

ECONOMIC GROWTH & UNEVEN DEVELOPMENT:
AN ANALYSIS OF THREE REMEDIAL STRATEGIES
IN PENINSULAR MALAYSIA

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Submitted to the Department of Urban Studies
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ABSTRACT

This thesis examines uneven development and dependency in a less developed country--Peninsular Malaysia-- and analyzes three regional/rural development strategies used by the Government to redress some of the problems generated during the course of economic growth. The usefulness of growth pole and dependency theories are raised.

Economic and geographic polarization trends in Peninsular Malaysia are traced from its colonial roots to the present, and their main causes identified. Industrial growth, pursued by official policy, further strengthened trends in inequalities. The policies are causally linked to those economic paradigms and theories from which they originate. Import substitution and export-led industrialization are examined in terms of their polarization effects on the society.

The failure of industrialization strategies to narrow economic, social, and spatial gaps led planners and policy-makers in Malaysia to place greater emphasis than before on rural and regional development. The strategies aimed at rectifying trends in inequality are: in situ agricultural development (the MUDA Irrigation Project), land development and settlement (the FELDA Scheme), and regional integrated development (the Pahang Tenggara Scheme). They are evaluated in terms of their own goals for socio-economic improvement as well as in terms of their propensities to generate new dimensions of inequality and dependence.

Generally, the analysis indicates that dependency theory can provide a useful approach to regional analysis, although it has limitations in explaining the concrete mechanisms of change caused by the development projects examined.

Thesis Supervisor: Karen Polenske
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Abbreviations

-	Zero or Negligible
n.a.	Not Available
M\$	Malaysian Dollar ("Ringgit")
Sdn. Bhd.	Sendirian Berhad (Company Limited)
FA	Farmers' Association
FAMA	Federal Agricultural Marketing Authority
FEER	Far Eastern Economic Review
FELCRA	Federal Land Consolidation Rural Authority
FELDA/ FLDA	Federal Land Development Authority
FMP	First Malaysia Plan (1966-70)
FTZ	Free Trade Zone
GR	Green Revolution
IBRD	International Bank for Reconstruction & Development (World Bank)
KEJORA	Kemanjuran Johor Tenggara (Johor Tenggara Development Authority)
KETENGAH	Kemajuan Tengah (Trenngganu Tengah Development Authority)
KSLDA	Kelantan State Land Development Authority
LDC	Less Developed Country
LPN	Lembaga Padi Negara (National Padi and Rice Board)
MADA	Muda Agricultural Development Authority
NEP	New Economic Policy
PERNAS	Perbadanan Nasional (national Body)
PETRONAS	Petroleum Nasional (National Petroleum)
RIDA	Rural Industrial Development Authority
RIS	Regional Integrated Scheme
RISDA	Rural Industry and Smallholders Development Authority
SEDC	State Economic Development Corporation
SMP	Second Malaysia Plan (1971-75)
TMP	Third Malaysia Plan (1976-80)
UMNO	United Malays National Organization

CHAPTER 1: INTRODUCTION

1.1: The General Concerns of Regional Planning

Regional planning theories practised in Malaysia and in many less developed countries (LDCs), like economic development theories, have their origins in the Western Anglo-Saxon tradition. The relationship between these two disciplines is a very close one, for they share the same philosophical foundations, grounded in the neo-classical school of economic thought. Although regional planning has traditionally concerned itself with spatial structure (i.e., the geographical and locational aspects of development), it cannot be separated from economic questions since the nature of the economy is the chief determinant of people's standards of living, the improvement of which is the purported goal of regional planning.

Regional planning is concerned with two major sectors of economic activity, the growth sector in which investment and capital accumulation takes place, and the lagging or backward sector. In the growing sector, regional planning is mainly involved with the question of where best to locate industries from the firms' point of view, that is, of profit-maximization. The growth of the regional sciences is the result of this emphasis on resource allocative efficiency and cost minimization. In the lagging sector is seen the other side of growth, that is, non-growth, backwardness, poverty, and depression. Regional planning, tries to resolve this problem.

Industrial location theory has been developed to meet conditions in advanced countries where there are many location choices to be made and where market mechanisms function more smoothly than in LDCs.

Inadequate as they are for predicting firms' location choices, sophisticated quantitative methods have nevertheless been developed as forecasting tools (e.g., market area analysis, and simulations). In LDCs, the choices for a firm's location are often very limited, and they tend to be less dependent on market forces than on government policy, which offers incentives to firms to locate in certain predetermined industrial zones.

The motivation of LDC governments in earmarking zones for industrial development is also governed by broader institutional and social considerations rather than pure economic ones. Governments in the recent history of LDCs have been forced to turn to regional planning due to pressures resulting from spatial (regional) inequalities in development. Regional planning has become necessary in government economic policies because of the inability of the market to achieve an equitable pattern of spatial growth.

In a 1951 United Nations report on economic development in LDCs, regional planning was not even mentioned because it was inconceivable at that time that national macro-planning would not produce equitable growth (United Nations, Department of Economic and Social Affairs, 1951). Four years later, in a critique of this report, John Friedmann raised the importance of regional planning in solving the problem of lagging regions in Haiti. Subsequently, further studies showed that inequality was an outcome of development as envisaged by orthodox economics, and hence, regional planning was needed to reduce interregional gaps. It is in this light, which the negative aspect of economic development rather than the positive, that regional planning has

ascended to importance in LDC development policies.

1.2: Scope of Thesis

This thesis concerns economic development and regional planning strategies in a LDC--Peninsular Malaysia. To understand the relationship between economic development and the resultant need for regional planning, the historical development of Peninsular Malaysia will be analyzed, beginning with the British colonial period in Malaya (the former name for Peninsular Malaysia and Singapore). The framework of analysis used here is that the way in which integration of Malaya into the world market system occurred during colonialism produced a set of economic, social, and regional inequalities in Peninsular Malaysia. These inequalities underwent some transformations during the post-colonial period when attempts at industrialization were made. The forms that industrialization took and their resultant impact on the existing pattern of inequalities in Peninsular Malaysia will be discussed. In this respect, we shall demonstrate the polarizing effects that industrialization brought about; in particular, that industrialization was basically confined to a small sector of the population as well as being located in the already-developed spots of the country.

