¹ they have at times been unstable because of the vulnerability of export-oriented industries to external fluctuations (L. Lim, 1976: 14). Also, the linkages with local establishments, the skill, training and technological transfer among elec-

¹ By the end of the 1970s, slightly over 20 per cent of employees in the manufacturing sector were from the electronics industry (Cheong and Lim, 1981).

tronics and electrical establishments seem to be very limited (Cheong and Lim, 1981).

Similarly, the exports of textiles and clothing may be hampered by the recent increase in protection in these products in the West. This protectionism¹ is already forcing many East Asian textile manufacturers to abandon cheap, low quality lines and to substitute high quality fashion goods, thus having thousands of idle spindles (*Far Eastern Economic Review*, 28 March 1980). But moving into the much smaller, high quality fashion market can meet with sharp competition. Difficulties may also arise from the lack of experienced fashion designers, dependence on outdated machinery, and from the difficulty of meeting government employment expectations from this rather specialized industry.

Second, there is a high probability that the real growth of GNP in industrialized countries will fall in the 1980s, and even worse may ensue if the world political crisis and economic slowdown continued. When combined with the increasing trade protectionism in support of the domestic industry of the advanced industrial countries, the exports of the developing countries, including Malaysia, may be seriously constrained by these conditions.

A wider range of products and of export markets may help to reduce the risks and uncertainties. But how far this can be done depends upon several factors: Malaysia's success in borrowing from international lenders is one; the success of trade negotiations with other countries, and in particular the effectiveness of ASEAN as an economic force, is another; local ability to deal with technical and marketing problems is a third. Indeed, the lack of capability to adapt imported technology to suit local conditions, as shown by a high dependence on imported elements, is a major problem in Malaysia. There is a local shortage of trained scientists and of well developed institutions for research and development which operate in fields relevant to manufacturing industry. To sustain industrial growth and export capability in the competitive world market, Malaysia needs urgently to improve its technological self-sufficiency and to upgrade its workers' skills. Therefore, how to adapt new technologies to suit local needs and how to reduce dependence on foreign expertise, will remain challenging issues in the 1980s and 1990s.

As the typical labour-intensive industries move towards saturation, the changes that had to be faced in Taiwan, Korea, Hong Kong

¹ In contrast to the 'old protectionism' which relied heavily on tariffs, the new protectionism is mainly in the form of non-tariff restrictions on trade. The Multifibre Arrangement is one of the known examples (see UNIDO, 1979: pp. 18-20).

and Singapore in the 1970s will have to be faced in Malaysia in the 1980s. Low cost labour-intensive industries may be attracted to other countries like Indonesia, India and Bangladesh. Future industrial investment in Malaysia, whether for the home market or for export, will have to be increasingly intensive in capital and technology. The establishment of the Heavy Industries Corporation of Malaysia Berhad (HICOM), 'to plan, implement and manage projects in the field of heavy industries, requiring large investment outlays and having long gestation periods' (Malaysia, 1981: 300), is a step in this direction.

However, the problems involved should not be over-estimated, and the economic resilience and growth of Malaysian trade in the 1970s should not be forgotten. Factors favouring such economic resilience include the export potential in the 1980s for oil, gas, copper and new agro-based products, which are good. Moreover, Malaysia should still be able to borrow on a large scale from international banks, given her low debt-service ratio, in order to keep the economy going. Also trade among developing countries has proven to be less automatically tied to First World performance than had been assumed, and there is a strong likelihood that this will gradually expand. In addition, closer co-operation between ASEAN and the EEC, Japan and USA, should have expansionary effects. Finally, avoidance of excessive rates of domestic protection (originally part of the import-substitution policy) should help the desired shift towards export orientation, particularly for those manufactures which have relatively low domestic costs, such as resource-based industries, including the manufacture of cement, paper and paper products, and petro-chemicals.

Long-term uncertainties about industrial export prospects, however, means that Malaysia will also have to rely upon the other strategy, i.e. to achieve a more broadly based expansion of domestic demand, promotion of new import-substitution industries and an increased flow of labour and entrepreneurship from agriculture to manufacturing industry, especially in rural locations.

Issues Concerning Domestic Market Expansion

For reasons already discussed, industrialization was not able to spread into the extensive less developed regions of Malaysia during the 1960s and 1970s. The public investment that had been directed to the rural areas was concentrated mainly on the provision of amenities, and on the development of estate or traditional small-holder agriculture. The development of human capital in rural areas, particularly with regard to the needs of a highly commercialized and productive rural sector that would include small-scale, but ef-

ficient industrial units, had always been neglected. Even in the 1960s and 1970s when so much other progress was made, no effective institutional basis for the training of small farmers in various skills necessary for the development of small industry or commerce was provided. As a result, at the beginning of the 1980s the small farm communities were still lacking in manpower trained in many of these necessary skills, such as marketing, management, operation of co-operatives, and the ethics of work and discipline.

The experience of Japan and Taiwan, for instance, shows that increases in the productivity and income of farmers, monetization of the economy and improvements in the system of finance and credit are important factors in the growth of demand for industrial goods, including wage-goods and non-consumer goods. Related to this, the development of small-scale and resource-based industries and those with greater linkage with the agricultural sector (like fertilizer and agricultural machinery) are expected to become more important in the 1980s, not only as a basis for redistribution (of industries, income and employment) but also as a means of providing industrial training for the rural labour force, and especially for the Bumiputras, who dominate the rural sector. But this type of rural development is notably a difficult and complex process and may even take decades before it can be fully realized.

To supplement this, it may also be worthwhile to consider a next round of import substitution involving more sophisticated industries in view of the expanding purchasing power of the nation in the 1970s, as suggested by Tan Tat Wai (1981). However, more in-depth studies are necessary for the identification and choice of appropriate industry, and these necessarily entail the consideration of social objectives in addition to economic efficiency and income growth.

CONCLUSION

The future development of manufacturing in Malaysia has to depend, on the one hand, on an export market clouded with risks and uncertainties, and in which Malaysia's comparative advantage cannot be assured, and on the other hand, on the expansion of internal demand, especially in the rural sector where the majority of the population lives, which is costly and will take a long time to accomplish. But together with the development of carefully selected new import-substitution industries, the manufacturing sector still stands a good chance of continuing to be the fastest growing sector throughout the 1980s or even the 1990s. What is needed is a massive effort on all fronts to make full use of the vast wealth of human and physical resources.

Industrial development in the 1980s and in the 1990s, however, is likely to be much more restrained by effective demand (external and internal) than in the 1960s and 1970s, when supply was the main constraint. On the demand side, achievement of industrial growth will be made difficult by external conditions over which Malaysia and its government can exert little or no control, and these conditions will impose constraints and certain options within which the operation of Malaysian policy will be confined. Similarly, constraints imposed by internal demand will include not only economic factors such as income inequality and low productivity in the agricultural sector, but also social, political and geographical factors which determine the limits of economic adjustment that are acceptable to society at the time. Viewed from the supply side, Malaysia already has some very important advantages in manufacturing development. Amongst these are a very satisfactory level of infrastructure, including transport services, supplies of utilities, banking and commercial expertise. There is also a literate and as yet low cost labour force, and a limited but high quality pool of skilled professional and technical expertise. With the emphasis being given to the role of training institutions such as Industrial Training Institutes, vocational and technical schools, the National Productivity Centre, colleges and universities, the development of skills, technical know-how and entrepreneurship will be further enhanced. Together with economic and political stability, Malaysia should not be at too much of a disadvantage in competition with other industrializing countries. In its process of development in the 1980s the diversification within manufacturing production and exports would become as important as the diversification into export of manufactures in the 1970s and into manufacturing in the 1960s.

To what extent the manufacturing industry can decentralize into the less developed regions and increase Bumiputra participation in the higher paid ranks of industrial employment, will, however, remain important issues in the 1980s and 1990s. The constraints inherent in the development of manufacturing industries in Malaysia will not diminish the need for the Government to devise policies to make the best of such opportunities as do exist to support its aim for 'redistribution with growth'.

13 Money, Banking, and Monetary Policy¹

THE growth and development of the financial system of Malaysia in the 1960s and 1970s has been remarkable. In the mid-1950s, the system was dominated by the branches of foreign exchange banks, mostly British, established principally to service the foreign commercial interests and the colonial government. The country's currency was issued by a Currency Board and was backed by balances with the Bank of England and other sterling assets.

By the end of the 1970s, the country's financial system had become very much more diversified and relatively sophisticated, and it included a range of bank and non-bank financial institutions operating under the general supervision of a Central Bank. There were over 500 bank branches in the country, giving a population per banking office ratio of approximately 26,000 to one, which is among the best in the developing world. The banks in the country had become Malaysian institutions serving Malaysian national needs and priorities. And the Malaysian ringgit, although floating against a basket of currencies, was among the strongest and most stable in the world.

THE DEVELOPMENT AND STRUCTURE OF THE FINANCIAL SYSTEM

The development of the Malaysian financial system since 1950 may be divided into three main periods:

- A. Currency Board Period 1950-8;
- B. Co-existence of the Currency Board and the Central Bank, 1959-66; and
- C. Towards complete autonomy of the Central Bank, 1967-79.

A. Currency Board Period, 1950-1958

In the 1950s, the monetary and banking system of Malaya was characterized mainly by 1. foreign trade orientation; 2. foreign,

¹The authors would like to thank Dr Chong Kwong Yuan and Mr Chua Yee Yen for their invaluable assistance.

especially British, investment; and 3. foreign, again principally British, commercial banks.

Banking was carried out mainly by the branches of exchange banks (mainly British), which concentrated on financing foreign trade, providing working capital for the foreign-owned rubber and tin companies, trading houses, and well-established local entrepreneurs.

On the other hand, the local banks (mainly Chinese) served the small business interests of certain dialect groups, and the volume of operations was much smaller than in the foreign banks. There was one Malay bank established in 1947, but it subsequently failed.

Because of the profitability of foreign exchange business, banks dealt mainly with short-term rather than long-term financing. The foreign banks and local banks both held substantial liquid assets, and the British banks maintained large reserves with their London head offices. Likewise the local banks, with their involvement in foreign exchange dealing, had to hold large balances with British overseas banks due to the volatility of their deposit flows in a financial system that did not have a Central Bank as a lender of last resort.

The two main thrift institutions in the country at that time were the Post Office Savings Bank, which had the advantage of having branches throughout the country along with the postal services, and the Employment Provident Fund (EPF), which served as an intermediary directing forced savings into the financing of the nation's development programmes.

The currency in circulation was the Malayan dollar, issued by the Board of Commissioners of Currency for Malaya, Singapore, British Borneo and Brunei. A distinctive characteristic of the Currency Board System was the high level of external reserves, held in sterling balances and deposits, as backing for the currency.

Pegging the Malayan dollar at the constant rate of \$1 = 2s. 4d., backed by sterling reserves, had two advantages. First, the country was able to attract foreign investment into the rubber plantation and tin mining industries; and secondly, trade was facilitated not only with the Sterling Area but also with the rest of the world, since sterling was a major key currency. In fact, in the 1950s Malaya was the highest US dollar exchange earner within the Sterling Area.

Although the Currency Board system provided a stable and strong currency and facilitated foreign (mostly British) investment and trade, it also had certain disadvantages for the country's internal stabilization management and long-term economic development. Among the disadvantages was the fact that Malaya's money supply was affected by the economic conditions and policies of other par-

ticipating governments within the Sterling Area. Moreover, the effectiveness of the country's monetary policy was limited by the dependence of internal stabilization on the external balance of payments. Since Malaya was a very open economy with trade accounting for 40–50 per cent of the nation's GNP, any changes in the external trade conditions affected its external reserves and were thus automatically transmitted to the country's money supply. In addition, the use of exchange rates as a tool for internal balance was not possible.

Under the Currency Board system, the country was not able to apply internal stabilization controls nor could it sterilize or demonetize any sterling movements. It could not regulate the operations of the commercial banks directly, nor could the government undertake certain counter-cyclical monetary operations, such as more selective or stringent exchange control. Furthermore, the Currency Board's minimum requirement of 80 per cent currency reserves backing had a high opportunity cost, as the country could have deployed these resources internally to finance its own developmental needs.

B. Co-existence of the Currency Board and the Central Bank, 1959–1966

Despite the establishment of the Central Bank as Bank Negara Tanah Melayu in 1959, the Currency Board still continued to be the sole currency-issuing authority until 1967. The Central Bank's legal function was the supervision and monetary management of the nation's financial system. The Central Bank in this period therefore concentrated on the 'Malayanization' of the nation's financial assets and institutions and the expansion of the country's financial structure. Specifically, it encouraged and facilitated the establishment and growth of domestic incorporated banks, and also the establishment of their branch networks to serve the financial needs of the country's smaller towns and rural areas. It also encouraged the transformation of the banking system's holdings of sterling assets into Malaysian assets and balances as well as greater and longer-term lending by the nations' commercial banks to support the country's long-term national objectives and developmental needs.

At the beginning of the 1960s, there were 26 banks, of which only 8 were locally incorporated, and these accounted for only 11 per cent of the total branch offices in the country and 6 per cent of the banking system's aggregate assets. Only 30 per cent of the total resources were extended as bank credit to finance business activities locally, while nearly 40 per cent were held or invested overseas. However, by 1967, as a result of the Central Bank's de-

liberate but pragmatic intervention, the total number of locally-incorporated banks had grown to 16, or 42 per cent of a total of 37 banks of all kinds. More significantly, nearly half of the 314 branch offices belonged to the locally-incorporated banks, which also held 36 per cent of the aggregate assets, 33 per cent of deposits and provided 32 per cent of all bank credit. Furthermore, less than 10 per cent of bank resources were held overseas while more than 45 per cent had been issued in bank loans and advances locally.

However, in the 1960s, the Post Office Savings Bank, which had previously intermediated between the middle- and lower-income savers and institutional borrowers (mainly the Federal Government), experienced a serious reduction in its deposits. This was due partly to severe competition from finance companies which offered a higher return on savings and fixed deposits, and partly to the rapid geographical expansion of commercial banks. In this period, the Employees Provident Fund played a very important role in financing the nation's development programmes.

Since it was the Central Bank's objective to ensure that the nation's financial structure served Malaysian needs, new financial institutions and financial instruments were introduced. Among them were the Malaysian Industrial Development Finance Berhad (MIDF), established in 1960 to extend medium- and long-term credit to industrial projects; the Stock Exchange of Malaysia and Singapore, established in 1962 to promote the development of a capital market; and the development of Treasury bills and Government securities as instruments of monetary management.

By 1963, when Malaysia was formed, the Central Bank became Bank Negara Malaysia and began to take a more direct role in promoting the country's economic and financial development. Despite this, the management of the nation's economy remained dominated by fiscal measures (see Chapter 14), and monetary policy played only a complementary role. The monetary policy was at that time aimed at ensuring a persistent national balance of payments surplus by preventing capital outflow, and by setting internal deposit rates slightly higher than London's to attract long-term capital inflows to finance the country's growth. In addition it attempted to influence the volume of money and bank credit through changes in the Central Bank's requirements regarding statutory reserves, bank liquidity and deposit and lending rates.

Most Treasury bills and Government securities were thinly traded in the secondary market during the 1960s. They were mostly held to maturity by financial institutions and statutory authorities, as part of their statutory asset and liquidity requirements. The only relatively active money market was the inter-bank market, which

the commercial banks utilized to meet their very short-term daily and weekly liquidity requirements. The issue of new corporate equities was also significant.

C. Towards Complete Autonomy of the Central Bank, 1967-79

This period was marked by two important events:

1. The currency split between Malaysia, Singapore and Brunei due to failure in the negotiations for a common currency after the separation of Singapore from Malaysia in August 1965. As a result, Malaysia started to issue her own currency in 1967. However, interchangeability was maintained between the currencies until 1973. This proved to be a constraint on the monetary management of Malaysia, since cooperation with Singapore was required.

2. The severance of all monetary ties with Singapore took place in 1973, which meant that the Central Bank then gained full control of the monetary management of the nation.

When the Central Bank commenced to issue its own currency, the par value of 2s. 4d. sterling was maintained for the new Malaysian dollar. Thus, the old Malayan dollar was redeemed in exchange for the Malaysian dollar at par. However, when sterling was devalued in November 1967, Malaysia decided not to devalue the new Malaysian dollar but to maintain its gold parity, while the old Malayan dollar was devalued with sterling automatically. Hence, the Malayan dollar became equal to only 85.71 ¢ of the Malaysian dollar.

In June 1973, Malaysia adopted a floating exchange rate system. This was partly due to the instability of the U.S. dollar which was then the official intervention currency, following the dismantling of the Sterling Area when sterling was floated in 1972. During the same year, discriminatory exchange control regulations were abolished in favour of uniform exchange control regulations with all countries except Rhodesia, South Africa and Israel.

In 1975, Malaysia followed the example of many other countries by adopting a 'dirty float'. The value of the ringgit¹ was tied to a basket of selected foreign currencies, subject to adjustment by the Central Bank when this seemed necessary.

Despite the rapid expansion of the commercial banking network, and its penetration into the rural areas, the distribution of banking offices was still heavily biased towards the urban areas. At the end of 1978, there were altogether 509 bank branches, which gave a ratio of one branch to every 26,000 people. Of these, 129 branches were in the Federal Territory and Selangor where the ratio was

¹ Under the Malaysian Currency (Ringgit) Act, 1975, the names of the units of Malaysian currency were changed from dollars and cents to ringgit and sen respectively, with effect from 28 August 1975.

one branch to every 16,600 people, whilst in Kelantan, for example, there was only one branch to every 59,000 people. Due to an embargo on new branches since the early 1960s, foreign banks had fewer branch offices than locally-incorporated banks, but their influence was still strong. Of the six commercial banks with assets exceeding \$1,000 million each, three were foreign banks. Together, these six banks accounted for 64 per cent of the total assets of the banking system at the end of September 1978. The rest of the banks were small banks, nine of which (five domestic and four foreign) had total assets of less than \$100 million each.