An underlying theme throughout this thesis is that there is dynamic polarization and uneven development moving within the social and economic milieu in which "development" takes place; that is to say, polar opposites, contradictions and tensions are created in the historical process of development, producing inequalities, unevenness, and dependence within the social and economic structure. A certain extent of unevenness is expected in any social process at

any time, and it might even be argued that unevenness reflects problems that need to be resolved. It is not unevenness per se that is being investigated, but the nature and trends in the generation of inequalities that can provide insights into the direction of any society.

In Peninsular Malaysia, the resultant inequalities of economic development erupted in a political crisis in 1969. Racial conflicts stemming from the unequal ethnic pattern of distribution threatened the stability of the country and economy. Following this crisis, the political need for more economic and regional planning was articulated in the New Economic Policy (NEP). This policy essentially called for greater resources to be employed for the benefit of the Malay population, most of whom were still locked into traditional modes of production. Modernization, urbanization, and industrialization became the key words of the day. The NEP was essentially an attempt to rationalize even further (in the sense of capitalist rationalization) the economy.

This ambitious program could not be realized using a laissez-faire approach (as evidenced by the failure of pre-1970 programs to improve the economic position of the Malay sector). It required large-scale resource mobilization and the design and implementation of development programs in areas where private concerns would not willingly locate. State corporations or public enterprises became the solution to the growth and modernization of the backward areas.

The attempts to modernize backward regions using this means will be discussed in this paper within the context of three examples in

planning strategies: (a) an in situ agricultural scheme to improve irrigation and crop yields (the MUDA Irrigation Scheme), (b) land settlement and development schemes (the FELDA* Schemes), and (c) a large-scale regional integrated scheme (the Pahang Tenggara Scheme). Peninsular Malaysia's land development program is considered one of the most successful of its kind in the developing world in terms of providing land to the settlers, improving incomes, and contributing to the growth of the national economy.

1.3: Methodology and Organization of Thesis

Keeping the purpose of this thesis and the underlying framework in mind, we shall now lay out the way in which we propose to carry out this investigation. Much of the "regional planning" referred to and discussed here will pertain to economic development and as far as possible, the social aspects of development will be incorporated. Physical planning, which is beyond the scope and intent of this thesis, will not be discussed in detail. The spatial consequences of development and the geographical considerations of regional planning are, however, an integral part of this discussion because of their implications for regional, and hence, socio-economic inequalities.

The structure of the thesis is as follows: Chapter 2 contains a review and discussion of theories of dependency and underdevelopment in order to provide a backdrop for our analysis of the three schemes in Peninsular Malaysia. Dependency theories reject the solutions of

* FELDA is the abbreviation for Federal Land and Development Authority, which implements land settlement and development schemes.

orthodox growth theories, and reformulate LDC problems in development in terms of the specific relationships between LDCs and the advanced industrialized nations. The center-periphery development-underdevelopment theories of the dependistas provide a way of viewing intra-national regional problems, and of understanding some of the complexities of current industrialization (especially of the export-led variety) occurring in many LDCs.

Chapter 3 is an analysis of Peninsular Malaysia's economic, social, and geographical polarization. The roots of this polarization are traced back to the British colonial period, during which Malaysia was integrated into the world market initially as a commercial center and later as a world producer and exporter of tin and rubber. We see that this is an example of classic dependence in which center-periphery relations are explicit with direct control and surplus extraction exerted by Britain over its colony. A discussion of how first import substitution, and then export-led industrialization were adopted and practised in Peninsular Malaysia, is followed by the documentation of polarization in the economic structure and in the spatial distribution of economic activities on a regional scale. The emergence of public enterprises is introduced as one main contributor to economic polarization in this chapter.

A change in Malaysia's economic development strategy came about in 1970, after the racial riots of 1969, which have been interpreted as the dissatisfaction of the Malay community over its declining share in the fruits of development. Specifically, in the decade or so between independence and 1969, rural poverty increased, economic

stagnation threatened to plague the (Malay) peasant sector while industrialization boomed in the urban areas where most of the Chinese population lived. The stated goals of the NEP are: (a) eradication of poverty, and (b) restructuring of racial imbalances in the urban sector. These goals gave rise to the blueprints for the next decade of development--the Second Malaysia Plan (1971-75) and the Third Malaysia Plan (1976-80). Policies and actions after 1970 have to take this important change into account, bearing in mind that this critical political factor underlies much of the commitment to, and successes in, development efforts.

In chapter 4, a brief review of Peninsular Malaysia's approaches to rural development is followed by the analysis of the three types of rural development strategies previously mentioned. All three are intended to improve income levels, to develop rural areas, and , because of their locations, to enhance the quality of life for the Malay community. Only the Pahang Tenggara scheme is urban-oriented, and is therefore able to help in attaining the "urbanization" goal for the Malays. Embodied in the three schemes is also "social development." We shall see how this concept is applied in the three cases and whether any success has been achieved at this level. Consistent features in many modernization or development programs are intensive capitalization and the invariable import of foreign concepts of development, technology, and methods of planning. This hints at some of the new social relationships (and problems arising therefrom), being formed in the areas affected. Much of this discussion centers around how regional planning instruments deal with

one set of perceived inequalities, while the process of change itself generates yet further inequalities.

The final chapter, chapter 5, provides a summary of the main arguments in this thesis. An attempt has been made to compare and contrast the three strategies of development in order to clarify their potential in terms of income distribution, employment generation, and social development. Finally, some concluding remarks on the usefulness and limitations of dependency theories are given.

CHAPTER 2: DEPENDENCY THEORIES OF DEVELOPMENT

The laissez-faire strategy of development in Malaysia ended soon after independence when the government formulated an industrialization strategy based on import substitution. The roots of import substitution go back to a body of economic thought that stands outside standard economics. This view that basically questions the assumption of standard economics that it is best for LDCs to be integrated into the global economy if they want to develop, is subsumed here under the general heading of the Dependency School. Hence, import substitution is one way of asserting some independence from the world market that is dominated by a few industrialized nations.

This review of dependency perspectives can be used in the course of our analysis of Malaysia's uneven growth and its subsequent remedial efforts. The earlier literature on dependency dealt mainly with country-to-country relations in the classic dependency framework. More recent analyses of dependent development are focussing on the relationships within a LDC as internal structures become more and more involved in relations with the external market. The dependency framework can also be used to understand regional planning issues. As in the case of national development, the analysis of regional strategies must take into account the core-periphery hierarchy of relations and the generation of relationships in which dependency exists. Dependency in a spatial context is only one consequence of unequal development, and regional analyses have to be seen in a social and economic framework as well as a spatial one. The more recent works on dependency have shown that there is no simplistic

application of its theories to LDC development.

The traditional argument in international trade theory is that not all countries need to industrialize because specialization in the economic activity in which a country has a comparative advantage together with trade among countries, will lead to increased benefits for all parties concerned. Hence, industrialized countries already have the comparative advantage, while LDCs, being late-comers, are mainly strong in agriculture, both should continue to specialize and to gain from exchange. This trade model operates within a set of restrictive assumptions that do not often apply in reality. The idea in traditional economic development and international trade theory is that LDCs will benefit from involvement with developed countries through commercial and other ties.

Dependency theory reverses many of the traditional assumptions of, and arguments for development and improvement of general living conditions in LDCs. It emerged as a result of the failure of Latin American development in general and the failure of the import substitution model in particular. The dependency school of thought began with Raul Prebisch's structuralist dependency model and was expanded by Andre Gunder Frank who tried to explain Chilean and Brazilian (and later the whole of Latin American) development by starting the analysis from the empirical conditions rather than from traditionally accepted Anglo-Saxon models of development. The resulting theory represented one of the earliest attempts by Third World intellectuals seriously to assess the realities and to derive a coherent theory of development in LDCs.

Since Frank expounded his famous theory of the "development of underdevelopment," there have been continuing debates over the nature of dependency theory and subsequently, reformulations have been attempted. The purpose of this thesis, however, is not to extend this debate in an academic fashion, but to apply its central concepts to the understanding of development in a particular case context. Hence, not much time will be spent on delineating the nuances between various dependistas. The main issues in dependency theory will form the focus of this discussion.

David Booth suggests that Frank's theory of dependency and underdevelopment was an outgrowth, not of the Marxist tradition as many think, but of the Prebisch school which first identifies the concept of a core-periphery structure for analyzing structural inequalities between center and periphery countries (Booth, in Oxaal et al, 1975). Frank has gone very much beyond his predecessors by including a historical dimension to his analysis and by developing the concepts of "dependence" and "underdevelopment" into a paradigm. This was how he began his first book on underdevelopment:

"...underdevelopment in Chile is the necessary product of four centuries of capitalist development and of the internal contradictions of capitalism itself. These contradictions are the expropriation of economic surplus from the many and its appropriation by the few, the polarization of the capitalist system into metropolitan center and peripheral satellites, and the continuity of the fundamental structure of the capitalist system throughout the history of its expansion and transformation, due to the persistence or re-creation of these contradictions everywhere and at all times. My thesis is that these capitalist contradictions and the historical development of the capitalist system have generated underdevelopment in the peripheral satellites whose economic surplus was expropriated, while generating economic development in the metropolitan centers which

appropriate that surplus and, further, that this process still continues." (Frank, 1967;1).

He basically said that the expansion of capitalism from the core was the cause of underdevelopment and dependency in the periphery. The core-periphery concept had been expanded such that there was a hierarchy of core-periphery relations existing between countries as well as within countries, extending into the social and economic fabric of peripheral societies. The main internal contradiction of capitalism which propels capitalist expansion is the expropriation of economic surplus of the many by a few, "everywhere and at all times."

Underdevelopment, the result of this exploitative relationship, becomes the lot of the expropriated. By underdevelopment, Frank refers to economic, social, and political characteristics, such as low productivity, low incomes, inability to sustain continued industrialization, stagnation of economic activities, poor social services, and the attendant social ills of poverty. He cites as examples, the Brazilian experience as the clearest case of both national and regional development of underdevelopment (Frank, 1967). The expansion of the world economy since the beginning of the sixteenth century successfully converted the North-east, the Minas Gerais interior, the North, and the Center-South (Rio de Janeiro, Sao Paolo, and Panama) into the export economies and incorporated them into the structure and development of the capitalist system. Each of these regions experienced satellite development in which there was an apparent age of prosperity, but which was neither self-sustaining nor self-perpetuating. "Dependence" was such an integral feature of underdevelopment that in Brazil's case, there was little

possibility of an independent internal dynamic arising from its initial colonization by the center.

Frank's use of the "underdevelopment" and "dependence" to characterize development of the periphery has had its critics. Several of these are important to our analysis because they allow us to examine (a) problems in a single-country context (e.g., regional development), and (b) in cases where industrialization occurs through ties with the core, why "development" and dependence can occur simultaneously. These are:

External versus Internal Dependence: External dependence refers to the unequal relations between countries, namely between metropolitan and satellite, while internal dependence refers to relations within a satellite country. Frank's critics objected to his focus on dependence between countries, and neglecting to pay attention to internal dependence. However, it has been argued by Frank's defenders and subsequently by Frank himself, that this was not the case and that although he took external dependence as a starting point (given that the dominant feature of Latin America's problems was its relations with the core), he in fact recognized the importance of a country's internal contradictions and class structure. He considered the local bourgeoisie, who had close ties with the metropolitan areas incapable of acting independently. By rejecting reformistic solutions posed by the import substitution model and of other dependistas (which relied on the national bourgeoisie as the alternative to domination by the core), Frank was implicitly acknowledging the significance of internal dependence in

analyzing LDC development in a single-country context.

The Question of Whether Dependence and Development Can Occur Simultaneously:

Dependistas after Frank have pointed to the existence of industrialization in certain countries, while a dependent status on the core is retained (Cardoso, 1973; and Lim, 1978). In the 1970s, many LDCs (for example, Hong Kong, South Korea, Taiwan, Southeast Asia) experienced the electronics and textile booms, which accelerated development in their industrial sectors. Though industrialized in a limited way, there was no question that that particular form of development was heavily dependent on foreign investment and control, that the surplus was being transferred out of the LDCs, and that the process of development was usually moulded by metropolitan interests in conjunction with sectors of local capital. Vigorous industrial development can occur with high productivity in the periphery, but it tends to occur very unevenly and only in pockets, benefiting only part of the population.

Cardoso has termed this "dependency with development" model "associated-dependent development," in which it is possible for local sector(s) to have rapid economic growth (especially in the urban sector), and to even have its (their) own dynamic. These sectors, usually capital-intensive, are the result of multinational corporation involvement. The local dynamic generated is, according to Cardoso, a limited one because of the nature of production activities that are linked up to international circuits (Cardoso, 1973; 163). This local dynamic occurs through the incorporation of local sectors of the economic, political, and social elite into the structure

of production. Based on concentration of income and wealth, this type of development does not reduce inequalities, but in fact, has a marginalizing effect on certain sectors of the economy. This situation may still warrant the concept of "underdevelopment," though with some modifications made to its forms of existence as the classical forms of foreign investment in plantation and mineral sectors evolve into investment in manufacturing areas; hence, it may be seen to produce "development."