Commercial banking in Malaysia has undergone numerous changes. The late 1970s brought the introduction of modern banking technology with automation and computerization, thereby offering better services to the public. Earlier on, in the late 1960s, the direction of bank credit shifted from the traditional trade financing to the financing of industrial production. In addition, bank credit to the agriculture sector was gradually rechannelled to non-traditional agricultural production, especially palm oil and forest products. These changes caused a lengthening in the maturity structure of bank credit as loans gradually changed from overdrafts and short-term financing to term loans.

Various other intermediaries also emerged during this period, but their impact was still not greatly felt. These were notably the merchant banks, which were to complement commercial banking by providing wholesale banking services and to develop the money and capital market, and other government-sponsored development finance institutions such as the Agricultural Bank, the Development Bank and the Industrial Development Bank which were established in 1969, 1973 and 1979 respectively. These banks specialized in the financing of economic development, through the provision of loans on terms conducive to the needs of their specialized customers from the agricultural and industrial sectors. In addition, the Post Office Savings Bank was transformed into the National Savings Bank in 1974, as part of the Government's effort to rejuvenate it into an effective savings institution.

As for the financial markets, the foreign exchange market was very active, with six broking firms by the end of the 1970s, servicing the needs of the financial sector. However, the local money market was relatively inactive partly for lack of adequate money market instruments, and partly because the merchant banks had not adequately operated as financial intermediaries in the money and capital market. In fact, the merchant banks were competing with commercial banking through the 'back-door' by concentrating on their fund-based operations at the expense of their fee-based opera-

tions. This was due to the limitation of sources of funds, the shortage of professional staff, and the lack of demand for financial advisory services. The large foreign companies normally have their own in-house experts to advise them on management and financial affairs while the local companies have not developed the sophistication to need such services.

By the end of the 1970s, several changes had been introduced by the Central Bank to promote fee-based activities by the merchant banks. They were set a target of earning 30 per cent of their income from fee-based activities and, in order to broaden their deposit funding base, merchant banks were allowed to include corporations and institutions as their customers, as determined by the Central Bank. Additional instruments in the form of bankers' acceptances (BA) and negotiable certificates of deposit (NCD) were also introduced.

The initial reception of NCDs was rather lukewarm, partly because of the conservative attitude of the corporations which still placed more weight on high interest rates than on liquidity. Hence fixed deposits which pay a higher rate of interest were still preferred to NCDs, while liquidity problems were still left to be resolved in the traditional manner by getting an overdraft. Part of the problem was the lack of a secondary market for NCDs, so that discounting the NCD on a tight secondary market was liable to be even more expensive than an overdraft. Fluctuating interest rates further aggravated the situation since in a period of high interest rates the holder might be forced to sell NCDs at a loss. In contrast, banker acceptances were doing quite well in the primary market, especially those drawn for thirty days, the cost of borrowing of which could be below the prime rate. The Central Bank also offered lender of last resort facilities for bankers' acceptances. Since Central Bank regulations require that a banker's acceptance must be discounted at least once on the secondary market before it qualifies for rediscounting with the Central Bank, the bankers' acceptance had an active secondary market, compared to the NCD.

Over the period, the inter-bank market developed rapidly to provide liquidity for the banks. In 1964, the average monthly borrowing on the domestic inter-bank market was only \$15 million. This rose to \$107 million in 1967 and subsequently increased to average \$430 million a month during the first nine months of 1978. Since 1973, the Government also encouraged the development of a bills market, and sold Treasury bills by regular weekly tenders.

By the end of the 1970s, the capital market had grown to be an important source of funds for the financing of the development plans of the nation. Financial institutions were forced by the liq-

uidity requirements of the Central Bank to be 'captive' investors in government securities. However, the government securities market was still mainly a primary market, since there was little secondary trading in these securities.

Three major events facilitated the development of the corporate securities market. These were, firstly, the establishment of the Capital Issues Committee in 1968 to examine information on the financial standing of companies seeking to make new issues or to be listed; secondly, the establishment of the Kuala Lumpur Stock Exchange in 1973 after the separation of the Common Stock Exchange with Singapore in that year; and thirdly, the enforcement of the new Securities Industry Act in 1976 to regulate the activities of the market in order to prevent malpractices such as short-selling and insider trading. However, despite these developments, new issues of corporate securities have still been on a relatively small scale since, traditionally, corporate investment in Malaysia was financed mainly by the entrepreneurs' own capital, including undistributed profits and depreciation allowances. In 1969, the Bumiputra Stock Exchange was established to promote the participation of bumiputras in commerce and industry.

The Central Bank had over the years imposed increasing control over the financial system. This was evidenced in the Banking Act of 1973 which stipulated in substance and detail the Central Bank's powers of supervision and control over banking institutions. The Act included some rules regarding specified legal penalties for offences, and laid down procedures for the licensing of banks. It also covered financial requirements and duties of the banks, certain aspects of ownership, control and management of banks, and imposed restrictions on the conduct of banking business. Furthermore, finance companies licensed as borrowing companies, merchant banks and discount houses were also brought under the ambit of the Central Bank.

By the 1970s, the role of monetary policy in the economy had undergone a dramatic transformation. Between 1973 and 1979, monetary policy was actively used, in conjunction with fiscal policy, for macroeconomic stabilization. This was due in part to the turbulent international and domestic conditions which prevailed during those years. Reserve requirements were imposed both on the finance companies and on the merchant banks during this period. In addition, credit policy was aimed at the redistribution of credit in consonance with the New Economic Policy (Malaysia, 1971). To this end, several new financial measures were introduced.

First, a Credit Guarantee Corporation (CGC) was established in July 1972 with equity participation from the Central Bank and the

commercial banks. This was designed to provide guarantee cover to the banks for designated loans to small-scale enterprises. Furthermore, 10 per cent of total savings deposits of commercial banks were required to be invested in small loans under the credit guarantee scheme (CGS) of the CGC. In addition, the rate of interest which the banks levy on loans granted under the scheme was prescribed by the Central Bank, the rate being 8.5 per cent per annum at the end of 1978. Second and even more important, credit guidelines were issued both to the commercial banks and the finance companies in 1976. The bumiputra community, housing, manufacturing and agricultural food production (excluding plantation crops like palm oil and rubber) were specified as 'priority' sectors. Targets for each of these sectors were set as a given percentage of the increase in the loans and advances, including trade bills, made by the institutions concerned. In addition, maximum interest rates were also prescribed by the Central Bank for loans made to the above-mentioned sectors. This control was continued even after the freeing of the interest rates in October 1978.

Doubtless these measures represent interference with market forces. The resultant distribution of credit is not necessarily the optimum distribution for growth of the economy. Their purpose was redistribution, attained if necessary at the expense of slower growth.

STAGES OF FINANCIAL DEVELOPMENT IN MALAYSIA

As in any country, the Malaysian financial system plays a critical role in the nation's development process. At a most basic level, it links a country's savings and investments. Thus, an efficient financial structure is necessary for the mobilization of the country's savings and for channelling them into productive investment. In a relatively free and competitive market-oriented economy, both private- and public-sector financial intermediaries can be appropriate instruments for this purpose. The performance of the country's financial system depends on political as well as economic factors. For this reason, the government has to play an important role in promoting the development of financial instruments and institutions, and in ensuring that their benefits are equitably distributed.

Based on Goldsmith's framework (Goldsmith, 1969: 33-5), at least three basic types of financial structure can be distinguished as common characteristics in the financial structure of different countries (both private enterprise and in mixed economies) at different stages of financial development.

The first type, which identifies the early stage of financial development is characterized by (a) a low ratio of aggregate financial assets to national wealth—usually a value of from one-fifth to one-half; (b) predominance of claims over equity securities;¹ (c) a relatively low share of financial institutions in all financial assets outstanding; and (d) the prominence of commercial banks among financial institutions.

Stage Two is similar in that the financial interrelations ratio is low; claims exceed equity securities; and banks predominate among financial institutions. However there is a greater role for the government and for government financial institutions, reflecting a mixture of private and public enterprise within the economy.

Finally, Stage Three is characterized by (a) a higher value of the financial interrelations ratio, probably in the vicinity of unity—i.e. aggregate financial assets approximately equal to national wealth; (b) a higher ratio of equity securities to claims, even though claims may still account for over two-thirds of total financial assets; (c) a higher share of financial institutions in total financial assets; and (d) increased diversification among financial institutions, leading to a decline in the share of the banking system and a corresponding increase in the importance of thrift institutions and private and public insurance organizations.

However, since the historical transition of individual countries from one type of financial structure to another is gradual rather than abrupt, there are cases where not all characteristics point to the same type of structure.

Based on the above classification, Malaysia can be considered to have been in Stage One of the financial development during the 1960s, and in Stage Two while gradually progressing to Stage Three during the 1970s.

Specifically, as evident during the 1960s, the Malaysian economy was characterized by a low ratio of aggregate financial assets to Gross National Product (a proxy for national wealth), a value of one-half in 1960 increasing to unity by 1970. The predominance of claims over corporate stocks is indicated by the skewed distribution between them. On an average, of the total aggregate financial assets, the corporate stocks constituted only 0.5 per cent in the 1960s and 0.7 per cent in the 1970s (Table 13.1). Finally, the commercial banks constituted the largest financial intermediary in terms of their share of the assets in the financial system, which

¹ Claims include paper currency, cheque and savings deposits, accounts receivable and payable, consumer instalments credit, insurance policies, short- and long-term loans and business enterprises, and government bonds; whereas equity securities refer to corporate stocks.

TABLE 13.1
Financial Instruments Outstanding in Malaysia, 1960-1977¹

	Amount (£ million)		Distribution (%)				Financial Interrelation Ratio or Ratio of Financial Assets to GNP (%) ²				New Issues Ratio (net %)		
	1960	1970	1960	1970	1977	1960	1970	1977	1960	1970	1977	1960-70	1970-7
1. Money (Currency + Demand Deposits)	1,170.3	2,032.5	6127.4	34.6	16.7	14.1	19.2	17.5	19.9	6.7	25.1		
2. Savings Deposits ³	857.4	3,344.5	13251.7	23.3	27.6	30.4	14.0	28.8	42.9	26.37	37.0		
3. Provident & Pension Funds	593.8	2,600.8	6471.2	17.5	21.5	14.8	9.7	22.4	21.1	30.7	18.6		
4. Insurance Reserves Funds	125.1	321.8	960.2	5.7	2.7	2.2	2.1	2.7	3.1	14.3	24.8		
5. Development Finance Institutions Deposits	-	-	375.1	-	-	0.9	-	-	1.2	-	-		
6. Finance Companies Deposits	-	369.1	1979.6	-	3.0	4.5	-	3.2	6.4	-	54.5		
7. Other Financial Intermediaries/ Assets	-	12.9 ⁴	323.1	-	0.1	0.7	-	0.1	1.0	-	300.5		
8. Claims against Financial Institutions (1 through 7)	2746.6	8681.6	29,488.3	81.1	71.6	67.6	45.0	74.7	95.6	19.6	29.9		
9. Bank Loans	510.4	2359.6	9,557.8	15.1	19.5	21.9	8.4	20.3	31.0	32.9	38.1		
10. Insurance Companies Loans	-	83.1	204.2 ^p	-	0.7	0.5	-	0.7	0.7	-	18.2		
11. Development Finance Institutions Loans	2.9	85.4	384.5	0.08	0.7	0.9	0.05	0.7	1.2	238.6	43.7		
12. Other Financial Intermediaries Loans (Finance Companies & Merchant Banks)	-	256.5	2053.0	-	2.1	4.7	-	2.2	6.65	-	87.5		
13. Federal Government Securities excluding Treasury Bills (net new issues)	108.0 ^e	574.3	1781.5	3.2	4.7	4.1	1.8	4.9	5.8	59.25	26.3		
14. Claims against Non-Financial Sector (9 through 13)	621.3	3,358.9	13,981.0	18.4	27.7	32.1	10.25	28.9	45.3	40.0	39.5		
15. All Claims (8 + 14)	5,367.9	12,040.5	43,469.3	99.5	99.3	99.7	55.2	103.6	140.9	23.4	32.6		
16. Corporate Stocks (net new issues)	15.6 ⁴	76.3	119.8	0.5	0.7	0.3	0.26	0.6	0.4	35.37	7.1		

Source: Bank Negara, 1979.

¹The table is derived from Goldsmith, (1969), pp. 10-11.

²GNP at market prices is used as a proxy for national wealth and the figure in 1960 refers to Gross Domestic Product in Peninsular Malaysia only.

³Savings deposits include deposits at Commercial Bank, Central Bank, and the National Savings Bank.

⁴1961, ⁵1969.

^e = estimate, ^p = preliminary.

TABLE 13.2
Assets of Financial System in Malaysia, 1960-1977¹

	1960		As at end of:		1977		Per cent of Financial Assets to GNP ⁵			
	f m	%	f m	%	f m	%	%	%	%	%
1. BANKING SYSTEM										
a. Monetary institutions	2356	66.3	7,455	64.1	28127	71.1	38.6	64.2	91.2	
Central Bank	2346	66.0	6,882	59.2	23949	60.6	38.5	59.2	77.6	
Currency Board ²	184	5.2	2,227	19.2	7701	19.5	3.0	19.2	25.0	
Commercial Banks	930	26.2	195	1.7	55	0.1	15.2	1.7	0.2	
b. Non-monetary institutions	1232	34.7	4,460	38.4	16193	41.0	20.2	38.4	52.5	
Finance Companies	10	0.3	573	4.9	4178	10.5	0.2	4.9	13.5	
Merchant Banks	—	—	531	4.9	2610	6.6	0.2	4.6	8.5	
Discount Houses	—	—	...	...	913	2.3	—	—	3.0	
Credit Guarantee Corporation	—	—	42	0.4	649	1.6	—	0.4	2.1	
2. NON-BANKING FINANCIAL INTERMEDIARIES										
a. Provident, pension and insurance funds	1197	33.7	4167	35.9	11417	28.9	19.6	35.9	37.0	
Employees Provident Fund	836	23.5	3156	27.2	8161	20.6	13.7	27.2	26.5	
Other statutory & private provident & pension funds	633	17.8	2265	19.5	5843	14.8	10.4	19.5	18.9	
Life insurance funds	100	2.8	452	3.9	897	2.13	1.6	3.9	2.9	
General insurance funds	83c	2.3	324	2.8	960	2.4	1.4	2.8	3.1	
	20c	0.6	115	1.0	461	1.2	0.3	1.0	1.5	

TABLE 13.2 (continued)

b. Development finance institutions	1	....	113	1.1	892	2.3	0.02	1.1	2.9
Malaysian Industrial Development Finance	—		98	0.8	331	0.8	—	0.8	1.1
Agricultural Bank	—		10	0.1	440	1.1	—	0.1	1.4
Borneo Development Corporation	....		21	00.2	32	0.1	—	0.2	0.1
Sabah Credit Corporation	1	0.01	4	0.03	39	0.1	0.02	0.03	0.1
Development Bank of Malaysia	—		—		49	0.1	—	—	0.2
c. Savings institutions	267	7.5	645	5.5	1761	4.5	4.4	5.6	5.7
National Savings Bank/Post Office Svgs. Bank	157	4.4	296	2.5	905	2.3	2.6	2.5	2.9
Co-operative Societies ¹	110	3.1	349	3.0	856	2.2	1.8	3.0	2.8
d. Other financial intermediaries	93	2.7	233	2.1	603	1.5	1.5	2.0	2.0
Unit Trusts	—		13	0.1	65	0.02	—	0.1	0.02
Building Societies	93	2.7	203	0.1	445	1.1	1.5	1.7	1.4
Pilgrims Management and Fund Board	—		17	0.1	93	0.2	—	0.1	0.30
TOTAL	3553	100.0	11622	100.0	39544	100.0	58.3	100.04	128.2

Source: Bank Negara, 1979: 64, 426.

¹ Combined assets of individual institutions as at the end of the year.

² Malaysia's estimated share of assets of the Currency Board.

³ Include Bank Rakyat and Co-operative Central Bank.

⁴ Borneo Housing Mortgage Finance and Malaysia Building Society Berhad.

⁵ GNP at market prices is used as a proxy of national wealth.

e = estimate

increased from 34.7 per cent in 1960 to 38.4 per cent at the end of 1970 (Table 13.2).

In the 1970s, the predominance of claims over corporate stock and the pre-eminence of the commercial banks among financial institutions (with the banks' share of total financial assets increasing to 41 per cent at the end of 1977) still prevailed. Moreover, the Government's role in promoting the financial development of the country has been tremendous as evidenced by its direct involvement in financial institutions and programmes, its regulation and supervision of the assets and liabilities of the nation's financial system, through the Central Bank, and more recently, the lending guidelines issued to the commercial banks and finance companies.

Hence, during the 1970s, Malaysia can be considered to have entered Stage Two of financial development. Nevertheless, a movement towards the third stage had already been indicated by the high value of the financial interrelations ratio, which reached one and a half at the end of 1977, and by increased diversification of financial institutions. In addition, thrift institutions such as the National Savings Bank, finance companies and the Employees Provident Fund, had grown significantly, even though the share of the banking system had not declined in relative importance (Table 13.2).

ASPECTS OF MONETARY MANAGEMENT

A. Money Supply, GNP and the Price Level

In Malaysia, as elsewhere, there are three major determinants of supply of primary or reserve money. They are: (a) *Net lending to Government*. Central bank financing of a budget deficit increases the stock of primary money in the form of central bank liabilities. (b) *Changes in the balance of payments*. When foreign exchange receipts from export earnings or net capital inflow are sold to the central bank, they add to international reserves and thus increase the monetary base, and conversely for imports and capital outflow. (c) *Other changes in central bank assets*, such as open market operations or changes in the book value of foreign assets with changes in exchange rates. Money supply in the hands of the public (on a narrow definition) is largely determined by the effect of changes in the volume of bank credit on the stock of demand deposits in the hands of the public. On a wider definition, it may be taken to include near-money assets such as fixed and savings bank deposits.

In the 1960s, net borrowing by the Malaysian Government from the banking system was negligible. This was due mainly to the pru-

dent use of non-inflationary sources for Government capital and development expenditure, such as subscriptions to Government securities by the Employees Provident Fund, and public international long-term loans. The potential increases in the money supply resulting from the expansion of bank credit to the private sector and increases in the nation's international resources arising from balance of payments surpluses were partially offset by rapid increase in savings and fixed deposits. In addition, the money supply was from time to time affected by fortuitous events, such as the devaluation of sterling in 1967 and the currency split of the same year.

Thus, in the 1960s, despite significant political, economic and institutional changes, the money supply grew at a relatively stable rate and kept pace with the expanding economy, without creating significant price instability.

However, from 1972, and for the remainder of the 1970s, the money supply in Malaysia increased sharply. This was the result of various expansionary factors such as an exceptionally large increase in government development expenditure, financed by the monetary system, expansionary balance of payments effects deriving from favourable changes in Malaysia's terms of trade and increased international borrowings, and the termination of currency interchangeability with Singapore and Brunei in 1973, which resulted in a net increase of Malaysian currency to replace the stock of old currencies previously circulating in Malaysia.

In the 1970s, therefore, both the money supply and the price level rose faster than in the preceding decade. Nevertheless, despite moderately high inflation during this period, Malaysia was still considerably better off than most countries in the world in this respect.

To illustrate, in the 1960s, Malaysia experienced an accelerating real rate of growth in GNP while prices were kept relatively stable. The average nominal growth rate of GNP was 8.2 per cent. In real terms, it was 7.9 per cent, with an average annual increase of 0.9 per cent in consumer price index and an average increase of 6.7 per cent in money supply. The annual growth of currency circulation declined gradually as a result of the rapid development of banking, which increased private savings in fixed and current deposits. Although demand deposits grew in pace with the national development and income increases, there was even greater growth of fixed and savings deposits (Table 13.3). With such relative stability in the domestic economy, monetary policy was used mainly to nurture the growth of the financial and monetary system rather than for macro-economic stabilization.

In the 1970s, the average nominal growth rate of GNP increased

TABLE 13.3
Trends in the Growth of Money Supply, GNP and the
Price Level, 1960-1977

	1960	1970	1977	₹ million Annual Rate of Growth	
				1960-70	1970-7
1. Currency	682.1	1,000.2	3,112.3	4.2	26.4
+ Demand Deposits	488.2	1,032.3	3,015.1	10.1	24.0
= Money Supply (M1)	1,170.3	2,032.5	6,127.4	6.7	25.2
+ Savings & Fixed Deposits with the banking system	690.2	3,025.4	11,526.5	33.8	40.1
= Quasi Money or Private Sector Liquidity (M2)	1,860.5	5,057.9	17,653.9	17.2	35.5
+ Savings at National Savings Bank	159.9	275.9	869.6	7.6	30.7
= M3	2,017.4	5,333.8	18,523.5	16.4	35.3
+ Savings & Fixed Deposits with finance companies	—	369.1	1,979.6	—	62.3
= M4	3,017.4	5,702.9	20,503.1	18.3	37.0
Money Substitutes (M4-M1)	847.1	3,670.4	14,375.7	30.2	36.5
2. Nominal GNP	6,096.0	11,617.0	30,851.0	8.2	20.7
3. Consumer Price Index ¹	92.4	101.3	161.5	0.9	7.4
4. Deflated (real) GNP	6,108.2	11,467.9	19,102.8	7.9	8.3

Source: Bank Negara, 1979.

¹ 1967 = 100.

to 20.7 per cent. However, in real terms, it was only 8.3 per cent, since the average annual increase in the consumer price index had risen to 7.4 per cent.

During this period, in particular between 1971 and 1975, money supply (M1) and private liquidity (M2) expanded rapidly. Despite the rapid growth of money substitutes, the average annual growth of money supply rose in the 1970s to 25.2 per cent. Uncertainty generated by high inflation led to unusual growth in currency in

the hands of the public, which averaged 26.4 per cent per annum, compared to 4.2 per cent in the 1960s in nominal terms.

Thus, monetary policy was forced to resort to anti-inflationary measures. In 1973, recourse was made to the three major instruments. Interest rates on bank deposits and loans were progressively increased and so were the required liquidity ratios of commercial banks and the statutory reserves of the banks and finance companies. Supplementary measures in the form of moral suasion were applied to restrain the lending policies of banks and finance companies. Later credit ceilings were imposed both on commercial banks and on finance companies. Inflation was not halted, but it was dampened, as evidenced by the slackening of the rate of increase in prices and money supply. By 1975, the annual rate of increase in prices was down to 4.5 per cent, while money supply grew at 7.9 per cent, due in no small part to a recession in the economy.

Counter-cyclical monetary policies contributed partly to the slowdown in the growth of the economy. Recessionary tendencies observed in 1974 necessitated a change in monetary policy. However, as inflation was still prevalent, there was no possibility of adopting an all-out expansionary policy. Instead, the Central Bank cautiously relaxed some of the previously tight measures. For example, the credit ceilings imposed earlier in the year were raised to allow expansion in credit. In the following year, the relaxation of anti-inflationary measures continued with the reduction of lending and deposit rates and statutory reserve ratios and the elimination of credit ceilings. This policy continued in 1976, 1977 and 1978. In addition to reduction of interest rates, statutory reserves and liquidity ratios, other expansionary measures were also applied. These included provision of new credit facilities, such as arrangements to rediscount export bills on manufactured goods at preferential interest rates, a scheme to finance low-cost housing, increase in the ratio of risk assets (i.e. mainly credit) to capital funds and some relaxation in exchange control regulations. The economy picked up between 1976-8 and the annual average growth of real GNP rose from 7.3 per cent in the first half of the 1970s to 8.5 per cent between 1976-8.

B. Redistributive Measures

Since the imposition of the credit guidelines in 1976, the cumulative total of loans approved by the commercial banks was \$563.9 million up to the end of September 1978, compared with only \$11.8 million in 1973. Of the total amount approved, 47.4 per cent or \$267.2 million was outstanding at the end of September 1978, equivalent to 10 per cent of the total savings deposits of the com-

mercial banks, thereby fulfilling the Central Bank requirement (Bank Negara, 1979:70). However, loans under the CGS accounted for only 15 per cent of the total credit granted by commercial banks to small-scale enterprises, while bank credit granted to small borrowers was only 15.1 per cent of total outstanding-bank loans and advances at the end of September 1978.

As for the credit guidelines, by 1978 the target of a significantly larger share of the growth in credit for agricultural food production had yet to be fully realized. The main reasons are no doubt to be found in the problems inherent in the financing of agriculture generally (Lin, 1978:9). However, in so far as the commercial banks and finance companies have managed to meet the guidelines, loan capital would have been rechannelled from the economically optimum sectors to the socially and politically desirable sectors.

C. Effectiveness and Constraints of Monetary Policy

Of the three main instruments used for monetary policy, variation in the statutory reserve requirement has been deemed to be the most effective. Variations in liquidity requirements and interest rates are less so, because the demand for money is relatively interest-inelastic, whilst savings in the banking system as well as the demand for bank credit and private investment are insensitive to small changes in interest rates.

However, it is difficult to say how far monetary policy has contributed to macro-economic stabilization, since a complex of other forces can also influence the outcome. In Malaysia, as in most countries, the effectiveness of monetary policy is subject to certain constraints. Among these are:

(a) The existence of lags. The Central Bank has found that changes in monetary policy can take three to six months to begin affecting economic activity and that the cumulative impact is only felt within a year or so (Bank Negara, 1970: 353).

(b) Monetary policy needs to be co-ordinated effectively with fiscal policy. Such necessary coordination is not always present, as evidenced in 1973, when contractionary monetary policy was not adequately supported by timely parallel fiscal action to raise export taxes. Instead, since government spending is 'sticky' in general, the flow of new liquidity from government expenditure would offset monetary contraction.

(c) The existence of unorganized sectors (such as pawn shops, moneylenders, chettiers, etc.) which can exert some influences on the economy outside the control of the Central Bank.

(d) Two of the principal determinants of money supply, i.e., the

balance of payments and Government financing, are outside the control of the Central Bank.

(e) Money and capital markets are not effective in supporting monetary policy because of their relative immaturity.

(f) Conflicting goals, as in the case of stagflation in 1974 when monetary policy was aimed at curbing inflation while simultaneously encouraging investment.

CONCLUSION AND PROSPECTS

In retrospect, it can be safely concluded that the financial system of Malaysia has achieved marked progress since the transformation of its structure in the late 1950s. It has progressed remarkably well to fulfil its own difficult and sometimes self-contradictory role in the 1970s. Despite international monetary pressures, the external value of the Malaysian dollar and subsequently as the renamed ringgit, and the nation's foreign exchange position, have always been stable. In this respect Malaysia has done better than most of the developed countries, and better than nearly all the countries of the Third World.

In the 1980s, the country's monetary planners will be faced with four major inter-related economic requirements. First, at the international level, they will be expected to maintain the Malaysian ringgit as a strong and stable currency. Secondly, at the macro-level, they will be expected to institute well-timed counter-cyclical monetary policies and programmes that are in consonance with the country's overall national developmental policies. Thirdly, they will need to balance the funding priorities of the public and private sectors, and to minimize the potential crowding-out effects of financial instruments of the nation's increasingly competitive capital market. Finally, they must help ensure that the bumiputra community attains at least 30 per cent ownership of the nation's productive wealth and corporate assets by 1990, as a matter of national policy.

The Malaysian ringgit in the 1980s should continue to be a stable and strong currency *vis-à-vis* other countries. This is due mainly to Malaysia's continuing favourable balance of payments as a result of the existing and new high-valued export products, such as cocoa and manufacturing goods, and import substitutes, such as domestic oil and gas production. External reserves now amount to over \$10 billion, or approximately seven months' finance for retained imports. Before the end of the decade, however, they may be reduced if, as seems possible, the country has to import petroleum before the beginning of the 1990s.

Monetary policies may have to contend once more with imported inflation, which is expected because Malaysia's growing exports will continue to increase the already substantial external reserves, and this will then automatically be transmitted into the money supply. Moreover, Malaysia will probably become a net importer of the high-priced OPEC oil later in the 1980s and world-wide inflationary trends will necessarily mean higher prices for Malaysian imports, thereby increasing the country's domestic consumer prices.

In the 1970s, development of Government securities as a capital market instrument for long-term funding of the public sector expenditure had received special emphasis. On the other hand, development of an effective capital market for the private sector has been disappointing. In the 1980s, with the private sector's increasingly important role in national economic development, this shortcoming will need more attention. If new instruments are created, it will be necessary to ensure that they do not unduly compete for funds with the existing ones.

Government attempts to redistribute credit will continue as the commercial banks and finance companies move slowly but surely to fulfil the requirements of the credit guidelines in the 1980s. However to make this effective, the Central Bank will need to take into consideration the basic problems that some financial institutions face in complying with the requirements, and the diversity of characteristics found in the institutions concerned may require some flexibility in the rules imposed.

Malaysia could have insulated itself against imported inflation by an appreciation of the Malaysian ringgit. But such changes in the exchange rate are always politically difficult. They are liable to be opposed by domestic interest groups, such as producers of export commodities and import-competing manufacturers, who enjoy the short-run benefits of higher export and import prices, and who are usually better organized to press their case than those who suffer from imported inflation. The fact that smallholder rubber and oil palm producers, and labour-intensive manufacturing industries, would be amongst the first to be affected, is a further source of difficulty. In Malaysia, as in many other countries, there has also been considerable reluctance in official quarters to abandon the sheet anchor of fixed exchange rates.

At the end of the 1970s, there were already three new trends emerging which may improve the savings-investment process. These were, firstly, the introduction of more new instruments to assist in the development of the nation's secondary money and capital markets, secondly, an active role by the merchant banks in the development of the money and capital market, and thirdly,

greater market orientation in the determination of the financial system's interest rate regime.

The move towards greater market determination of interest rates was started by the abolition of the maximum interest rates on deposits of finance companies and commercial banks in 1973 and 1978 respectively. In 1978, the commercial banks were allowed to set their own prime lending rates, but they were required to maintain the preferential rate for loans extended to the Government and statutory authorities, and to observe the special rates and lending quotas for bumiputra individuals and bumiputra companies, and to priority sectors specified by the Central Bank.

The development of a more effective and sophisticated money and capital market with active secondary markets will add a new dimension to the other subsectors of the financial system. It will promote the growth of money substitutes and the activation of two relatively inactive monetary instruments, namely, the Central Bank's rediscounting facilities and its open market operations. This development will be important in the face of the unsettled economic conditions in the developed countries as well as the likelihood of 'imported inflation' and domestic excess demand-induced inflation.

Finally, the commercial banks are likely to continue to grow in numbers. In terms of quality of services, they are expected to become more professional, more competitive and more service-oriented in the 1980s, with the help of increasing automation and computerization. Domestic banks should hopefully branch out to the international scene as well. Together with the foreign banks, they are expected to be the catalyst in moving private investment (both domestic and foreign) and in the modernization of agriculture, given that government planning continues to place greater reliance on the private sector as the engine of growth. Furthermore, there will be a restructuring of the equity composition of the banks via mergers and foreign bank participation.

14 Public Finance

THE public sector in Malaysia includes the Federal government, thirteen state governments, numerous agencies, local authorities and municipalities. The sector is very centralized, the Federal government's revenue and expenditure alone accounting for more than 83 per cent of the consolidated public sector budget in 1980. Although each state government had its revenue system, state revenues were primarily of non-tax forms, apart from land tax, petroleum and mining royalties, entertainment duties and licence fees. The sole responsibility for raising revenue through income taxes, customs, export taxes, and sales taxes was placed on the Federal government by the Malaysian Constitution. Thus the role of the state governments in public finance is very limited. The discussion in this chapter is confined mainly to the fiscal operations of the Federal government for the period 1960-80.

At the end of the 1970s, Malaysia had one of the largest public sectors among the developing countries. However, as shown in Table 14.1, this is only a recent development. During the immediate post-colonial period 1957-60, the pattern of government expenditure was basically non-interventionist. Major economic activities were left to the private sector and the role of the public sector was confined to providing the infrastructure for the functioning of the economy. However, since 1960, the public sector's command of economic resources has increased rapidly. The proportion of public expenditure to Gross National Product increased rapidly, from 14 per cent in 1960 to 33 per cent in 1980, whilst the share of public revenue in GNP increased from 17 per cent to 25 per cent. In a 1971 study of 52 developing countries (Lotz and Moss, 1971), Malaysia was ranked fourth in terms of tax revenue as a share of GNP.

This chapter is divided into three sections: Section I examines the growth of public expenditure in Malaysia for the period 1960-80 and the factors which influenced this growth, as well as the expenditure trends during the 1980s. Section II then examines the

TABLE 14.1
Percentage of Revenue and Expenditure to GNP,
1960-1980

Year	GNP (\$m) (1)	Revenue (\$m) (2)	% 2 to 1 (3)	Total Public Expenditure (\$m) (4)	% 4 to 1 (5)
1960 ¹	6,649	1,069	16.97	937	14.09
1961 ¹	6,681	1,081	16.18	1,112	16.64
1962 ¹	7,048	1,097	15.56	1,318	18.70
1963	7,513	1,150	15.30	1,487	19.79
1964	7,952	1,458	18.34	1,882	23.67
1965	8,786	1,580	17.98	2,117	24.10
1966	9,457	1,669	17.65	2,264	23.94
1967	9,842	1,842	18.71	2,419	24.54
1968	10,325	1,893	18.33	2,407	23.31
1969	11,022	2,093	19.03	2,531	22.96
1970	12,155	2,400	19.74	2,876	23.66
1971	12,592	2,418	19.20	3,468	27.54
1972	13,842	2,920	21.09	4,291	31.00
1973	17,963	3,398	18.91	4,447	24.76
1974	21,861	4,788	21.90	6,169	28.21
1975	21,606	5,117	23.68	7,013	32.46
1976	27,033	6,157	22.77	8,162	30.19
1977	31,074	7,760	24.97	10,536	33.91
1978	35,090	8,841	25.20	11,740	33.50
1979	40,740	10,505	25.80	13,660	33.50
1980	51,184	12,870	25.10	16,998	33.20

Source: Malaysia, Ministry of Finance, *Economic Report*, 1973-4 and 1980-1.

¹ Refers to Peninsular Malaysia.

trends in the growth of tax revenue over the same period and suggests and discusses the factors that contributed to this growth. It also examines the trends in tax revenue and its changing composition in the 1980s. Section III evaluates the effects of fiscal operations on overall income distribution as well as on the ethnic and rural-urban income distributions.

THE GROWTH OF PUBLIC EXPENDITURE IN MALAYSIA, 1960-1980

Total Expenditure

Total public sector expenditures are classified into three main categories: current expenditure, development expenditure and net

lending. Between 1960-80, the fiscal operations of the Federal government were characterized by an increasing deficit due largely to current and development expenditures growing faster than current revenue. Table 14.2 summarizes the Federal government budgetary operations for the period. There was an overall surplus of \$132 million in 1960 and an overall deficit of \$31 million in 1961, but this deficit rose to \$3,686 million in 1979 and was expected to reach \$4,128 million in 1980. Federal government current expenditure grew at an average annual rate of 14 per cent between 1960 and 1980 while Federal revenue rose at the slower rate of 13 per cent. Federal development expenditure grew at an average annual rate of 19 per cent between 1960 and 1980.