In asking the question of how useful "dependency" is in analyzing development in LDCs, it is pertinent to answer the question of its usefulness in relation to the following: concept, paradigm, and theory.

Judging from empirical studies, "dependency" has certainly been a key concept in the recent history of LDCs, and especially of those countries which had been colonized. As we saw, in traditional development economic thought, "dependency" was not important, because the particular method and approach to development used by neo-classical economists viewed LDCs as moving away from backwardness. The dependistas, however, have raised "dependency" to the level of a paradigm precisely because they see just the opposite effect in developmental efforts in LDCs: that LDCs are moving towards, rather than away from, dependence on advanced and industrialized countries. They see dependence to be a consistent feature in the experience of LDCs, and therefore have incorporated the concept of "dependency" into a general perspective in understanding LDC development. The theories that have been formulated within the dependency paradigm are many and

varied. It is at the level of theory, that is, in the linking up of specific concepts and finding causal relationships and mechanisms, that "dependency" appears to be most lacking. Simplistic theories originally formulated fitted empirical conditions of particular historical periods, as, for example, the underdevelopment thesis developed by Frank. These, however, were found to be inadequate as the forms of dependency changed, such as in the discovery that dependency and development could exist simultaneously. It is not clear that there is a central thesis underlying these various theoretical formulations of "dependency." What has been established from these debates, is that no simple external relation exists in dependent relationships, and that internal factors--social and political relationships--are moulded by, and in turn mould, the whole process of development, and hence the expression of those relationships.

The dependency view of development can be applied to Malaysia at several levels of analysis. In the remaining chapters, we shall examine the ways in which Malaysia's development strategies have tended to perpetuate dependency in both economic and social, inter- and intra-class, terms.

CHAPTER 3: INDUSTRIALIZATION, POLARIZATION, AND UNEVEN GROWTH

3.1: Introduction

In the remainder of this thesis, we shall analyze the regional planning strategies used to overcome social, economic, and spatial inequalities in Peninsular Malaysia. Chapter 3 provides an overview of Peninsular Malaysia's post-colonial industrialization policies, which reinforced, rather than reduced, its patterns of uneven social, economic, and spatial development. While agricultural and rural development were not entirely neglected during Peninsular Malaysia's industrialization phase during the late 1950s and 1960s, public and private resources were directed in favor of urban (industrial) development at the inevitable expense of the rural sector.

Industrialization, as we have observed, has tended to produce large-scale urbanization and distinct gaps between urban and rural economy and society. Peninsular Malaysia was not an exception; however, due to its size and to the continued importance of its agricultural exports, the extent of urban-rural cleavages was not as developed as in some other developing countries. Still, gaps (such as in incomes and productivity) persisted to the detriment of those less capitalized rural sectors (smallholders, peasants, and fishermen). The ensuing imbalance between the urban and rural sectors persisted partly as a result of an economic philosophy that fostered uneven development.

Chapter 3 begins with an overview of the status of economic development and the pattern of urbanization at the end of colonial rule in 1957, which also marked the beginning of a period of

industrialization. This discussion will be followed by a review of the theories of development that influenced Peninsular Malaysia's planning strategies. For most LDCs, including Malaysia, political independence also meant a concurrent shift away from primary production. The main strategy employed was import substitution, which will be examined in some detail in order to understand its nature and limitations in the Malaysian context. In the wake of the perceived failure of import substitution, a new strategy was adopted in Peninsular Malaysia's industrialization; this was export-led industrialization. The beginning of the 1970s in Malaysia's economic development was marked by the implementation of the NEP. The concomitant rise of public enterprises represents the beginning of large-scale state intervention in Peninsular Malaysia's development. In the concluding sections, we shall examine resulting trends in economic and spatial polarization, these being the consequences of Peninsular Malaysia's development experience in its first decade of independent rule. This sets the stage for the next chapter in which the focus will be on rural and regional development policies and their application in Peninsular Malaysia.

3.2: The Colonial Legacy in Malaysia

3.2.1: The Colonial Economy

The colonial economy in Malaya was well-known for two primary products--rubber and tin. The consideration of these two commodities, and especially rubber, dominated colonial decision-making and shaped the production structure in the main sectors of the economy.

The first World War greatly accentuated the importance of

rubber to the colonial economy. Total exports rose from 23,720 tons in 1913 to 106,453 in 1919, their percentage share of the value of all Malayan exports rising from 38.1 percent in 1913 to 67.4 percent in 1919 (Caldwell, 1977;38). In 1919, the Malayan rubber industry set an all-time production record, accounting for more than half the total world production. The high returns on investment in rubber inevitably drew investors to set up large-scale plantations. In this, private investors were readily supported by the colonial government whose land, labor, and cultivation policies clearly benefited these investors.¹

Malaya's contribution to the recovery of British capitalism after 1945 can be gleaned from the following statement made by a Tory Member of Parliament, Walter Fletcher:

"... the value of Malaya to the British Empire cannot be overemphasized. The Chancellor of Exchequer must be keeping an eye on this The rubber shipments from Malaya alone total more than the direct imports from this country to the U.S.A." (House of Commons, 15 September, 1948, cited in Caldwell, 1977;157)

¹The British instituted a legal system based on private property rights and the contract system wherein land was made a tradeable commodity. All land other than those under Malay customary tenure became the property of the State and this caused the traditional usufructuary rights of the cultivator to be denied.

Immigration wage labor (Indian and Chinese) was introduced to work in the tin and rubber industries. Immigrants were prevented from acquiring land (and thus from abandoning wage employment) through protectionist land policies, e.g., Malay Reservation lands.

Colonial cultivation policies typically restricted certain lands to specific crops. Rubber was one of them. The Malay peasantry thus became relegated to the continuation of their agricultural pursuits, i.e., mainly padi-planting, but on an enlarged scale so that some of the subsistence requirements of the immigrant population could be met as well.

3.2.2: Spatial Patterns of Colonial Development

The spatial distribution of economic activities in the colonial era closely followed the needs of the same two primary industries (rubber and tin) and of the colonial administrative apparatus. Peninsular Malaysia has experienced uneven development between the western and eastern regions on the one hand, and between the northern and central-southern regions on the other. Some of the indices of comparison used are the extent of urbanization, infra-structural facilities, social services, share of Gross Domestic Product (GDP), income and productivity levels, and size of administrative organizations. This pattern of development is the product of the country's historical evolution, first as a commercial and trading center, and later as the primary producer of rubber and tin.