Table 14.2 shows that, although current accounts showed surpluses for all years except 1972, they were inadequate to meet development expenditure. Hence the overall account was in deficit during the entire period 1961 to 1980. As a result, the national debt increased from \$184 million in 1960 to \$2,990 million in 1980. Throughout the 1960s and 1970s the financing of the overall deficit came largely from domestic borrowing and the drawing-down of savings, whilst the remainder was financed by external borrowing. However, a characteristic of the financing pattern during this period was the increasing use of external borrowing.¹ About one-quarter of aggregate Federal government borrowing for the period 1960-80 was financed by net external borrowing. By 1979, this amounted to nearly one-third of aggregate Federal government borrowing (Table 14.3).

On the other hand, the Federal government domestic borrowing was made mainly through the issue of government securities and Treasury bills. Over the entire period 1960-80, nearly three-quarters of total domestic borrowing by the Federal government were in these two forms (Bank Negara, 1979). These securities were mainly purchased by the provident and pension funds, the commercial banks and discount houses and by the National Savings Bank.

In 1960, current expenditure accounted for 85 per cent of total public expenditure. This declined to 70 per cent in 1979 and rose slightly to 71 per cent in 1980 (Table 14.4). The largest item of current expenditure was civil service salaries. Correspondingly, the relative importance of direct development expenditure and net lending (which is almost entirely for development) continued to increase. In 1960, the share of this was only 15 per cent; however in 1980 it is expected to increase to 29 per cent. However, 1960 was a particularly low expenditure year for development, for in

¹ External borrowing can be in the form of market loans or project loans.

TABLE 14.2
Federal Government Finance, 1960-1980
(\$ million)

Year	Current Account			Development Expenditure and Lending		Total Expenditure (F) F=B+D+E	Overall Deficit (G) G=A-B-D-E =A-F
	Revenue (A)	Current Expenditure ¹ (B)	Current Surplus/Deficit (C) C=A-B	Direct Expenditure (D)	Net Lending ² (E)		
1960 ³	1,069	796	273	119	22	937	132
1961 ³	1,081	847	234	208	57	1,112	-31
1962 ³	1,097	903	194	332	83	1,518	-221
1963 ³	1,150	1,032	118	360	95	1,487	-337
1964	1,458	1,387	71	413	82	1,882	-424
1965	1,580	1,540	40	509	68	2,117	-537
1966	1,669	1,619	80	547	98	2,264	-595
1967	1,842	1,801	41	519	99	2,419	-577
1968	1,893	1,796	97	496	115	2,407	-514
1969	2,093	1,930	163	504	97	2,531	-438
1970	2,400	2,161	239	565	150	2,876	-476
1971	2,418	2,398	20	754	316	3,468	-1,050
1972	2,920	3,068	-148	801	422	4,291	-1,371
1973	3,398	3,341	57	759	347	4,447	-1,049
1974	4,788	4,315	473	1,107	745	6,169	-1,381
1975	5,117	4,900	217	1,266	847	7,013	-1,896
1976	6,157	5,828	329	1,585	749	8,162	-2,005
1977	7,760	7,398	362	2,014	1,124	10,536	-2,776
1978	8,841	8,041	800	2,398	1,301	11,740	-2,889
1979	10,505	9,509	465	2,828	1,323	13,660	-3,686
1980	12,870	11,998	872	3,345	1,655	16,998	-4,128

Source: Malaysia, Ministry of Finance, *Economic Report*, 1975-4 and 1980-1.

¹ Including contributions to Sinking Fund as from 1975.

² Loans to state governments and public authorities.

³ Refers to Peninsular Malaysia.

TABLE 14.3
 Non-Revenue Sources of Federal Finance, 1960-1980
 (\$ million)

Year ¹	Sources of Finance Other Than Resource			
	Net Foreign Borrowing	Net Domestic Borrowing	Special Receipts ²	Change in Assets ³
1960 ⁴	25	159	0	-316
1961 ⁴	-14	125	0	-80
1962 ⁴	22	148	1	+50
1963 ⁴	11	210	2	+114
1964	-6	192	54	+184
1965	72	404	49	+12
1966	-10	287	77	+241
1967	83	349	41	+104
1968	63	428	37	-14
1969	155	379	24	-120
1970	-2	308	17	+153
1971	344	677	40	-11
1972	306	826	66	+173
1973	69	877	28	+75
1974	223	826	31	+301
1975	912	1,209	9	-234
1976	369	1,636	274	-274
1977	535	1,887	-265	+619
1978	541	1,165	n.a.	+1,193
1979	679	2,507	n.a.	+500
1980	945	2,045	n.a.	+1,138

Source: Malaysia, Ministry of Finance, *Economic Report*, 1973-4.

¹ Figures for 1960-3 refer to Peninsular Malaysia.

² For Federal Government these include foreign grants from consolidated revenue account.

³ '-' indicates a build-up in reserves.

⁴ Refers to Peninsular Malaysia.

1962 direct development expenditure had risen to 25.2 per cent and net lending to 6.3 per cent, making a total of 31.5 per cent. This total was not reached again until 1979, though it was closely approached during most of the 1970s. During the 1960s, however, the total proportion dropped somewhat, to a low point of 23.7 per cent in 1969. These trends are not, perhaps, themselves particularly important, but the consistently high proportion of development to total expenditure does sufficiently illustrate the strong emphasis placed by the government on public investment in support of the planned objectives.

We may divide our analysis into two time periods, the first period

TABLE 14.4
 Percentage Composition of Total Federal Expenditure,
 Malaysia, 1960-1980

<i>Year</i>	<i>Current Expenditure</i>	<i>Direct Development Expenditure</i>	<i>Net Lending</i>
1960 ¹	85.0	12.7	2.3
1961 ¹	76.2	18.7	5.1
1962 ¹	68.5	25.2	6.3
1963 ¹	69.4	24.2	6.4
1964	73.7	22.0	4.4
1965	72.7	24.0	3.2
1966	71.5	24.2	4.3
1967	74.4	21.4	4.1
1968	74.6	20.6	4.8
1969	76.2	19.9	3.8
1970	75.1	19.6	5.2
1971	69.1	21.7	9.1
1972	71.5	18.7	9.9
1973	75.1	17.1	7.8
1974	69.9	17.9	12.1
1975	69.9	18.0	12.1
1976	71.4	19.4	9.1
1977	70.2	19.1	10.6
1978	68.5	20.4	11.1
1979	69.6	20.7	9.6
1980	70.5	19.7	9.7

Source: Malaysia, Ministry of Finance, *Economic Report*, 1973-4 and 1980-1.

¹ Refers to Peninsular Malaysia.

covering the Second Malaya Plan and the First Malaysia Plan, 1960-70, and the second period covering the Second Malaysia Plan (SMP) and the Third Malaysia Plan (TMP) 1971-80. We shall examine the actual public expenditure achieved in relation to the planned expenditures and discuss the factors causing shortfalls in meeting the planned targets.

During 1961-70, the main objective of the public sector was to attain a high rate of economic growth. Thus the main targets of the public sector programmes were, in brief:

1. To increase food production. In 1961, Malaysia had to import nearly two-thirds of her staple foods, and this caused a major drain on her foreign reserves.

2. To diversify the economy so as to reduce her over-dependence on rubber and tin, the export earnings of which were subject to violent price fluctuations resulting in balance of payments problems.

3. To reduce the rapid rate of population increase and concomitantly to reduce poverty in the rural areas.

4. To reduce racial economic imbalance. However, this objective received little emphasis because it was felt that rapid economic growth would automatically solve this problem.

To achieve these targets, the Government allocated \$2.15 billion and \$4.55 billion of public expenditures for the Second Malaya Plan and the First Malaysia Plan respectively. Economic sectors received the major part, specifically, 69 per cent under the Second Malaya Plan and 60 per cent under the First Malaysia Plan (Table 14.5). Within the economic sector, agriculture received the largest allocations—25 per cent and 24 per cent of the total planned expenditures under the two Plans respectively. A substantial proportion of the agriculture expenditure was for basic infrastructure such as drainage and irrigation schemes. This programme achieved some success and by 1970 Malaysia produced nearly 81 per cent of its domestic rice requirement.

In addition, both rubber production and mining continued to expand. However, to reduce reliance on these two commodities, Malaysia diversified her economy by expanding oil palm production, timber extraction and by increasing light manufacturing and processing industries. For the period 1961-5, actual expenditure in the agriculture sector only achieved about 84 per cent of that originally planned but for the period 1966-70, planned expenditure was fully utilized (Table 14.6). The early shortfalls of actual expenditure compared with planned expenditure were primarily due to shortages in skilled manpower and to the failure to carry out feasibility studies, thus delaying implementation of some projects.

The transport and communication sectors together received allocations of about 20 per cent in the 1961-5 period and 16 per cent in the 1966-70 period. These were to provide basic infrastructure such as roads, railway services, airlines, etc. Actual expenditures for these sectors exceeded the planned expenditures.

In 1961-5, social services were allocated about 23 per cent of the planned development expenditure and its share was reduced somewhat to 21 per cent for 1966-70. Actual expenditure achieved only 96 per cent of that planned under the Second Malaya Plan and the rate of achievement was only 71 per cent under the First Malaysia Plan. Shortfalls occurred mainly in the educational sector where actual expenditure was only 59 per cent of the originally planned target under the First Malaysia Plan. This was attributed primarily to inter-ministerial problems such as poor coordination between the Ministry of Education and the Department of Public

TABLE 14.5
Malaysian Planned Development Expenditure

	<i>Second Malaya Plan 1961-1965</i>		<i>First Malaysia Plan 1966-1970</i>		<i>Second Malaysia Plan 1971-1975</i>		<i>Third Malaysia Plan 1976-1980</i>	
	(\$ bil.)	%	(\$ bil.)	%	(\$ bil.)	%	(\$ bil.)	%
1. <i>Economic</i>	1.48	68	2.76	60	4.87	67	12.67	68
Agriculture & Rural Development	0.55	25	1.09	24	1.92	26	4.74	26
Transport ¹	0.36	17	0.55	12	1.18	16	2.82	15
Communication	0.07	3	0.21	4	0.40	6	1.19	6
Commerce and Industry	0.03	1	0.12	3	0.58	8	1.73	9
Feasibility Studies	—	—	—	—	0.03	4	0.04	—
Public Utilities	0.47	22	0.79	17	0.75	10	2.14	12
2. <i>Social</i>	0.49	23	0.95	21	1.07	15	3.09	17
Education & Training	0.25	12	0.44	10	0.53	7	1.67	9
Health & Family Planning	0.13	6	0.19	4	0.21	3	0.38	2
Social & Community Services	0.11	5	0.32	7	0.32	5	1.04	6
3. <i>General Administration</i>	0.12	6	0.13	3	0.21	3	0.60	3
4. <i>Defence & Internal Security</i>	0.06	3	0.71	16	1.10	15	2.20	12
Total	2.15	100	4.55	100	7.35	100	18.56	100

Sources: Malaysia, 1965, 1971, 1976b.

¹Includes P.W.D. plant and equipment.

TABLE 14.6
Actual Malaysian Plan Development Expenditure

	<i>Second Malaya Plan 1961-1965</i>		<i>First Malaysia Plan 1966-1970</i>		<i>Second Malaysia Plan 1971-1975</i>		<i>Third Malaysia Plan 1976-1980</i>	
	(\$ bil.)	%	(\$ bil.)	%	(\$ bil.)	%	(\$ bil.)	%
1. <i>Economic</i>	1.50	59	2.71	64	4.96	67	13.57	64
Agriculture & Rural Development	0.46	18	1.10	26	1.79	24	4.67	22
Transport	0.50	20	0.53	13	1.23	17	2.84	13
Communication	0.15	6	0.09	4	0.17	2	1.15	5
Commerce and Industry	0.06	2	0.25	6	1.43	19	3.25	15
Feasibility Studies	—	—	—	—	0.03	0.4	0.06	0.3
Public Utilities	0.33	13	0.64	15	0.30	4	1.58	8
2. <i>Social</i>	0.47	19	0.67	16	1.29	17	3.64	17
Education & Training	0.28	12	0.26	6	0.70	9	1.55	7
Health & Family Planning	0.13	5	0.14	3	0.18	2	0.31	2
Social & Community Services	0.06	2	0.27	7	0.41	6	1.78	8
3. <i>General Administration</i>	0.16	6	0.14	3	0.15	2	0.47	2
4. <i>Defense & Security</i>	0.41	16	0.69	17	1.02	14	3.53	17
Total	2.54	100	4.21	100	7.42	100	21.20	100

Sources: Malaysia, 1971, 1976b, 1981.

Works in processing the construction of infrastructure. In addition, there was some shortage of technical and trained personnel and some delay in securing loans from the World Bank to finance some of the projects.

Shortfall also occurred in the provision of public health services in 1966-70, for which actual expenditure was only about 73.6 per cent of the planned target. This was partly due to the lack of co-ordination between the Ministry of Health and the state governments, especially in securing land for the construction of local health centres. Expenditure on social and community services including housing was allocated \$430 million for the period 1961-70, but actual expenditure was only 76 per cent of the planned target. Low cost housing was neglected during this period, and only towards the end of the decade did it begin to receive some attention.

Thus on the whole, actual public expenditure in the basic sectors were unable to meet the originally planned expenditure during the period 1961-70 due mainly to bottlenecks and poor coordination. In contrast, actual expenditure for general administration exceeded its planned expenditure during that period by 20 per cent. This was due mainly to the establishment of various committees and to staff increases at the federal, state and district levels to plan, co-ordinate and implement the programmes proposed in the two development plans.

Development expenditure on national defence and internal security for the period 1961-5 was planned at \$66 million. However, actual expenditure was more than six times that at \$410 million. The major increase was for the period 1963-5 to finance the purchase of weapons and equipment to combat external aggression from Indonesia. For the period 1966-70, these sectors were allocated about \$710 million or 16 per cent of the development expenditure, 97 per cent of which was actually spent.

The decade following the New Economic Policy, 1971-1980. During the 1960s, Malaysia's Gross Domestic Product increased at 6.8 per cent per annum in real terms and per capita income increased at an estimated 3.5 per cent per annum. As the country had disproportionately large agriculture and mining sectors, whose products commanded either constant or declining prices, the Malaysian annual rate of growth for the period 1960-70 was quite remarkable. However, despite this favourable economic growth, the wealth was unequally distributed. In Malaysia this problem was the more acute because it was associated with ethnic divisions of the population, an aspect that became more urgent after the racial riots in 1969. The riots were partly attributed to the failure of the economic

programmes to eliminate economic disparity and the tensions it engendered. This led to the formulation of the New Economic Policy, which increased public expenditures significantly to redress the problems of income disparities.

Total public expenditure planned was \$7.25 billion under the Second Malaysia Plan and \$18.56 billion under the Third Malaysia Plan. On the whole, actual expenditure kept up well with the planned targets under the SMP and TMP.

Current Expenditure

Current expenditure continued to increase slightly in relative importance from 69.1 per cent of the total expenditure in 1971 to 69.6 per cent in 1979 and 70.5 per cent in 1980. In absolute terms, current expenditure continued to increase from \$2,398 million in 1971 to \$8,041 million in 1978. In 1979, this expenditure increased by 18.3 per cent to \$9,509 million and increased further to \$11,998 million in 1980 (Table 14.2). Thus during the 1970s, the average annual growth of current expenditure was nearly 19 per cent compared to 10.5 per cent in the 1960s. Large increases in current expenditure were made possible partly by the good performance of the export sector during the period. One large increase, in 1972, was associated with the upward revision of government salaries. Another dramatic increase of 27 per cent in 1977 was related to the further salary revisions implemented in that year.

Nevertheless, total revenue continued to show surpluses over current expenditures throughout the 1970s, except for 1972, when there was a deficit of \$148 million (Table 14.2). One striking feature of this trend was that annual surpluses of public revenue over current expenditure increased further during 1976-80, exceeding \$300 million in each year, due mainly to favourable commodity prices and the resultant increase in export duties and income tax revenues.

Development Expenditure

During the 1970s development expenditure continued to increase, averaging 22 per cent compared to 16.8 per cent for the 1960s. Actual development expenditure for the TMP period, 1976-80, was \$21.2 billion, which was 14 per cent above the planned allocations. This was because towards the end of the TMP period, the Government revised its allocation in order to complete all planned projects in hand.

Under both the SMP and the TMP, the economic sector continued to receive the greatest emphasis. In 1971-5, the economic sector received roughly 67 per cent of the total development allocation. For 1976-80 it took 68 per cent. On the other hand, the social

sector received only 15 per cent and 17 per cent of the development expenditure under the SMP and TMP respectively. In comparison, national defence was allocated 10 per cent and 12 per cent, and administration 4 per cent and 3 per cent under the two Plans respectively (Table 14.5).

Within the economic sector, agriculture and rural development utilized approximately 93 per cent of the planned allocation under the SMP, and 98 per cent under the TMP.

For transport and communications the actual expenditure planned was achieved in the 1970s. Except for the East-West highway, the major highways proposed had either been completed or were progressing as scheduled. In addition, there was an extension in railway service in Sabah during the same period.

In contrast, the industrial sector utilized nearly one and a half times its planned allocation under SMP. Under TMP actual expenditure exceeded the planned target by about 50 per cent. This sector was given substantial supplementary development expenditure during the latter half of both planned periods, especially meeting the needs of public corporations for loans and also the substantial new government investment in banking. Loans were extended to UDA, MARA, SEDC, MISC and PERNAS, Bank Rakyat and the LNG project in Sarawak. Government support to these enterprises was designed to increase Bumiputra participation in commerce and industry, as part of the New Economic Policy.

Social development expenditure for the 1970s amounted to about \$4.93 billion. For both the SMP and TMP periods, actual expenditure exceeded the planned target by about 20 per cent. This expenditure financed the construction and expansion of new universities, the MARA Institute of Technology, polytechnics and secondary, primary and vocational schools. The construction and expansion of infrastructure absorbed about 50 per cent of the development expenditure allocated for social services. The remainder was utilized for the public health service, family planning and for low cost housing.

The enlargement of the government administrative machinery in the 1970s led to an increase in expenditure on administration. However, emphasis on administrative improvements began mainly in 1975, especially in public organizations such as the State Economic Development Corporations where inefficiencies of administration had been commonly alleged. It is to be expected that expenditure on public administration will continue to rise in the 1980s as further re-organization takes place, and as the wider use of computer technology produces an increased requirement for skilled manpower.

National defence was allocated \$1.10 billion under the SMP,

and \$2.2 billion under TMP. Approximately 92 per cent of the planned target was achieved under the SMP and under the TMP actual expenditure well exceeded the plan allocation. A large proportion of this was for the purchase of military equipment to meet the needs created by the expansion of the security forces. During this period, roughly 70 per cent of the total development expenditure allocated to national defence went to the armed forces, and the balance went to the police and other civil security purposes.

Factors Underlying the Growth of Expenditure in the 1960s and 1970s, and the Prospect for the 1980s

Increase per capita. In dealing with the growth of public expenditure, the high income per capita, seen in historical context, is associated with a movement from an agricultural low income stage towards an industrial high income stage. It would be surprising if, in the course of this development, the demand for social goods had an income elasticity of zero. We have seen that during the 1960s and 1970s, the supply of social goods has indeed increased considerably. However, there is still a particular need for new overhead capital such as roads, hospitals, water and power supplies, and many of these do not lend themselves to private provision. Hence the public share in the provision of capital goods may be expected to continue to grow during the 1980s and 1990s, as the process of economic development continues.

In addition, as industrialization expands, it will generate problems of its own such as congestion, rural-urban migration, squatter problems, etc., and these call for a rising level of public investment. Such investment would be partly of a remedial sort, aimed at meeting social diseconomies generated by the private sector. There will also be a need for supportive investment in urban housing and services. Moreover, as incomes rise, an increasing amount of public investment will have to be directed towards human investment, and the financing of education in Malaysia has been primarily a public function. Over time, the *quality* of public expenditure must improve as the demand becomes more sophisticated.

Population change. Population change will also be a major determinant of the public expenditure share in Malaysia. At the end of the 1970s Malaysia had a relatively large young population. This is reflected in high school enrolment, thus placing a major burden on the public sector in the growth of public expenditure on primary and secondary education. This trend may be expected to continue in the 1980s, at least.

If the population trends of the late 1970s continue, educational needs will move towards tertiary levels and will eventually give way to housing needs, to larger pension bills, etc., as the population moves up further in the age scale. One major fiscal problem after a further twenty or thirty years may well be providing support for the aged. In addition, the need for public services will be influenced by such factors as increased rural-urban migration, which is already increasing the demand for municipal facilities.

Transfer and subsidy. While transfers and subsidies were of relatively small importance in the early 1960s, they have become more significant in the 1970s. Initially, transfers and subsidies were not viewed as instruments of income redistribution, but rather as a means of encouraging farmers to expand their production and to use modern techniques. However, in the 1970s, it has taken a new dimension and has become an important instrument for reducing poverty within the agricultural sector. Moreover, the distributional measures in the 1970s were not confined to transfers and subsidies alone, but to provision of social goods and services. There are reasons to expect that the role of redistributive measures, including transfers and subsidies, may increase in the 1980s and 1990s, for there appears to be a greater need and more scope for redistribution, given modern society's view on the desirability of greater equality.

A further change in the scope of redistribution has resulted from the ethnic factor. The disparity in the distribution of income by ethnic group has called for greater public assistance to the Bumiputra sector. Evidence is not clear as to how far this restructuring objective had been achieved by the end of the 1970s. However, indications are that the performance has fallen well short of the expected target in some important aspects. If this is so, political forces in the 1980s may necessitate greater government intervention in this aspect, and an even greater share of public expenditure on the expansion and establishment of public corporations and enterprises.

GROWTH AND COMPOSITIONAL PATTERNS OF TAX STRUCTURE

Table 14.7 presents the ratios of tax revenue to GNP for the period 1960-80. The ratio of total tax revenue to GNP declined from 13 per cent in 1960 to 12 per cent in 1963, thereafter the ratio began to increase steadily and by 1980 it rose to 24 per cent. Table 14.7 also shows the tax to GNP ratios for the major components of the Malaysian tax structure.

TABLE 14.7
Malaysia: Ratio of Taxes to GNP, 1960-1980
(percentage)

Year	Total Revenue	Total Tax	Direct Taxes	Indirect taxes			
				Total ²	Excise Taxes	Export Taxes	Import Taxes
1960 ¹	16.08	13.28	2.87	10.41	0.12	3.91	5.43
1961 ¹	16.18	13.08	3.53	9.55	0.12	2.87	5.48
1962 ¹	15.56	12.49	3.45	9.04	0.13	2.51	5.29
1963 ¹	15.31	12.17	3.19	8.98	0.49	2.42	5.16
1964 ¹	18.34	13.18	3.22	9.97	1.12	2.52	5.76
1965	17.98	13.75	3.73	10.02	1.16	2.74	5.68
1966	17.65	14.20	4.13	10.07	1.42	2.36	5.45
1967	18.72	14.96	4.69	10.25	1.53	1.98	6.28
1968	18.33	14.33	4.72	10.16	1.60	1.91	6.44
1969	18.99	15.70	4.89	10.81	1.65	2.53	6.42
1970	19.74	16.45	5.77	10.69	2.05	2.12	4.58
1971	19.20	16.53	5.66	10.86	2.44	1.83	4.62
1972	21.10	17.30	5.79	11.51	2.64	1.68	4.26
1973	18.93	16.95	5.51	12.00	2.27	2.43	4.15
1974	21.90	19.90	6.33	13.39	2.02	4.31	4.08
1975	23.68	21.18	9.35	11.83	2.08	2.89	3.71
1976	22.78	20.31	8.02	12.30	2.03	3.74	3.62
1977	24.97	22.75	9.48	13.27	2.24	4.47	3.67
1978	25.30	22.91	9.51	13.40	2.41	4.19	3.79
1979	24.54	22.21	9.08	13.13	2.24	4.53	3.53
1980	26.05	24.13	11.06	13.07	2.01	5.37	3.21

Source: Malaysia, Ministry of Finance, *Economic Report, 1975-4 and 1980-1*.

¹ Refers to Peninsular Malaysia only.

² Totals do not add because indirect taxes other than excise, export and import taxes are included in this column.

Throughout the 1960s and 1970s, the ratio of indirect taxes (defined to include export taxes, import taxes, excise and sales tax and a number of other minor taxes) to GNP increased moderately in relative importance. However, indirect taxes were subject to substantial fluctuations from year to year and the fluctuations were particularly noticeable with the export taxes. Direct taxes as a ratio to GNP grew very considerably in importance over the period 1960-80.

One of the major factors producing this pattern in Malaysia was the openness of the economy. This is evident from Table 14.7. The ratio of indirect taxes to GNP fluctuated substantially, due primarily to fluctuations in the export and import taxes. However, in the 1970s there had been a reduction in the dependence of the economy on the external sector. Correspondingly the relative importance of indirect taxes in the total tax structure decreased. In the early 1960s, indirect taxes contributed about 70 per cent to 75 per cent of the total tax revenue. However, by 1980 its share in the total tax revenue had fallen to roughly 54 per cent, whereas the share of direct taxes had risen from 22 per cent to 46 per cent. Several factors help to explain these changing patterns:

1. The Government's moves to diversify the economy and thus to reduce the country's over-dependence on the two primary export commodities, rubber and tin, had been successful. Consequently the relative contribution of indirect taxes on these commodities declined.

2. Government emphasis on import substitution in the 1960s similarly reduced the importance of import taxes, while increasing the importance of excise taxes in the total tax revenue.

3. The rapid growth of direct taxation in the 1970s resulted in an improvement in the tax administrative machinery, producing expansion of the tax base with the discovery of new tax sources. There were also upward adjustments in the rate structures of individual and company income taxes.

Next we shall examine the composition of the Malaysian tax structure during the period 1960-80.

Direct Taxes

The contribution of direct taxation to total tax revenue was quite small in the early 1960s (see Table 14.8). However, its relative importance steadily increased over the twenty-year period. In 1960, its share in total tax revenue was about 21 per cent and this increased to about 45 per cent by 1980. During the later 1970s petroleum income tax was the major factor in this increase. By far the largest components of direct tax are individual, company and

TABLE 14.8
Absolute and Relative Composition of Direct Taxes, 1960-1980
(\$ million)

Year	Total Tax Revenue	Total Direct Tax	Income Tax				Other Direct Tax ¹
			Total	Individuals	Company	Petroleum	
1960 ²	883	191	186	46	140	-	5
1961 ²	874	236	232	60	172	-	4
1962 ²	880	243	237	56	181	-	6
1963 ²	914	240	234	58	176	-	6
1964	1,048	256	248	77	171	-	8
1965	1,208	328	302	91	211	-	26
1966	1,343	391	360	108	252	-	31
1967	1,472	462	426	128	298	-	36
1968	1,536	487	452	136	316	-	35
1969	1,730	539	500	150	350	-	39
1970	2,000	701	657	168	487	-	44
1971	2,081	713	689	188	515	4	24
1972	2,394	801	741	182	559	-	60
1973	3,045	990	838	218	593	27	152
1974	4,311	1,384	1,305	355	723	144	79
1975	4,576	2,021	1,926	438	1,166	322	95
1976	5,491	2,167	2,066	574	1,170	332	101
1977	7,070	2,946	2,791	679	1,336	776	155
1978	8,007	3,323	3,161	771	1,619	771	161
1979	9,509	3,888	3,674	1,128	1,717	829	212
1980	11,923	5,466	5,121	1,250	2,276	1,595	295

Source: Malaysia, Ministry of Finance, *Economic Report*, 1973-4 and 1980-1.

¹Including petroleum royalties.

²All figures for 1960-3 refer to Peninsular Malaysia.

(recently) petroleum income taxes. Although for the period 1960–80 direct taxes increased rapidly, this increase was not without interruptions. The variability in direct tax revenue was to a great extent due to the fluctuations in the company income tax. Since company income tax was mostly derived from the rubber and tin industries, which were subject to strong external influences, the revenue received from these taxes fluctuated from year to year. On the other hand, revenue from the individual income tax showed less fluctuation. One interesting feature of the Malaysian tax structure has been that the share of individual income tax in total direct tax showed a decreasing trend, with moderate fluctuation. This was essentially due to the contribution of the so-called petroleum income tax, which by 1979 exceeded the revenue from individual income tax. It is to be expected that at least for most of the 1980s income tax from petroleum will continue to increase. However, petroleum production is expected to decline in the late 1980s, and its tax contribution will decline also, although new taxes on LNG may compensate for this.

The fluctuations in revenue from company tax moderated somewhat in the 1970s. This was partly due to an increase in the number of locally owned companies and a corresponding decline in the number of foreign companies operating in the country as more of the latter were restructured. The locally owned companies are largely in manufacturing and are less affected by external conditions than foreign companies, whose close relationship to rubber and tin made them particularly susceptible to the cyclical patterns of the external economy.

The contribution of other direct taxes, including estate and gift taxes, royalties on petroleum, etc., to the total tax revenue remains small.

Indirect Taxes

Export taxes. Since Malaysia is an export oriented economy, export taxation has long been a significant source of revenue. In 1960, it contributed nearly 30 per cent to total tax revenue. However, over the years its relative importance has declined and by 1980 it accounted for only about 17 per cent of tax revenue. Since exports are subject to sharp fluctuations, so are revenues from export taxes. The significant decline in export tax revenue in the 1960s was due mainly to a fall in the relative and absolute contribution of the rubber export taxes. Though export revenue from tin increased somewhat, it was not sufficient to offset the fall in revenue from rubber (see Ismail, 1978b for further discussion).

A feature of Malaysian export tax revenue has been its heavy dependence on rubber and tin. Any change affecting the demand for these products caused large changes in export tax revenue. However, this has been mitigated somewhat during the 1970s with the increasing diversification of Malaysian exports. From 1968, timber and palm oil began to be important in Malaysian exports, and these commodities have proved less subject to fluctuations in external demand. Moreover, with the continued increase in the world prices of petroleum, and the world shortage of tin, we can also expect that for the 1980s at least revenue from export taxes should not fall and may even show some increase. For example, an export duty on petroleum was introduced in 1980.

Apart from their value as a source of revenue, the Government has also used export taxes to regulate the production of export commodities. Thus high rates were imposed on exports of unprocessed timber and palm oil, and lower rates for the processed goods, thus providing incentive for the products to be processed locally.

Import taxes. Import taxes are one of the principal sources of revenue in the Malaysian tax structure. During the 1960s and 1970s, revenue from import taxes increased every year except for 1975. A significant feature of the import tax has been that, despite the steady increase in its absolute value, its relative importance as a share of total tax revenue declined considerably over this period. In the early 1960s, it contributed slightly over 40 per cent of total tax revenue, but this had declined to about 14 per cent by 1980. A major portion of the revenue from import taxes came from three categories of products: petroleum, alcohol and tobacco. The relative importance of petroleum and tobacco as sources of import tax revenue has been declining since 1960. This is partly due to import substitution. Production of these products has been encouraged by the combination of protective tariffs and investment allowances (Ismail, 1978b). However, since excise taxes have been imposed on locally produced petroleum and tobacco, this has helped to offset the revenue lost through the reduction in import taxes.

During the late 1970s there has been a steady increase in the relative importance of import taxes on commodities other than alcoholic beverages, petroleum and tobacco. Three categories of such commodities are significant: processed foods, consumer durables, and luxury goods. Both extension of coverage and expansion of demand have increased the relative importance of these commodities as sources of import tax revenue.

Excise taxes. As a source of revenue, excise taxes have been less important than import taxes. During the early 1960s revenue from

excise was less than 1 per cent of total tax revenue. However, since 1963 there has been a steady increase in its relative share in total tax revenue, accounting for about 10 per cent by 1980. This increase was mainly due to the expansion of manufacturing in the country. Excise taxes were mainly imposed on locally grown tobacco, locally manufactured liquor, refined petroleum and heavy oils, locally refined sugar¹ and certain other locally produced consumer goods and light machinery.

The period 1960-80 witnessed a steady decline in the relative significance of import duties as a source of tax revenue. On the other hand, the trend in revenue from excise taxes was upwards. Three factors may account for this:

First, since 1960, the Government's import substitution policy had led to a steady growth in the number of new consumer goods industries. These industries provided a new source of excise revenue, thus broadening the tax base. Secondly, over this period, there had been several adjustments of the excise tax rates on these commodities which also resulted in an increase in excise tax revenue. Thirdly, the demand elasticity for these products was low, so that the revenue produced by the tax was considerable.

Sales tax. Sales tax was introduced in Malaysia in 1972 to meet revenue needs. It was a single-stage tax applied to the sale of domestically manufactured goods and imported goods and services. Since the tax was designed as a single-stage tax, it was only applied to final goods and services. Firms with gross annual sales below \$12,000 were also exempted. Other exemptions were products produced by firms with pioneer status, goods purchased by government agencies, cooperatives and trade unions, and goods traded between Peninsular Malaysia, Sarawak and Sabah.

Since many goods were exempted, the tax base was quite narrow. Exemption of goods produced by firms with pioneer status could not be justified from either the equity or the resource allocation viewpoint. This exemption was equivalent to giving firms with pioneer status an *ad valorem* subsidy on their outputs, and giving them more advantages in competing with non-pioneer firms. Further, firms with pioneer status had already been given other investment subsidies in the form of investment allowances and tax holidays.

In 1972, revenue collected from sales tax amounted to \$115 million and by 1980 it had increased to about \$594 million. It can

¹ Revenue from import duty on sugar showed an increasing trend in the 1960s, but it was a burden on low income households and the duty was removed in 1971.

be expected that in the 1980s and 1990s sales tax would continue to increase in its relative importance. As the economy develops, and the tax administrative machinery gains experience, the tax base of this tax should grow correspondingly.

There were also other taxes collected in Malaysia, and among the more important ones were road tax, gambling taxes, and stamp duties. Of these, motor vehicle and road taxes may be expected to increase further in the 1980s and 1990s.

Having analysed how different taxes contributed to the growth and patterns of the total tax revenue in Malaysia for the period 1960-80, it would be interesting to find out which taxes are progressive, proportional or regressive, and this will also give us some idea about the impact of taxation on the distribution of income. The effects of fiscal operations on the distribution of income are discussed in the following section.

DISTRIBUTIONAL IMPLICATIONS OF FISCAL OPERATIONS

Studies of income distribution in Peninsular Malaysia show that inequality has been increasing, at least up to the mid-1970s. Such a trend is widely accepted to be detrimental to the country's development. As mentioned earlier, this problem is exacerbated in Peninsular Malaysia by the fact that income inequality has been closely related to ethnic division. In the late 1960s and in the 1970s, the Government has become increasingly aware of this problem and has taken various measures to redress it. One instrument used was the fiscal system. In this section we shall examine and evaluate the extent to which taxation and public expenditure were able to contribute to the re-distribution objective.

Intertemporal Distribution of Tax Burdens in Peninsular Malaysia

Table 14.9 presents the distribution pattern of tax burdens in Peninsular Malaysia for the years 1968, 1970 and 1973. It must be admitted that there are numerous difficulties and deficiencies in such intertemporal comparisons. However, despite this, they may provide some indication of how tax policy has changed over time. In addition, they may help to appraise the extent to which tax policy has redistributed income.