Trade and commerce between foreigners and locals had initially spread into Malaya from the Straits of Malacca (adjacent to the west coast of the peninsula), which was easily accessible from Indonesia, India, the Middle-East, and Europe. The Chinese traders, coming from the northeast, nevertheless made their way around the southern tip of the peninsula to the west coast, where trading opportunities were more abundant. When the Portuguese, Dutch, and British in turn colonized the various parts of Malaya, they set up trading settlements in the western coastal areas of Penang and Malacca. And, when the British found it profitable to shift from mere trade and commerce to engage in productive activities, they acquired those areas on the west coast where natural resources existed.

Tin mining, first developed by immigrant Chinese labor, was

already in existence in two states, Perak, and Selangor. The British later moved into the tin-mining industry when the demand for tin rose. They were able to dominate the tin-mining industry with the help of colonial government policies such as in land leasing and licensing. They were also aided by their access to more sophisticated and efficient forms of technology in mining, as for example, in the use of capital-intensive tin-dredging. The tin industry has been traditionally associated with immigrant Chinese labor, who mainly came as indentured labor under the auspices of Chinese towkays (bosses), and later under British sponsorship. Many settled in areas where they worked, i.e., in the tin-mining areas.¹ Because of the particular circumstances under which the Chinese came to Malaya, they did not assimilate nor disperse into the rest of the country. They were dependent on the colonial structure in many ways and they adapted themselves to the needs of the colonial economy in order to survive.² This created a spatial ethnic differentiation that has now become the basis for many regional and economic development policies. Not only were the Chinese mainly settled on the more prosperous

¹Apart from the immigrants, there were those who came independently or to join relatives; their reason for leaving China being the harsh economic conditions there. Those who were not employed in tin-mining engaged in a variety of urban-oriented activities such as market gardening, poultry-rearing, cottage industries, and middlemen activities between rural and urban areas.

²On the other side of the picture, there was little opportunity for them to become padi farmers and to integrate into the rural economy other than as middlemen. This was because of colonial land and cultivation policy which explicitly prevented Chinese from owning certain lands and from cultivating rice, the traditional crop of the Malay peasantry.

zones (such as the south and central parts of the western coastal areas), but they were relatively predominant in the urban areas in all parts of the country. Table 3.1 shows that Chinese in urban areas exceeded fifty percent of the urban population between 1931 and 1970.

Table 3.1: Peninsular Malaysia--Ethnic Composition of the Urban Population, 1931-70

census years	urban population	Proportion of urban population(%)			
		Malays	Chinese	Indians	Others
1931	570,513	17.3	54.0	17.5	11.2
1947	929,928	19.0	63.1	14.7	3.2
1957	1,666,969	21.0	62.6	12.8	3.6
1970	2,530,433	27.6	58.4	12.7	1.3

source: Narayanan, S., "Patterns and Implications of Urban Change in Peninsular Malaysia," in The Malayan Economic Review, Vol.XX, No.2, October, 1975; 66.

Urban areas tend to have higher incomes and social services, which means that the chances for their population to obtain access to social mobility are greater than for the rural population. This factor has led to widening disparities between Malaysia's two main ethnic groups.

The location of Malaysia's second major industry has also been in the developed zones. Rubber was introduced into Malaya by a Britisher, Sir Henry Ridley, in the early 1900s. The colonial administration began to provide incentives for private investors to plant rubber in order to promote its production in Malaya. The logical choices were those closest to the communication centers along the West Coast. Hence, rubber plantations are found mainly in the states of Selangor, Johore, and Negeri Sembilan, in the "core" region.

We thus end with a map of Peninsular Malaysia that has a relatively well-developed infrastructure and an export economy in the states of Penang, Selangor, Perak, Johore, and Negeri Sembilan on the West Coast, surrounded by the rest of the states in which traditional peasant activities predominate.

The next section provides a summary of the main theories of economic development that have influenced economic development in Peninsular Malaysia.

3.3: Orthodox Theories of Development

Given the tremendous influence that standard development economics has had, and continues to have, on policies adopted by many LDCs including Malaysia, it would be useful to review some of the theories relevant to Malaysia's economic development before proceeding to analyze its development. In the post-colonial period, Malaysia's initial adoption of a laissez-faire economic policy based on the virtues of an open free-market economy followed the heels of a 1955 World Bank report (IBRD, 1955). It was felt, at that time, that over time, inequalities would and could be ironed out by ensuring the creation and operation of a free market system that was open to the international economy. This macro view of a self-adjusting economy was essentially the "balanced" growth model. In Malaysia's case (as with many other LDCs), this economic prophecy proved not to be the case. Economic, social, and spatial trends in inequality appeared to be diverging rather than converging. During this time, a dissenting body of theory in response to these realities grew from within the ranks of orthodox economics. This was the "imbalance"

or "unequal" growth approach, it sought to account for the polarizing tendencies in developing economies. There were two strands of thought in the political economy of this doctrine. One identified the spread of inequality and condoned it, justifying its existence as a necessity for free enterprise to work. The other used this analysis to oppose inequality and to advocate state policies to counter polarization trends in the economy. Most LDCs have adopted variations of the latter posture because the experiences of LDCs in general, have shown that some form of intervention is politically necessary to maintain viable states. The results, as expected, are extremely varied depending on how and why policies were carried out.

3.3.1: The "Balanced" Growth Approach in Regional Planning

This model assumes the more-or-less smooth operation of market mechanisms that will cause supply and demand functions to shift until marginal rates of return in competing sectors are equalized. In the case of inter- or even intra-regional differences in LDCs, factors of production will move to activities and places where the rate of return is higher until all rates of return are equal. One assumption to this theory is that factor mobility exists, that the forces which bring about "balance" and "equilibrium" in the market system actually operate. In this model, over-urbanization and its counterpart, agricultural backwardness and poverty, are not causes for concern because as more people "vote with their feet" and migrate towards cities, the rate of return to labor will increase in rural areas and decrease in urban areas until a wage equilibrium is achieved between city and countryside. Resource allocation, left to the market, will

yield the best overall results (Robinson, 1969;Chapter 1). Regional planning is therefore not needed to direct resource investment, but merely to play a supportive role in reorganizing the spatial structure of economic development.