The average effective rate (i.e. the tax to income ratios) for all taxation in Peninsular Malaysia had increased from 29 per cent in 1968 to 32 per cent in 1970, and to 39 per cent in 1973. Thus an increasing proportion of household income had been absorbed by

TABLE 14.9

Estimated Distribution of Tax Burdens of Income Groups: Peninsular Malaysia, 1968, 1970 and 1973
(Taxes as a Per Cent of Household Income Under Benchmark Assumptions)

<i>Taxes</i>	<i>Annual Income Range (\$)</i>										<i>Total</i>
	<i>Below 1,200</i>	<i>1,200- 1,800</i>	<i>1,800- 2,400</i>	<i>2,400- 3,600</i>	<i>3,600- 4,800</i>	<i>4,800- 6,000</i>	<i>6,000- 7,200</i>	<i>7,200- 8,400</i>	<i>8,400- 12,000</i>	<i>Above 12,000</i>	
1. Total Direct Taxes:											
1968	10.90	6.95		7.73		7.46			10.75	23.04	10.33
1970	10.23	13.03	11.12	7.84	9.08	11.33	10.47	10.46	12.42	18.71	12.37
1973	14.63	18.86	13.58	8.38	8.15	8.86	9.59	9.16	10.86	17.85	12.55
2. Total Export Duties:											
1968	3.42	0.69		0.74		0.50			0.54	13.78	2.83
1970	2.05	1.88	1.57	0.91	1.25	1.57				8.72	3.08
1973	5.69	5.24	3.71	1.89	2.25	2.40				8.03	3.74
3. Total Sales Tax:											
1973	3.42	2.86	2.68	2.55	2.34	2.38	2.32	2.39	2.22	1.43	2.21
4. Total Excises and Import Duties:											
1968	27.39	10.64		15.01		17.64			21.02	17.53	16.59
1970	21.16	16.38	17.68	18.62	19.51	22.78	20.02	20.90	19.59	11.41	17.29
1973	29.73	23.75	21.96	20.70	19.22	19.37	20.04	20.43	19.34	12.29	18.51

TABLE 14.9 (continued)

Taxes	Annual Income Range (\$)										
	Below 1,200	1,200- 1,800	1,800- 2,400	2,400- 3,600	3,600- 4,800	4,800- 6,000	6,000- 7,200	7,200- 8,400	8,400 12,000	Above 12,000	Total
5. Total All Taxes:											
1968	41.71	18.28		22.48		25.60			32.31	54.55	29.75
1970	33.44	31.29	30.37	27.37	29.94	35.68	30.49	31.36	32.01	38.84	32.73
1973	53.47	50.71	41.93	33.52	31.95	33.01	33.93	31.98	32.43	39.58	37.00
6. Total All Taxes Exclusive of Social Security and Payroll Taxes:											
1968	34.39	12.83		18.18		21.47			27.74	52.96	25.62
1970	26.70	21.21	22.57	23.15	25.18	29.92	25.33	26.89	27.87	37.77	28.21
1973	43.63	35.93	32.24	28.19	27.55	28.38	21.15	27.97	28.71	38.55	32.39

Sources: The original revenue figures for Peninsular Malaysia are supplied by the Ministry of Finance, Malaysia.

For the sources of data on income distribution and methods of calculation, see Ismail (1977).

Note: Annual Income range for 1968

Below 900	900- 1,800	1,800- 3,600	3,600- 6,000	6,000- 12,000	Above 12,000	Total
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the Government via taxation during this period. This increase in the average effective rates reflects both the upward adjustments of the tax structure, and the imposition of new taxes over this period. In addition, a higher ratio could also have resulted from an improvement in the machinery of tax collection and effective expansion of the tax base. An interesting feature of Table 14.9 is that the effective tax rates exhibit a U-shaped pattern. For 1968, the overall rates schedule appears to be regressive only when moving from the first to the second income bracket and becomes smoothly progressive thereafter. However, the overall effective rates for 1970 and 1973 show regressivity over a considerable range at the lower end of the income scale, with progression appearing much earlier in 1970 than in 1973. Throughout these three periods, tax burdens in Peninsular Malaysia continued to be distributed much more regressively than has been commonly believed, and have especially affected households in the lower income brackets. On the other hand, the tax burden on the higher income groups declined. Regressivity at the lower end of the income scale is due primarily to the effect of Employees Provident Fund contributions,¹ export duties and most of the indirect taxes. The progressivity at the upper end of the income scale is mainly due to the burden of the tin export duties and the mildly progressive structure of the personal income tax.

Taking each of the major groups of taxes separately, the following generalizations can be made:

1. The average proportion of households' income absorbed by the Government through direct taxes, export duties and indirect taxes continued to increase over this period.

2. For export duties, the increase in the average effective rates was due partly to increased revenue from rubber export surcharge. In addition, export duties on timber and palm oil, which were introduced in 1967, contributed a large share.

3. Since there were no substantial adjustments in the rates structure of the individual income tax or the corporation income tax during these periods, the increase in average effective rates of direct taxes was perhaps attributable primarily to the improvement of the administrative tax apparatus, together with the effects of inflation. Furthermore over these periods, Malaysia experienced an unprecedented rate of inflation and many households consequently entered higher income brackets, thus paying a greater share of their income in taxes.

4. Changes in the rate structure of indirect taxes occurred quite

¹ These are really forced savings, rather than a tax.

frequently during these periods. These included a substantial increase in import duties on tobacco, an extension of the excise taxes to home-grown tobacco and locally manufactured cigarettes, a sharp increase in the duty on petroleum products and an upward adjustment of motor vehicle registration fees. Furthermore, in 1972, an excise duty was imposed on motor vehicles, and the national sales tax was introduced. The introduction of these taxes and the upward adjustments in their rate structures helped to increase the average effective rates of indirect taxes.

Turning now to the patterns of the effective tax rates, the following conclusions can be drawn:

1. The effective tax rates for all direct taxes for the three periods exhibited a similar U-shaped pattern.

2. The effective tax rates for export duties showed slight regressivity at the lower end of the income scale, were more or less proportional for the middle income ranges, and turned somewhat progressive at the upper end. In 1973, households in the upper income class paid on the average about 8 per cent of their income as export duties, substantially less than the 13 per cent in 1968. In contrast, households in the lower income brackets bore heavier burdens in 1973 than in 1968.

Thus the effective rates of indirect taxes are regressive at the two extreme ends of the income scale, and this pattern has become more pronounced over time.

We may, therefore, conclude that the distribution of the tax burden in Peninsular Malaysia became more regressive between 1968 and 1973. Thus the strong redistributive intent of the Second Malaysia Plan through taxation has not improved the after-tax distribution. (See also the following discussion.) Instead, the data seem to indicate that taxation had helped to worsen the trend.

Next we can study the impact of taxation on the distribution of net income for the periods 1968, 1970 and 1973. This is done by comparing the pre-tax income distribution with after-tax (direct and indirect) distribution. These results are shown in Table 14.10. One striking feature of the Table is that taxation in 1968 helped to reduce income inequality; the reduction index (i.e. the difference between the before-tax and the after-tax Gini distribution indices) exceeded 10 per cent. However, for the periods 1970 and 1973 taxation accentuated inequality. This again shows that the overall tax structure had become increasingly regressive over the period.

The above discussions focused on the question of vertical equity, i.e., how the tax burden was distributed over the different income levels. However, there are also differences in the relative tax burdens of households within the same income class. Different sources

TABLE 14.10
Pre-Tax and Post-Tax Gini Coefficients: Peninsular Malaysia,
1968, 1970 and 1973

	<i>Gini Coefficients</i>		
	1968	1970	1973
Pre-tax	0.4583	0.5139	0.5037
Post-tax	0.4084	0.5166	0.5192
Reduction Index ¹ (%)	+10.88	-0.51	-3.09

Source: Ismail, 1977.

¹ '-' indicating worsening effect and '+' indicating improving effect on income inequality.

of income, different patterns of expenditure and the different structural features of the tax system may work to produce differences in the relative tax burdens borne by the sub-groups of the population. We, therefore, examined the distribution of the tax burden, and the impact of taxes on income distribution, between rural-urban households as well as by ethnic groups in 1973. This was also related to the role of taxation in attempting to correct racial and sectoral economic imbalance.

As can be seen in Table 14.11, the general pattern of the effective tax rates for urban households is similar to that of the total population, that is U in shape. Progressivity at the upper end of the income scale resulted primarily from individual income tax, export duties on rubber estate and tin mine owners, augmented by the corporation income taxes and the indirect taxes on petroleum, motor vehicle fees, and 'other' import duties and excise. Regressivity at the low end of the income scale is mainly caused by indirect taxes.

The overall effective tax rates for the rural households were more regressive at the lower end of the income scale than for urban households. Regressivity at the lower income levels is explained primarily by the burdens imposed by indirect taxes and rubber export duties on smallholders. In 1973, about 53 per cent of rubber producers were smallholders receiving an average monthly income of \$150 to \$200. Hence the overall average effective tax rates are substantially lower for the rural than the urban sector.

Looking at the various ethnic groups, the total tax burdens for the Chinese and Indian households were estimated to be roughly the same at about 31 per cent, while that of the Malay households was 27 per cent (Table 14.11). Hence the average Malay households bore a slightly lower tax burden than the other two ethnic groups. However, the Table also shows a substantial difference in the rela-

TABLE 14.11
 Distribution of the Total Tax Burden According to Rural-Urban
 Residence and Ethnicity by Income Size, 1973
 (per cent of total household income)

	<i>Annual Income (M\$)</i>										
	<i>Below 1,200</i>	<i>1,200- 1,800</i>	<i>1,800- 2,400</i>	<i>2,400- 3,600</i>	<i>3,600- 4,800</i>	<i>4,800- 6,000</i>	<i>6,000- 7,200</i>	<i>7,200- 8,400</i>	<i>8,400- 12,000</i>	<i>Above 12,000</i>	<i>Total</i>
Rural strata	40.94	33.51	30.37	26.38	24.80	26.62	25.04	23.74	35.06	40.99	28.28
Urban strata	27.37	33.15	28.61	27.20	25.99	25.01	24.88	27.19	27.31	44.93	33.66
Malay households	38.42	30.92	28.61	23.72	24.86	27.15	20.71	24.70	27.59	24.43	27.06
Chinese households	40.46	37.32	29.43	28.95	25.93	27.75	31.68	28.69	34.33	32.63	30.86
Indian households	45.37	32.20	31.62	32.11	28.23	27.33	31.66	33.37	32.80	29.88	30.88

Source: Ismail, 1977: 210-12 and 218-19.

tive tax burdens borne by the various ethnic groups within the same income levels. Almost throughout the entire range of income, taxation in Peninsular Malaysia seemed to be biased in favour of Malay households. It should be emphasized that these were not the result of any deliberate tax policy of the Government, but rather they reflected differences in consumption patterns, asset ownership and economic specialization by the different ethnic groups.

Another interesting aspect of the overall effective rates of taxation shown in Table 14.11 is the absence in the data by individual ethnic groups of the clear U-shaped pattern found for the total population, as well as for all urban and all rural households. The effective tax rates for the three groups appear to be regressive for those in the lower income brackets, and also for those in the highest income group. Such a pattern suggests that the tax system in Malaysia works more towards reducing income differentials between ethnic groups than within them.

Table 14.12 estimates the impact of taxation on income distribution for urban and rural households as well as for the major ethnic groups. Comparing pre- and post-tax income distribution for urban and rural households we find that taxation has improved the income distribution of the urban households but worsened it among rural households. From the same Table we also find that, in the absence of taxes, the Gini ratio is lowest for the Malay households and highest for Indian households, and that of Chinese households lie in between. However, the Gini ratio for the post-tax distribution is highest for Malay households and lowest for Chinese. These results indicate that the tax system in Peninsular Malaysia in 1973 worsened income distribution among the Malay and rural households while it helped to reduce inequality for the Indian and Chinese households, and for urban households in general.

TABLE 14.12
Pre-Tax and Post-Tax Gini Coefficients by
Urban-Rural Strata and Ethnic Groups, 1973

	<i>Gini Coefficient</i>		<i>Reduction Index</i>
	<i>Pre-Tax</i>	<i>Post-Tax</i>	
Urban strata	0.4742	0.4348	+8.30%
Rural strata	0.4516	0.4775	-5.74%
Malay	0.4437	0.4692	-5.75%
Chinese	0.4553	0.4475	+1.71%
Indians	0.4693	0.4598	+2.02%

Source: Ismail, 1977, 236-7.

The redistributive effect of the tax system has thus been very limited in Peninsular Malaysia. This is attributed to a number of factors:

1. The tax structure in Peninsular Malaysia is dominated by indirect taxes and export duties which are generally regressive.

2. In the past, tax policy was essentially designed to meet revenue needs with little attention to the distributional goal. Hence taxes which seemed to have greater revenue potential received higher priority.

3. Although the coverage of the individual income tax has increased in the 1970s, its tax net is still very narrow. Furthermore, liberal exemptions and other tax relief provided in the Malaysian tax structure have reduced the potential progressivity of the tax system.

Expenditure Incidence

Our discussion of the expenditure incidence will be based largely on the work of Meerman (1978). It must be emphasized that readers should be cautious in interpreting and drawing conclusions from this kind of study because of the methodological problems involved. Meerman's study is confined to the incidence of public expenditures allocated to four major government programmes, namely, education, medical service, public utilities and agriculture.

Table 14.13 presents the summary of Meerman's findings. The last column of the Table indicates that per capita expenditure was greatest for the wealthiest quintile and lowest for the lowest quintile. These results suggest that the distribution of public outlays tend to benefit the non-poor, especially those in the top quintile, more than the poor households. According to Meerman's study, this regressive result is due to the fact that poor households in the lower quintiles received a lower share of the post-secondary education expenditure.

By developing a need-oriented approach to public expenditure on education, Meerman finds that relatively speaking only about 84 per cent of the educational needs of the poor quintile were met, while the richest quintile had access to facilities capable of providing 137 per cent of their needs. Further, his findings also reveal that in 1973 the current public subsidy per student at post-secondary level far exceeded that provided at secondary or primary levels and that the major beneficiaries of post-secondary education expenditure were the rich.

With regard to medical services, Meerman's study basically concludes that the government goal of making medical care available to all Malaysians irrespective of income has been achieved. In con-

TABLE 14.13
Distribution of Basic Services and Costs by Basic Partitions, Peninsular Malaysia, 1974
(values in Malaysian ringgits)

	<i>School Enrolment Rates</i>			<i>Percentage of Households</i>				<i>Per Capita Distribution</i>		
	<i>Annual Household per capita Income</i>	<i>Primary</i>	<i>Secondary</i>	<i>Post-secondary</i>	<i>Using Public Clinics</i>	<i>In-patient in Public Hospitals</i>	<i>With Piped/Pure Water</i>	<i>With Electricity</i>	<i>Of Costs of Federal Agricultural Programme</i>	<i>Of Costs of all Public Expenditures Charged in the Study¹</i>
Mean	969	90	40	3.1	76	15	57	56	33	128
Income quintile										
1	236	85	33	0.7	89	14	23	24	12	109
2	428	80	33	1.2	85	18	47	47	45	133
3	621	93	40	2.3	78	11	52	49	38	131
4	955	99	44	2.6	78	20	68	69	27	123
5	2,620	90	48	5.5	62	12	83	84	34	142
		<i>School enrolments</i>								
Mean		94	40	0.021						
Race										
Malay	775	69	41	0.039	77	13	41	38	51	156
Chinese	1,244	97	38	0.024	71	14	83	84	11	90
Indian	911	87	36	- ²	82	30	68	74	10	109
Town size										
Metropolitan	2,025	95	45	0.090	62	15	89	90	6	126
Large urban	967	92	46	0.023	77	18	58	69	12	108
Small urban	879	96	51	0.038	77	11	63	72	11	115
Rural	696	80	36	0.014	79	15	46	39	51	138

Source: Meerman, 1978: i.

¹The sum of charged costs for education, medical care, agriculture and pensions.

²Sample too small to estimate.

trast, the distribution of government expenditures on three public utilities, i.e., pipe water supply, electricity and flushed-sewage disposals, mainly benefit the rich. The results of his study show that utilities supplies are most available in areas of high income and concentrated population.

Meerman's study also sheds light on the redistributive effect of public expenditure on the various ethnic groups. On the whole, public expenditures operated in favour of the Malays. By his calculations the average benefit derived by the Malays is one and three-quarter times that gained by the Chinese and one and a-half times that enjoyed by Indians. This supports the view that the Malaysian Government is more committed to reduction of inter-ethnic income differentials than to reduction of inter-personal inequalities.

An earlier study (Thillainathan, 1976) discusses the redistributive effects of some of the selective agricultural programmes undertaken by the Government to reduce the economic imbalance between the Malays and the non-Malays. Thillainathan's evaluations of three government programmes, FELDA land schemes, irrigation schemes and education, revealed that differential support and subsidies have been given to different economic activities of the group of beneficiaries. By computing the average annual income obtained by the beneficiaries of these programmes, the results showed that although FELDA settlers in both the oil palm and rubber schemes received around the same amount of capital subsidy, the expected income received by the former is almost twice that of the latter. This implies that the approximately equal rate of subsidy received by the two groups cannot be justified by reference to equity considerations. A more striking contrast is obtained when we compare the expected income of post-secondary students with that expected by farmers. Although advanced students are potentially high income earners, with an earning capacity well above that of rice farmers and FELDA settlers, subsidies to them are more than double those received by the average farmer family. The policy of providing differential services to different groups on the pretext of helping the Malays may thus result in widening the personal income differential.