This view of development as balanced was prevalent in the immediate post-World War II period in the West. While western economies faced problems of insufficient demand (which could be remedied by government "deficit spending" according to Keynesian economics), LDCs, on the contrary, faced problems of insufficient supply of capital equipment and production factors. To solve this problem of LDCs, the United Nations advocated the "economic growth" approach. The model of development adopted was the western capitalist model and the path mapped out was a linear one from underdevelopment to development with industrialization as the key link. The United Nations delineated four basic conditions for "successful" development:

- (a) openness to ties with developed core countries,
- (b) urban-based process of accelerated industrialization,
- (c) high rate of capital formation, and
- (d) national economic planning. (United Nations, 1951)

The emphasis was on regional resource development, efficiency in allocation, rapid capital accumulation, and technical change.

Economics had been established as scientific and therefore objective. Efficiency was, therefore, scientific whereas equity was ethical, normative, and outside the realm of economics. It is important to note here that "balanced" development does not in any sense mean equality in development between regional. E.A.G. Robinson

(1969) was later to provide a rationalization for why little, if anything, should be done about economic backwardness. His view was that overall growth is preferable to saving backward areas; regional poverty is not an imposed condition, but a consequence of deficiencies inherent in the area. If regions are inefficient, then let them not use up precious scarce resources unproductively.

That inequality was an outcome of economic growth was recognized; however, with the economic justification for inequality provided and the belief that balanced growth led to improvement for all under the concept of Pareto Optimality (i.e., a situation where no party may improve its position without worsening that of some other party), this model of development was seen to be the best one.

3.3.2: The Doctrine of Unequal Development

In the mid-fifties, studies on those LDCs practising the aggregative balanced-growth model made by Friedmann (1955) and Myrdal (1957) revealed that very large economic and social gaps continued to exist between regions, and particularly, between cities and rural areas. The expectations of the model had not materialized. Poor regions did not experience improvements in productivity, incomes, and return to factors of production. Gunnar Myrdal's theory of cumulative causation, developed from his European experience, explained the conditions in LDCs as well. He explained that regions experienced positive "spread" and negative "backwash" effects from development efforts. Some declining or backward regions could enter into a spiralling decline away from growth equilibrium, rather than towards it. Typically, these regions

suffer from lack of natural resources that could attract investment. The more depressed such regions become, the less likely they are able to develop their own or attract economic activities capable of generating growth (Myrdal, 1957). Myrdal's theory gave much impetus to regional planning, mainly in the area of correcting or reversing some of these undesirable trends in interregional inequalities. From this, grew a whole body of economic and regional development thought based on "imbalance" and inequality.

Growth Pole Theory

Growth pole theory is based on the unbalanced growth principle. It was, and still is, widely applied in regional development strategies.

The concept of polarization, as originally put forth by Perroux, views growth in economic space as a very uneven process, occurring "... in points or development poles, with variable intensities; it spreads along diverse channels and with varying terminal effects to the whole of the economy." (Perroux, cited in Glasson, 1978;171). Boudeville later applied this concept to the spatial dimension. The theory of growth pole development has found tremendous appeal in both Europe and LDCs. Its high political saleability is due to its potential for reducing interregional gaps through industrial growth.

Although growth pole theory was invented and developed mainly by European theorists (Perroux, and Boudeville), the American, Albert Hirschman, independently noted and developed a theory to explain that economic growth radiated from poles of concentrated economic activity. This made sense in LDCs in which resources for

multisector investment are limited. He hypothesized that the initial phase of a project will provide markets for those portions that will follow. The main idea behind his hypothesis is interindustry linkages among sectors. These linkages may "forward" linkages, where an industry has a high ratio of intermediate industry sales to total sales, or "backward" linkages, where an industry has a high ratio of intermediate inputs from other industries to total inputs. Backward linkages are more powerful as a development tool than forward linkages because they compel development through the process of derived demand, and, therefore, market mechanisms replace the planner. Forward linkages may induce attempts to produce the final product locally, but do not create a market.

Hirschman also introduced the concept of social overhead capital, which is infrastructure facilities--transportation, communication networks, utilities, and other services. The investment in social overhead capital can be used by governments to "lead" development by providing a basis for firms to take advantage of agglomeration economies (Hirschman, 1958).

The term "growth pole" is taken to refer to the original concept of Perroux without any specific geographical dimension; other related concepts, such as "growth centers" and "growth points" which refer to spatial locations, have arisen. Boudeville (1966) has used them to refer to geographical locations in which growth poles exist, and therefore, have no economic meaning. On the other hand, when used in an economic context, "growth center" is taken to mean an area containing industries and firms which develops as a

result of, and which in turn transmits, growth impulses from "true" development poles, but do not themselves initiate these spread effects. (Higgins, 1971). Ottawa, in Canada, for example, is a growth center which would not have developed without the influence of Montreal, the development pole.

There are three basic concepts in growth pole theory:

- (a) Leading industries and propulsive firms: At the center of growth poles are large propulsive firms belonging to leading industries which dominate other economic units. Propulsive firms are capable of stimulating economic growth in other firms and industries. There may be just one single dominant propulsive firm or a core of them forming an industrial complex.
- (b) Polarization effects and agglomeration economies: The rapid growth of leading industries ("propulsive growth") induces the polarization of other economic units into the pole of growth. Implicit in this process of polarization are the various agglomeration economies --economies internal to the firm; economies external to the firm but internal to the industry; economies external to the industry but internal to the urban area.

This economic polarization will inevitably lead to geographical polarization with the flow of resources to, and the concentration of economic activity at, a limited number of centers within a region. Even when the original raison d'etre of such locations disappears, they will often continue to prosper due to the presence of the agglomeration economies.

- (c) Spread Effects: In time the dynamic propulsive qualities of the

growth pole radiate outwards into the surrounding space. The "trickling-down" and "spread effects" are particularly attractive to policy-makers. However, this is the most difficult aspect of the theory to examine, and although there has been some general discussion of the question of whether growth will diffuse outwards from a growth pole, there is little empirical evidence to support the theory that spread effects occur. As Myrdal pointed out, "backwash" effects may dominate over spread effects due to cumulative causation of negative or non-growth effects that causes the region in question to be trapped in a vicious and spiralling cycle of decline (Myrdal, 1957).

Although these basic concepts might intuitively provide a reasonable and dynamic explanation of the industrial clusters or agglomeration in regional spatial structure, some regional theorists have cast doubt on their validity as planning tools. These doubts can be expressed in the following questions: What specific criteria should be used in identifying the location of relevant urban centers for investment? What kinds of investment should be placed in them? Do growth poles grow indefinitely? What about diseconomies of scale? And, do spread effects ever materialize?