Net Benefit

In order to get a more accurate picture of the effect of fiscal operation on income distribution in Peninsular Malaysia, it is necessary to recalculate the tax incidence for each decile using the result of Table 14.9. This is shown in Table 14.14 and, as can be seen from the Table, only the lowest decile showed any net gain from budget activity while the other deciles all suffered net losses. These results indicate that although the rich were adversely affect-

TABLE 14.14
 Normalized Budget Incidence by Income Deciles, 1974
 (aggregate ex-ante income = 100)

<i>Deciles</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>Lower half of 10</i>	<i>Upper half of 10</i>	<i>Total</i>
Ante-govt. income	17.85	30.35	39.89	48.24	57.86	69.90	85.92	111.61	154.99	220.48	546.78	100.00
Taxes (incl. soc. secu.)	9.59	16.23	20.23	22.34	24.26	23.43	28.25	35.90	50.32	71.11	208.57	37.00
Prorated benefits	1.82	3.10	4.07	4.92	5.90	7.13	8.76	11.38	15.81	22.49	55.71	10.28
Charged benefits	9.83	12.59	13.23	14.17	14.34	12.66	12.01	14.32	13.92	14.06	16.45	13.23
Post govt. income	19.91	29.81	36.96	44.99	53.84	66.26	78.44	101.41	134.40	185.92	410.37	86.51
Income ratio	1.12	0.98	0.93	0.93	0.93	0.95	0.91	0.91	0.87	0.84	0.75	
Net benefits	2.06	-0.54	-2.93	-3.25	-4.02	-3.64	-7.48	-10.2	-20.59	-34.56	-136.41	-13.49

Source: Meerman, 1978; Ismail, 1977; Ishak, 1977.

ed, the fiscal operation only redistributed a very small proportion of total income directly to the poor. Moreover, Meerman's studies on expenditure incidence only take into account direct benefits of the programme. However, it is well-known that projects which are designed to help the rural poor also indirectly benefit the rich. If studies were to cover the indirect beneficiaries, the effects of the fiscal system on income distribution would be more disheartening.

Policy Options

The above discussions suggest that the role of fiscal operations in achieving the re-distributive objective in Malaysia has been very limited. However, this does not imply that the Government should continue on these lines and leave it to the market system to solve the problem. The basic policy question is, what policy measures could be adopted by the Government so that the lower and the middle income groups would receive an increasing share of total national income.

Two sets of policy could be considered in this regard. The first would concentrate on factors that would directly determine the primary distribution of income. Such could include: price and wage controls, import and tariff policy, land reform, educational policy, industrial and agricultural policies and some other non-budgetary measures that might have important redistributive effects.

The second set of policies would involve direct action by the Government to redistribute income through the fiscal system. In other words, through its tax transfer and expenditure policies the Government could increase or reduce the burdens on certain groups, thus raising or lowering their effective net income. The most direct method of improving such burdens on households in the lower income levels would be to reduce the taxes imposed on them and to increase the taxes paid mainly by the rich in order to compensate for the revenue forgone. Further, revenue could be used to finance preferentially those public services that would benefit the lower income groups.

Glossary

- Adat*: Customary/traditional law
Adat Perpateh: Matrilineal kinship system
Adat Resam: Social customs
Asar: One of the five Muslim prayers (afternoon)
Babas: Early Chinese immigrants
Bahasa Malaysia: The Malay language
Bandar: City or town
Bank Rakyat: People's Bank
Bank Pertanian: Agricultural Bank
Bumiputra: Sons of the soil
Chettiar: Money-lenders
Dakwah: Missionary
Fardu al-Kifayah: An obligation to the members of the Muslim community
Gotong Royong: Mutual help
Ikan: Fish
Isyak: One of the five Muslim prayers (night)
Kampung: Rural/village
Kitab: Book of God
Maghrib: One of the five Muslim prayers (evening)
Malu: Self-respect
Masuk Islam: To embrace Islam
Masuk Melayu: To become a Malay
Majlis: Council
Orang Asli: Aboriginal peoples
Padi: Unhusked rice
Pikul: A measure of weight (133 lb. = 60½ kg.)
Ramadan: Ninth month of the Muslim calendar
Syurga: Heaven
Subuh: One of the five Muslim prayers (dawn)
Syari'ah: Islamic law
Ternak: To breed livestock, animal husbandry
Ummah: Islamic religious community
Zakat: A tithe paid by Muslims
Zuhur: One of the five Muslim prayers (afternoon)

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Index

- Abdul Razak, Tun: and rural development, 99-100
- Adat (Malay customs), 108-13; *adat berpateh* (matrilineal kinship system), 111; *adat resam* (social customs), 109
- Agriculture, agricultural sector, 25-30, 43, 125, 128, 129, 131, 133, 135-8, 152, 156, 203-4, 205-28; contribution to GDP, 26-7, 128-9, 152, 205-6; diversification of production, 221, 223, 225-6; employment in, 27, 135-6, 152, 206-9, 217-20; features of, 211-15; future development of, 27-9, 225-8; land suitable for, 25-6, 43; new technology, 28-9, 206, 217, 223-4; non-market production, 135; poverty in, 146-7, 207, 209, 211, 220-1, 225, 321; production and export earnings, 26-7, 131-3, 188-90, 192-3, 205-6, 218-19; public expenditure on, 130-1, 207-8, 314-16, 338-40; *see also* Cocoa; Coconuts; Oil palm; Palm oil; Pepper; Pineapples; Rice; Rubber
- Air transport, 58-9
- Aliens Act of 1933, 67
- Amenities: geographical distribution, 45-6; urban-rural distribution, 107, 125
- Aquaculture, 25, 32-4, 43, 188, 209-10; water resources for, 33; *see also* Fishing, marine
- ASEAN, 7, 195, 258, 283, 284; regional cooperation, 257-8; trade with, 196-9
- Asian Development Bank, 151, 202
- Australia, 3, 190, 196, 198, 250, 280
- Babas (early Chinese migrants to Penang and Malacca), 116
- Balance of payments, 184, 199-202, 290, 300, 304-6
- Bangladesh, 284
- Bank Rakyat: misuse of funds, 7, 97
- Banks, banking, 287-300; development finance, 292, 293-4; inter-bank market and bank liquidity, 291, 293-4; under Currency Board, 287-9; *see also* Central Bank; Commercial banks; Merchant banks
- Bargain, The, political significance of, 89
- Bauxite, 190, 194, 229, 242; *see also* Mining, mining sector
- Bolivia, 234, 239
- Boudeville, Jacques, 168
- Briggs Plan, 84; *see also* Urbanization
- Bright lights effect, 11; *see also* Migration, internal
- Bumiputra: and indigenous Borneo races, 14, 91, 93; participation in mining, 241; political claims of, 88; poverty of, 126, 206, 220-1; predominance in rice farming, 126, 206, 214-15, 220-1; redistribution in favour of, 19-22, 130, 153, 321; urbanization of, 121
- Bureaucracy, 91, 94, 224-5
- Burma, 150, 151
- Cambodia, 151
- Capital market, 290-1, 292-5, 305-7
- Central Bank, 287, 289-95, 300-5, 307; Banking Act of 1973, 294; control of bank liquidity ratios, 290, 303-4; control of statutory reserve ratios, 290, 303-4; currency issue by, 291; establishment of, 289; exchange control, 291, 303; regulation of interest rates, 290, 295, 303, 304, 307; supervision and control of banking institutions, 287, 289-90, 294

- China, People's Republic of, 2, 6, 7, 193, 197, 198, 204, 239, 250
- Chinese (ethnic group), 104-8; culture and religion, 113-17; dialects, 114; employment patterns, 139-40, 218-19; high rates of saving, 127; immigrants, 13-14; mainly urban dwellers, 106, 113-14, 153; modes of livelihood, 107, 114, 116; origins, 115-16; political claims of, 88, 89; predominance in tin mining, 126, 153, 231, 232; racial tensions regarding, 8-9, 13
- Class: and race, 98, 99; intra-Malay class tensions, 98; Malay middle class, 9, 18, 87; Malay urban proletariat, 9, 10, 97
- Cocoa, 6, 26, 27, 28, 190, 192, 203, 211, 213-14, 226; area planted, 26; export earnings, 190, 192; high-yielding varieties, 28; production of cocoa beans, 27; *see also* Agriculture, agricultural sector
- Coconuts, coconut oil, 26, 27, 28, 29, 193, 208, 211, 216, 275; area planted, 26; high-yielding varieties, 28, 193; intercropping, 29, 193; production and export earnings, 27, 190, 193; *see also* Agriculture, agricultural sector
- Colonial administration, 45; 65, 94, 105, 148-51, 261
- Commercial banks, 288, 289-93, 294-5, 296, 298-300, 303-4, 307, 310; assets, 289-90, 292, 296, 298-300; deposits, 290, 303-4; expansion of network, 289-90, 291-2; foreign banks, 288, 292; foreign exchange business, 288; local banks, 288, 289-90, 292; loans and advances, 289-90, 292, 294-5, 300, 303-4, 307; *see also* Central Bank; Merchant banks
- Common Customs Tariff (CCT), 197
- Communalism, 98, 103
- Communism, 102; Communist Party of Malaya (CPM), 102; communist terrorism, 9, 84, 85, 160
- Copper, 5, 194, 242; *see also* Mining, mining sector
- Credit Guarantee Corporation (CGC), 294-5
- Culture: creation of a national culture, 122-4; *see also* Chinese; Indians; Malays
- Currency, 287-91; split between Malaysia, Singapore and Brunei (1967), 291, 301; issue by Central Bank, 291-2; issue by Currency Board, 289
- Currency Board, 287-9
- Dakwah (Islamic movement), 90, 121-2; *see also* Islam
- DARA (Pahang Tenggara Regional Development Authority), 30, 85, 157-8, 160-4, 166-7, 169, 174-80, 241; *see also* New land settlement; Regional development and planning
- Defence and internal security, 38, 315-17, 319-20; problems affecting tin mining, 38
- Demonstrations: by farmers at Baling (1974), 101; at Alor Star (1980), 101, 102
- Development finance institutions, 292
- Development planning, 141-2, 148-83; distinct character of Malaysian, 148-52; growth pole concept, 157-65, 166-80; in Sabah and Sarawak, 180-1; unified approach to, 157-8, 174
- Diversification: of exports, 126-7, 131, 195-6, 202, 269-70, 286, 326; of production, 127, 185, 221, 225, 261-3, 268-70, 286, 314
- Drought: of 1977/8, 18
- Economic Planning Unit (EPU), 151, 157-8, 164, 166, 182, 220
- Economic situation: general outline, 2-5
- Education, 22, 68-9, 336-7; and development, 120; and racial policy, 98; and unemployment, 83-4; public expenditure on, 314-17, 319, 320; schools, 44, 120; under colonial administration, 150-1
- Electrical goods and electronic components, 195-6, 203-4, 269-70, 282-3; *see also* Manufacturing sector
- Electricity supply, 59-62; demand for, 59-60; hydroelectric power, 61, 252-3; installed capacity, 61

- Employees Provident Fund (EPF), 288, 290, 298-9, 300, 301
- Employment: by ethnic group, 137-41; growth by sector, 135-6; in agriculture, 27, 135-7, 206-9, 217-20; in manufacturing, 135-6, 267-8, 271, 277-8; in mining, 232; structure, 135-41
- Entrepreneurship, indigenous, 150
- Environmental damage, 30-1, 33-4, 37, 38-40; *see also* Pollution
- Ethnic groups in Malaysian society, 104-8, 122-4, 126; Bajau, 108; Iban, 104, 107-8; Kadazan, 104, 108; Murut, 108; *see also* Chinese; Indians; Malays
- European Economic Community (EEC), 256, 280, 284; import restrictions in, 196; trade with, 196-9
- Exchange rate, 287, 289, 291, 305-6; *see also* Foreign exchange
- Exports, 126-7, 131-2, 184-5, 188-200; 202-4; by country and region, 196-9; by major commodities, 133, 190; dependence on tin and rubber, 126, 185, 229; diversification of, 126-7, 131-3, 195-6, 202, 268-71, 286, 326; of agricultural products, 133, 188-93, 205-6; of manufactures, 133, 191, 195-6, 280-1
- Export sector, 131-3, 188-99; export expansion, 203-4, 260-4, 282-4; export-oriented industries, 185-6, 195-6, 203-4, 276; export prices, 132-4, 188-93, 222, 226, 229, 261, 305-6; export taxes, 322-3, 325-6
- Farmers' Organization Authority (FOA), 100, 224
- Federal Agricultural Marketing Authority (FAMA), 100, 224
- Federal Land Consolidation and Rehabilitation Authority (FELCRA), 85, 130-1, 211, 212-13, 224
- Federal Land Development Authority (FELDA), 85, 100-1, 130-1, 155, 157, 177, 203, 211, 212-14, 222-3, 224; income of FELDA settlers, 100-1, 220, 222; operations of, 100-1, 212-13; output of FELDA settlers, 214, 217; *see also* New land settlement; Regional development and planning
- Federal/State relationships, 91, 94, 275; and land administration, 94
- Fertility, 67-8, 71-5, 80, 81; and economic development, 75; birth rates by race, 72-4; changes in age-specific fertility, 73; *see also* Population
- Financial system, 287-307; development and structure of, 287-95; diversification of, 287
- First Development Decade, 158, 169
- First Malaysia Plan (FMP), 45, 156-7
- Fishing, marine, 31-2, 43, 188, 205, 208-9, 227; contribution to GDP, 31; depletion of resources, 32, 209; employment in, 32, 206; infrastructure, 32; production and export earnings, 31, 190, 193, 205-6, 208; regions, 31; *see also* Aquaculture
- Fisheries Development Authority (MAJUIKAN), 209, 224
- Food processing industry, 186-7, 267-9, 275; exports, 191, 270; *see also* Manufacturing sector
- Ford Foundation, 151
- Foreign aid, 151
- Foreign exchange, 288-9, 292, 305; reserves, 200, 201, 202, 288-9, 300, 305-6; *see also* Exchange rate
- Foreign investment, 4, 130, 151, 261, 263-4, 271
- Foreign ownership of corporate assets, 96, 127, 153-5, 275-7
- Forestry and forest products, 6, 24, 25, 34-7, 42-3, 126, 131, 132, 177, 180, 181, 189-90, 203, 204, 205, 206, 229, 254-8, 259, 268, 275; depletion of resources, 36, 257; distribution of resources, 34-5, 254-5; environmental damage from, 30, 37; production and export earnings, 35-6, 133, 189-91, 256-7; reafforestation, 36
- Fourth Malaysia Plan, 165, 182
- Generalised System of Preferences (GSP), 196, 197
- Germany, Federal Republic of, 196, 197, 198
- Gold, 5; *see also* Mining, mining sector

- Gotong royong* (mutual help), 109
- Gross Domestic Product (GDP),
Gross National Product (GNP), 4,
152, 197, 205, 260, 281, 283, 300-
3, 308, 317; and money supply,
301-3; GDP per capita, 2-3, 152,
158, 173, 180-1; relation to tax
revenue, 321-3; structural changes
in, 128-9, 152, 156
- Growth centres, 85, 97, 272-5; *see*
also Regional development and
planning
- Growth pole concept, 157-65, 166-80;
see also Development planning
- Harvard Institute for International
Development (formerly Harvard
Development Advisory Service),
151
- Health services, 44, 69, 336-7; effects
on mortality of, 70; public ex-
penditure on, 315-17, 319
- Hong Kong, 5, 6, 204, 257, 262, 276,
281, 282, 283
- Honjo, Masahiko, 182
- Immigration, 23, 66-8, 84; Chinese
and Indian immigrants, 13, 66-8,
105-6, 123; illegal, 7, 11, 207;
Indonesian immigrants, 11, 105;
restrictions on, 67, 84
- Imports, 186-8, 196-8, 280-1; by
country and region, 197, 198;
by economic function, 186-7; im-
port prices, 132, 306; import
substitution, 185, 186, 261-3, 275,
278, 282, 284-5, 323, 327, *see also*
Protection; import taxes, 322-3,
326-7
- Income, 100-1, 141-5, 220-1, 320,
338-40; household, 143-4, 153,
220; per capita, 2-4, 152, 317, 320;
upper middle income country, 3-4,
152
- Income distribution, 4, 127, 141-6,
152-3, 309, 321, 338-40; and the
tax structure, 328-36, 340; *see also*
Poverty
- Independence, 7, 21, 45, 66, 99, 120,
123, 151, 160, 185, 204, 260, 275
- India, 6, 284
- Indians (ethnic group), 104-8, 153;
culture and religion, 118-19; em-
ployment patterns, 137-41, 218-19;
Indian Muslims, 119; modes of live-
lihood, 107, 118; on estates, 118,
126; racial and language groupings,
118
- Indonesia, 3, 6, 29, 150-1, 208, 239,
250, 257, 265, 284; immigration
from, 11, 105; population ex-
plosion on Java, 149
- Industrial estates, 156, 261, 271-2;
see also Manufacturing sector
- Industrial growth, industrialization,
6, 155-6, 184-6, 192, 195-6, 203-4,
260-75, 278-86, 320; *see also* Manu-
facturing sector
- Inflation, *see* Prices
- Infrastructure: physical, 44-65, 125,
128, 144, 221-2; for manufacturing,
261, 264
- In situ* development, 19, 97, 216-17,
222-4, 225-7; *see also* Agriculture
- Intermarriage between races, 89-90;
religious barriers to, 90
- Investment Incentives Act of 1968,
130, 264; *see also* Pioneer industries
- Iron, 229; *see also* Mining, mining
sector
- Islam: and *dakwah* movement, 90,
121-2; and PMIP, 92; and the
State, 90-1, 92, 122
- Islamic Development Bank, 201
- Japan, 3, 190, 193, 208, 239, 245,
249, 250, 256, 257, 276, 280, 282,
284; trade with, 196-8
- Jengka Triangle (regional develop-
ment scheme), 30, 156-7, 161-4; *see*
also New land settlement; Regional
development and planning
- Johore Bahru, 159, 177, 179
- Johore Tenggara, *see* KEJORA
- Joint ventures, 156, 241, 242
- Kasper, Wolfgang, 4-5
- KEJORA (Johore Tenggara Regional
Development Authority), 85, 157-9,
161-4, 166-7, 175, 176; *see also*
New land settlement; Regional de-
velopment and planning
- KESEDAR (Kelantan Selatan Re-
gional Development Authority), 85,

- 162-3, 166-7, 175, 176, 179; *see also* New land settlement; Regional development and planning
- KETENGAH (Trengganu Tengah Regional Development Authority, 30, 85, 161-3, 175, 176, 179; *see also* New land settlement; Regional development and planning
- Khalid Husin, 153, 156-7, 161, 166
Khalwat, 90
- Korea, Republic of, 3, 6, 190, 193, 256, 257, 262, 280, 283
- Kota Bharu, 179
- Kuala Lumpur, 159, 169, 177, 275
- Kuantan, 159, 168, 169, 177, 178-9
- Labour: and skills, 6-7, 283, 284-5, 286; illegal immigration of, 7, 11, 23, 207; low cost, 6, 265-6, 270, 283-4, 286; migrant waves in colonial period, 66, 105-6; scarcity in rural areas, 10-11, 121, 206-7, 219-22, 225, 265, 278; unlimited supplies (Lewisian), 6
- Labour force, 80-4, 152, 265-6; female participation in, 81-3, 278
- Laissez-faire*, 5, 263
- Land: administration, 94; cultivable, 25-6, 43; distribution of land resources, 24-5; new land development and settlement, 27-8, 29-30, 86-7, 181, 211-14, 219, 222-7; ownership, 214-16; under cultivation, 25-6; under cultivation by types of crop, 26
- Laos, 151
- Livestock industry, 187, 205, 206, 210, 214, 227
- Lumpenproletariat, 97
- Malacca, 149, 159
- Malays (ethnic group), 104-8; culture and religion, 108-13; employment patterns, 137-41, 218-19; mainly rural dwellers, 106; modes of livelihood, 107; political supremacy of, 88, 91, 92-4, 99, 153, 206; poverty of, 89, 153, 206, 220-1; special position of, 89, 95-6
- Malaysian Agricultural Research and Development Institute (MARDI), 224
- Malaysian Export Trade Centre, 264
- Malaysian Industrial Development Authority (MIDA), formerly FIDA, 130, 156
- Malaysian Mining Corporation, 241
- Manufactures, 184, 195-6; exports of, 131-3, 190, 191, 195-6, 280-1; protection for, 278-80
- Manufacturing sector, 4, 6, 25, 184, 260-86; contribution to GDP, 128-9, 152, 195, 260, 272-3; employment in, 135-6, 152, 267-8, 271, 277-8; establishment size and regional distribution, 271-5; future development of, 285-6; growth of, 128, 195, 260-6, 279-80; industrial estates, 156, 261, 271-2; industrial output, 266-75; structural change in, 266-70; *see also* Industrial growth, industrialization
- MARA (Majlis Amanah Rakyat—Council of Trust for the Indigenous People), 130, 155, 319
- MARA Institute of Technology, 22, 319
- Merchant banks, 292-3, 294; *see also* Commercial banks
- Merdeka University, 98
- Migration, internal, 10-11, 84-7, 97-8, 121, 207, 219, 320-1
- Mineral Investigation and Drilling Unit (MIDU), 241
- Mining, mining sector, 229-42; bumiputra participation in, 241; contribution to GDP, 128-9; employment in, 232; environmental damage from, 30-1, 38-40; *see also* Bauxite; Copper; Gold; Iron; Tin; Uranium
- Ministry of Land and Regional Development, 153, 166, 182
- Monetary policy, 287-307; anti-inflationary measures, 302-3
- Money supply, 288-9, 300-5; and balance of payments, 300-1; relation to GNP, 300-3
- Mortality, 68, 69, 70-1, 75, 81; infant, 68, 70-1, 79, 81; maternal, 70-1; *see also* Population
- Muadzam Shah (growth centre), 169, 177, 178
- Muda Agricultural Development Au-

- thority (MADA), 100
- Muda irrigation scheme, 206, 211-12, 220
- Multilateral Trade Negotiations (MTN), 196
- Nahan, Mike, 3
- National income, 1, 2-5, 18, 156, 340; subsistence component, 2-3
- National Livestock Development Authority (MAJUTERNAK), 210, 224
- National Padi and Rice Board (Lembaga Padi dan Beras Negara-LPN), 100, 102, 224
- National Savings Bank (formerly Post Office Savings Bank), 288, 292, 300, 310
- Natural gas, 6, 12, 40, 41, 42-3, 194, 202, 229, 243-4, 251-2, 253, 258-9; *see also* Petroleum
- Negri Sembilan Timur (regional development scheme), 161-4; *see also* New land settlement; Regional development and planning
- Netherlands, 190, 192, 193, 197, 198
- New Economic Policy (NEP), 8, 18, 23, 85, 89, 102-3, 128, 130, 131, 132, 139, 142, 152-6, 157-8, 160-1, 241, 263, 266, 282, 317-18; creation of national culture, 122-4; emphasis on ethnic divisions, 105; main features of, 8, 95-6, 145, 153; origin of, 8, 95, 153; ownership in agriculture and industry, 153-5; ownership in corporate sector, 22, 96-7, 154-5, 275-6
- New International Economic Order, 204
- New land settlement, 28, 86-7, 219; organized schemes, 29-30, 130-1, 132, 211-4, 222-7; *see also* DARA; FELDA; Jengka Triangle; KEJORA; KESEDAR; KETENGAH; Regional development and planning
- New villages, 84-5, 160; *see also* Regional development and planning
- Oil palm, 26-7, 125, 177, 179, 184, 185, 190, 192, 203, 211, 213-14, 221, 226, 227, 228; area planted, 26, 206; high-yielding varieties, 28; intercropping, 29; *see also* Agriculture, agricultural sector; Palm oil
- Open economy, 184, 202, 289; vulnerability of, 126, 135
- Orang Asli*, 90-1
- Ownership and control of corporate sector, 127, 153-5, 275-7; under New Economic Policy, 22, 96-7, 155
- Pahang Tenggara, *see* DARA
- Palm oil, 6, 126, 177, 184, 199, 203, 204, 217, 226, 229; production and export earnings, 26-7, 131-3, 190-2; *see also* Agriculture, agricultural sector; Oil palm
- Penang, 150, 159, 177, 179
- Peninsular Malaysia, 1, 5, 9, 10, 15, 66, 93, 104-5, 126, 132, 206, 210, 226, 272; characteristics, 12-14; energy resources, 40-2, 243-4; geographical distinction, 24-5; infrastructure, 44-65; mineral resources, 37-40, 229; natural resources, 25-37, 254-6
- Pepper, 192-3, 203, 214; area planted, 26; production and export earnings, 27, 190, 192; *see also* Agriculture, agricultural sector
- PERNAS (Perbadanan Nasional-National Corporation), 96, 130, 155, 241, 319
- Perroux, François, 168
- Perspective Plan, 156
- Petroleum, 5-6, 25, 40-2, 131-2, 184, 194, 202, 203, 205, 229, 242-51, 253-4, 258-9, 275, 323-6; benefits from, 132, 245-6, 248-9; distribution of resources, 40-1, 242-3; income tax, 132, 323-5; legislation, 247-8; marketing of crude oil, 249-50; oil prices, 194, 226, 240, 246-7, 326; production and exports, 131-3, 190, 194, 244-6; production costs, 246-7; reserves, 5-6, 40, 42, 243-4; *see also* Natural gas
- PETRONAS (Petroleum Nasional), 61, 240, 247-8, 249-50, 252
- Philippines, 3, 6, 29, 250, 257, 265, 279
- Pineapples, 125, 208, 211; area planted, 26; high-yielding varieties,

- 28; production and export earnings, 27; *see also* Agriculture, agricultural sector
- Pioneer industries, 185, 264, 327; legislation for, 130
- Polarization, 8-9; between rich and poor, 9-10; East/West Malaysia, 9, 12-14, 125-6; economic, 125-6; Malay/Chinese, 8, 13-14; of economic and political power, 7-8; religious, 14-17, 121-2; rural/urban, 10-11, 125
- Political parties, 91-4, 98; Alliance, 91; Barisan Nasional (National Front-NF), 91-3, 103; BERJAYA (Sabah political party), 93; BERJASA (breakaway from PMIP), 92; Democratic Action Party (DAP), 92; Malaysian Chinese Association (MCA), 91; Malaysian Indian Congress (MIC), 91; Pan Malaysian Islamic Party (PMIP, now PAS), 92, 103; Parti Jati Rakyat Sarawak, 93; Parti Sosialis Rakyat Malaysia (PSRM), 98; Sarawak United People's Party (SUPP), 93; United Malays National Organization (UMNO), 91-2, 99; United Sabah National Organization (USNO), 93
- Politics, 1; and rural development, 99-103, 155-6; political aspects of Malaysian development, 7-8, 99, 151; political structure, 88-103; *see also* Political parties
- Pollution, 23; air, 49-50; river, 34, 38; *see also* Environmental damage
- Population, 2, 66-80, 261, 320-1; explosion in Indonesia, Malaysia and Sri Lanka compared, 149-50; growth of urban, 10, 84-7; projections, 76-9, 75, 80; sex ratios, 67, 69; youthfulness of, 68-9, 81, 320; *see also* Fertility; Mortality
- Port Klang, 159, 177
- Ports, *see* Shipping facilities and ports
- Post Office Savings Bank, *see* National Savings Bank
- Poverty, 1, 17-19, 145-7, 207, 209, 220-1, 225, 227; and inequality, 141-4; poor households by sector, 146-7; poverty line, 146-7, 152, 220; uneven distribution between races, 126, 328; *see also* Income distribution
- Prices: and wage levels, 134, 265-6; consumer price index, 134, 301-2; export prices, 132-4, 188-93, 222, 226, 229, 261, 305-6; import prices, 132, 306; inflation, 134-5, 301-3, 305-7; price levels, changes in, 132-5, 301; stability of, 4, 132, 262
- Primary industry, 126-7; high technology in, 127; mainstay of economy, 127; *see also* Agriculture, agricultural sector; Mining, mining sector
- Private investment: in agriculture, 207; in manufacturing, 264, 279
- Protection, 185, 261-4, 278-80; protection rate for manufactures, 264, 278-80, 284; *see also* Import substitution; Tariffs
- Public expenditure, 308-22, 336-40; current expenditure, 308-11, 313, 318; development expenditure, 45-6, 130, 131, 207-8, 264, 275, 309-22; growth of, 320
- Public finance, 308-40; *see also* Public expenditure; Tax, taxation
- Public sector, 128, 130-1, 308-9, 313-14; high rate of public consumption, 128; *see also* Public expenditure; Tax, taxation
- Public utilities, 44, 59-65, 336-8
- Quebec, 153
- Race: and economic function, 123, 126, 137-8, 153, 158; cultural differences between, 108; political importance of, 88
- Racial riots of 1969, 8, 89, 128, 317; and the New Economic Policy, 95, 142, 144, 153-4, 317-18
- Raffles, Sir Stamford, 148
- Railways, 25, 51-5, 65; locomotives, 51; passengers, 54; Sabah State Railway, 55
- Reed, Charles, 182
- Regional development and planning, 85-7, 148-83; growth centres, 85, 97, 157-79, 272-3; schemes for, 85; *see also* DARA; Development planning; Jengka Triangle; KEJORA;

- KESEDAR; KETENGAH; New land settlement
- Regional development authorities, *see* DARA; KEJORA; KESEDAR; KETENGAH
- Religion, 14-17, 89-90; freedom of, 90
- Restructuring of society: component of New Economic Policy, 8, 95-8, 123, 153-6, 161, 276
- Rice, 6, 185, 203, 206, 211-12, 216-17, 221-2, 223-4; area planted, 26; crop rotation, 29; imports, 185, 187; production, 27; self-sufficiency, 187; terracing, 29; underground water for, 29; *see also* Agriculture, agricultural sector
- Roads, 25, 44-51; distribution of paved road mileage by State, 45; distribution by surface type, 48; East-West Highway, 46, 65, 319; traffic, 48-50
- Road vehicles, 48-51; number registered, 48-9; percentage distribution by State, 45; traffic, 48-50
- Rubber, 6, 26-7, 126-7, 184, 185, 199, 202, 203, 204, 206, 208, 211, 216-17, 226, 227, 229, 267-8, 273-5; area planted, 26, 189; dependence upon, 126, 185, 313; high-yielding varieties, 28; International Natural Rubber Agreement, 189; new techniques, 29, 221; production and export earnings, 27, 131, 133, 188-90; stimulants, 29; *see also* Agriculture, agricultural sector
- Rubber Industry Smallholders' Development Authority (RISDA), 85, 100, 130, 212, 224
- Rubber Research Institute of Malaysia (RRIM), 28
- Rural development, 130-1, 221-8; political aspects of, 99-103
- Sabah and Sarawak, 1, 9, 17, 66, 93, 104-5, 126, 132, 203, 208, 211, 226, 242, 273; characteristics, 12-14; development planning in, 180-1; energy resources, 40-2, 242-4; geographical distinction, 24-5; infrastructure, 44-65, 274-5; mineral resources, 194, 242; natural resources, 25-37, 256
- Sabah Shell Petroleum Company (SSPC), 249
- Salih, Kamal, 155, 160-1
- Sarawak Shell Berhad (SSB), 249
- Savings: high rate of, 127
- Second Malaysia Plan (SMP), 157-8, 182; and the New Economic Policy, 7-8, 157, 160-1; Mid-Term Review, 158; priorities of, 17-18, 30, 131, 157
- Secondary industry, 27, 125, 126-7; growing sophistication of, 127; *see also* Manufacturing sector
- Sewerage facilities, 59, 64
- Shifting cultivation, 30, 219-20
- Shipping facilities and ports, 55-7; cargo handled, 56; location of ports, 55-6; Malaysian International Shipping Corporation (MISC), 57; volume of shipping, 57
- Simonsen, Ove, 160, 161, 165
- Singapore, 3, 5, 7, 44, 149, 150, 159, 190, 192, 208, 239, 245, 249, 256, 257, 276, 280, 284; trade with, 196-8
- Smallholders, smallholdings, 25, 87, 141, 147, 207, 210, 211-12, 220-1, 222, 228; by tenure status, 214-16; output of unorganized smallholders, 216-17
- Social security: source of savings, 127
- Social structure, 104-24
- Social system, 1
- Socialism, 98
- Soil: and shifting cultivation, 30; bris soils, 29; erosion, 30-1
- Solar energy, 61-2, 252, 253
- South-East Asia Lumber Producers' Association (SEALPA), 257
- Squatters, 97-8, 320; settlements of, 98
- Sri Lanka, 3, 152; population explosion in, 149
- Standard of living, 2-4; comparisons, 3
- State Economic Development Corporations (SEDCs), 96, 130-1, 155, 241, 319
- Sugar, 187-8, 211, 214; area planted, 26; production of refined sugar, 27
- Switzerland, 5

- Syari'ah* (Islamic law), 90
- Taiwan, 3, 6, 190, 256, 257, 262, 280, 283
- Tariffs, 262, 278-80, 326; *see also* Protection
- Tax, taxation, 321-40; and income distribution, 309, 328-40; direct taxes, 322-5; indirect taxes, 322-3, 325-8; tax revenue, 308-9, 322-8
- Telecommunications, 63-4, 65; distribution of facilities, 64
- Tertiary industry, 27, 125, 126-7; growing sophistication of, 127
- Textile and clothing industry, 191, 195-6, 203-4, 269-71, 282; *see also* Manufacturing sector
- Thailand, 3, 6, 188, 196, 197, 198, 208, 239, 245, 265
- Third Malaysia Plan (TMP), 18-19, 30, 46, 48, 50, 54, 158-65, 182, 207, 208, 209; implementation of, 166-7; Mid-Term Review, 131, 139, 147
- Third World, 2; Malaysia as member of, 2; ranking by income per head, 2-3
- Timber, *see* Forestry and forest products
- Tin, 5, 37-40, 43, 184, 193-4, 202, 229-41, 258, 273-5; and internal security, 38; dependence upon, 126-7, 185, 313; distribution of resources, 37-9, 229-30; government policy, 239-41; International Tin Agreement, 239; International Tin Buffer Stock, 202, 240; production and export earnings, 133, 190, 193, 232-3; production costs, 233-7; reserves, 38, 230, 238; special problems of industry, 234-9, 259; structure of industry, 231-2; *see also* Mining, mining sector
- Tourism: visitor statistics, 56, 57
- Trade, 184-204; barriers, 195-6; external trade, 186-99; prospects, 98-9, 282-4
- Trade unionism, 265-6
- Transportation: general infrastructure, 44-5, 274; public expenditure on, 130, 131, 315, 316, 319; urban concentration of, 44
- Trengganu Tengah, *see* KETENGAH
- Ummah* (Islamic religious community), 109
- Unemployment, 7, 83-4, 261; and education, 83-4; by age and residence, 83; rural, 217-19; urban, 97-8, 265
- United Kingdom, 190, 192, 196, 197, 198, 239, 276
- United Nations, 151, 181
- United Nations Conference on Trade and Development (UNCTAD), 189
- United Nations Development Programme (UNDP), 151
- United States, 3, 192, 193, 245, 250, 257, 276, 280, 284; quantitative restrictions in, 196; trade with, 196-8
- United States Government Services Administration, 188
- Unity: national, 89-90, 104-5, 124; of culture, 122-4
- Universities, foundation of, 150
- Uranium, 5, 252; *see also* Mining, mining sector
- Urban Development Authority (UDA), 130, 155, 319
- Urbanization, 10-11, 23, 97-8; and development, 173-80; creeping urbanism, 99, 101; growth of urban population, 10, 84-7; racial imbalance in urban population, 120-1; weaknesses in urban structure, 169-74; *see also* Regional development and planning
- Urban planning, 148, 156-83; *see also* Regional development and planning; Urbanization
- Urban proletariat: creation of Malay, 9, 10, 97
- USSR, 199
- Vietnam, 7, 152, 258; refugees from, 89
- Wages: in manufacturing, 19, 265-6; low wage employment, 132, 270; rural/urban comparisons, 11, 265
- Water supply, 59, 62-3; population served with piped water, 62
- Wildlife: dangers to, 37
- World Bank, 2, 151, 201