These questions will be addressed when examining the third case study on the Pahang Tenggara Regional Scheme, which uses growth pole strategy in its industrial development plan. The theoretical review of growth pole theory is meant to provide a framework for understanding regional schemes in Peninsular Malaysia and some of the

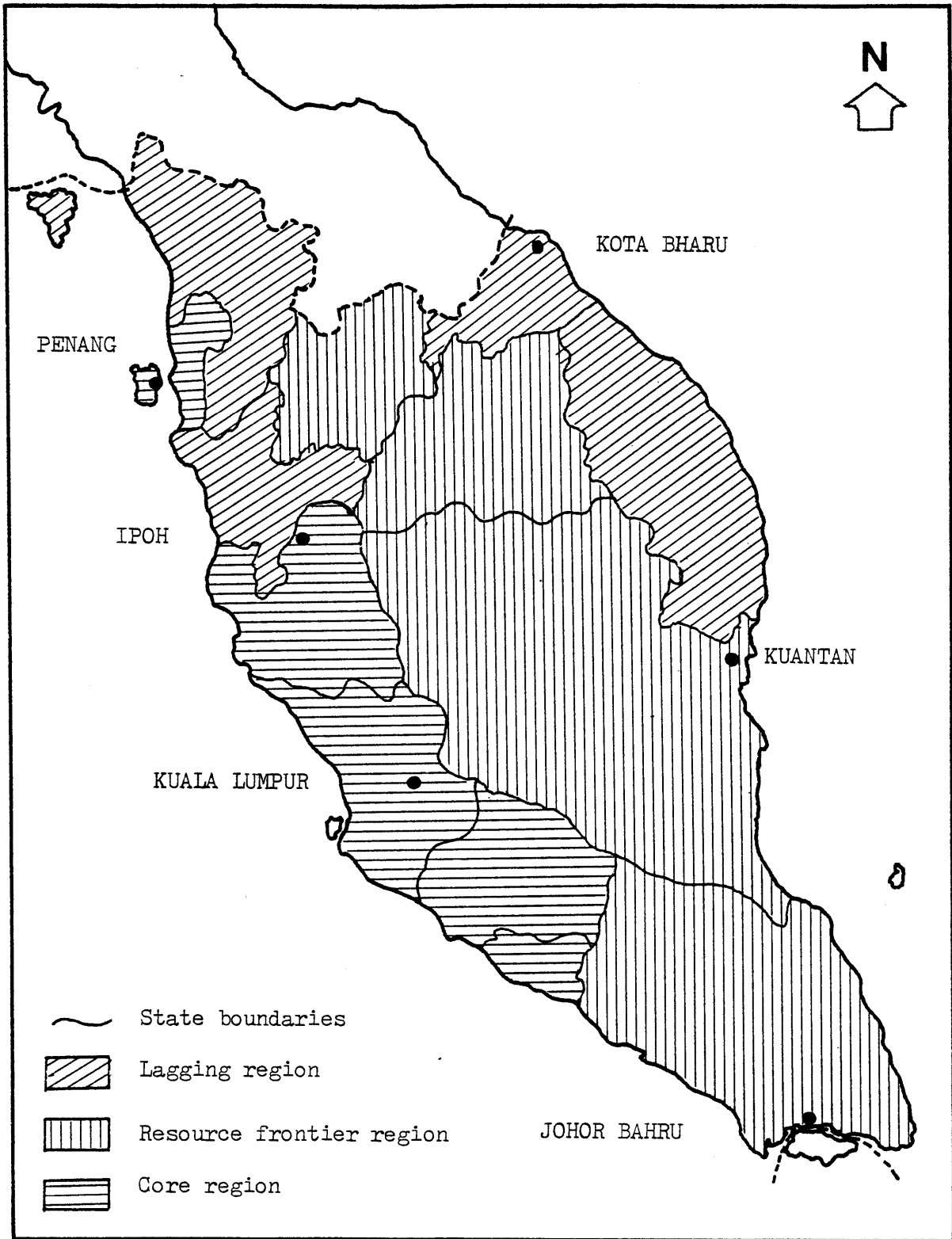
limitations of this strategy. Growth pole theory is one of the most expounded theories associated with orthodox theories of unequal development. Although it was developed in the 1950s and questions have been raised regarding its practice, it prevails as an important concept in regional development. In Malaysia's development plans, it is given occasional reference in the framing of regional policies. Underlying its usage, which has become casual in much of the literature on development, is the belief that spread effects can somehow materialize. In the absence of strong alternatives in the orthodox regional planning tradition, growth pole ideology retains a hold on policy-makers and regional planners.

3.4: Post-Colonial Peninsular Malaysia

3.4.1: The Question of Regions

Due to the relatively small size of Peninsular Malaysia, the debate over whether true regions exist is a continuing one. No doubt, because of the lack of very distinct geographical, cultural, or economic differences that might form the basis for regional divisions in Peninsular Malaysia, regional problems in spatial terms can be very much exaggerated. Nevertheless, from both a historical viewpoint and from the perspective of residents in different geographical areas, there is geographical as well as economic regionalization. The ethnic factor, which coincides with these two concepts of polarization, is the central thread that runs through most of the policies and actual practice. In Malaysia, it is politics, defined in terms of race, that determines development and regional planning; the spatial aspect is merely instrumental and incidental.

Figure 3.1: A Three-Region Description of Peninsular Malaysia



source: Salih, 1975; 61

Kamal Salih (1975) has attempted a three-region description of Peninsular Malaysia into core region, resource-frontier region, and lagging region (see Figure 3.1, page 41). For the purposes of this thesis, we shall adopt this framework for our spatial analysis. The core region at the center of the peninsula, focusses on the Kelang Valley in which Kuala Lumpur, Port Klang, and various other industrial estates are located; Penang itself is a developing area and therefore forms part of the core region. The broad resource frontier region runs down through the middle of the country, and this is where most of the regional land development schemes are taking place.

3.4.2: Industrialization (1947-70): Import Substitution

In the above sections, we discussed how regionalization appeared as a consequence of uneven colonial development. We shall now examine changes in industrial policy in the post-independence period that contributed to urbanization, regional polarization, and regional dependence, reinforcing earlier patterns of uneven development. Import substitution will be the focus of this section since it played a prominent role in the pre-1970 industrialization strategy.

The evolution of industrial policy and the emergence of an urban-regional development policy came in the wake of a World Bank report (IBRD, 1955) which essentially recommended that Malaysian industrial development be based on the fundamental role of free enterprise. Following this recommendation, the Pioneer Industries Ordinance (which protected industries behind tariff walls and tax incentives) was introduced in 1958 to provide a favorable climate for industrial development. Industrialization policy concentrated

on efforts to promote the development of infrastructure and to maintain a climate friendly to both foreign and domestic private enterprise. It was left to the private sector to build up the industries, virtually free from control. Taxes and tariffs were kept low and investment incentives, such as accelerated depreciation, were granted. During the 1960s, this strict division of labor between public sector (infrastructure) and private sector (investment for industrial production) was slightly modified. The granting of tariff protection to new industries, which began in 1964, and the income tax reform of 1967, which gave investment incentives to new industries, were the two major steps in this direction.

The reasons for moving away from the laissez-faire industrial policy of the 1950s were as follows: the colonial pattern of production had remained unchanged. Malaysia's economic development throughout the colonial period was based on primary production and hence, on trade. In 1957, the year of independence, the primary sector accounted for over 45 percent of the gross domestic product (Lim,1975;2). The tertiary sector, which consisted mainly of supporting activities for the primary sector, accounted for about 44 percent while manufacturing activities made up the other 11 percent (Lim,1975;2). In the same year, gross export proceeds constituted nearly 47 percent of the GDP, indicating a large export sector, which in turn was dominated by the rubber and tin industries. Earnings from the two industries accounted for 85 percent of the gross export earnings or 40 percent of the GDP (Lim,1975;2). The supply curves of rubber and tin are relatively

stable as the production of neither commodity is significantly affected by the vagaries of the elements. However, such stability is more than offset by demand instability and by price inelasticities of supply and demand. The result is a fluctuating export sector, which then transmits its instability to the rest of the economy. The investment climate may be adversely affected and together with the administrative bottlenecks created may slow down the rate of growth of the economy, according to David Lim's study (Lim, 1975). In the early 1960s, there was a sharp decline in earnings from rubber exports; although this was offset by increases from tin, palm oil, and timber exports, it still meant a reduction in the rate of growth of exports.

Social consequences from the adoption of a classical export system came in the form of a rising level of unemployment. In 1957 the population was growing at 3.4 percent. The rubber and tin industries were able to absorb the initial increases of the labor force prior to 1957. However, as with first, the decline in price of rubber, and second, the depletion in the known deposits of tin, the two industries found it increasingly difficult to maintain their traditional role as the main source of employment. The level of unemployment, especially among the young Malays from rural areas, began to rise and the ensuing social pressure became yet another factor calling for change in the colonial pattern of production.

The strategy to improve the rate of economic growth espoused an industrialization and an agricultural development strategy. The industrialization strategy was based on import substitution, export

expansion (especially after 1963) and domestic demand expansion. Many newly-independent countries, especially in Latin America, had adopted import substitution as a way of reversing trends in the declining terms of trade of primary production and to become less dependent on the industrialized nations for light consumer goods. In Malaysia, public infrastructure investment resulted in a construction boom, which created a favorable climate for manufacturing investment. There was a two-edged effect to infrastructural investment in that it provided backward linkages, thus stimulating growth in the related sectors, and forward linkages in that facilities for new investment are provided (Power;4). The agricultural development strategy, on the other hand, was based on developing rural infrastructure and export-oriented agricultural diversification policy, with oil palm as one of the more profitable crops grown. The rice industry, was also considered for modernization, and in essence, belongs to the import substitution category.

The need for protection of those industries marked out for import substitution invariably fell in the light consumer goods category; however, other consumer goods that constituted a huge share of imports, such as rice, were also included. The need for protection of one form or another raised objections from other interests that would be adversely affected by the distortion in resource allocation and in market prices. The plantation owners feared the effects of a higher cost of living on workers' wages brought about by tariffs and increased cost of locally manufactured goods. Large agency houses (a remnant of colonial times) wanted to

defend their interests in the import-export business; the Treasury preferred tariffs to be used for revenue rather than for protection of new industries; and, Malays may have felt some reluctance about favoring urban (Chinese) areas over rural areas.

Malaysia had a fairly successful industrialization experience as far as output growth was concerned¹. The 1960s witnessed the establishment of a large number (more than 4,000) of industrial enterprises that are concerned with the production of a wide range of consumer, intermediate and investment goods--most of which are import substitutes.

Import substitution in consumer goods occurred principally in the food industries, perfumes, and cosmetics, automobile assembly, and bicycle producing industries. For investment goods, import substitution was most rapid and evident in the basic metals and electrical machinery industries. Among intermediate goods, import substitution was most pronounced in the industries producing petroleum and coal products, animal feeds, textiles, leather products, and paper products (Hoffman and Tan, cited in Lim, 1975;143). According to Table 3.2, import substitution and domestic demand expansion were the major sources of industrial growth from 1959-63,

¹In the 1960s, the manufacturing sector in Peninsular Malaysia had grown at a rate of 11.5 percent per year as compared to 5.6 percent for GDP. In 1960; value added in manufacturing contributed 8.5 percent to GDP and 14.8 percent in 1970 (Hoffman and Tan, cited in Lim, 1975;137).

Table 3.2: Intersectoral Analysis of Gross Output Growth Sources
(percentage distribution)

Industry group	Import Substitution	Export Expansion	Domestic Demand Expansion
1959-63			
consumption goods	59.24	-	53.95
intermediate "	25.68	-	28.26
investment "	15.08	-	17.79
TOTAL 27 industries	100.00	-*	100.00
1963-68			
consumption goods	43.16	41.15	42.18
intermediate "	42.91	47.03	44.14
investment "	13.93	11.92	13.68
TOTAL 27 industries	100.00	100.00	100.00
1959-68			
consumption goods	47.37	37.04	47.64
intermediate "	37.96	56.48	36.99
investment "	14.67	6.48	15.37
TOTAL 27 industries	100.00	100.00	100.00

* Overall export expansion was negative so sectoral shares were not calculated.

source: Hoffman and Tan, in Lim, 1975; 143

especially in the consumption goods category¹. Export expansion became more significant after 1963, according to the same table, especially in consumption and intermediate goods. The average annual growth rate of manufactured exports from Peninsular Malaysia was 14.2 percent. Exports of manufactured products grew at more than twice the rate of total exports. In 1960 manufactured products comprised less than 5 percent of the total exports, while by 1970, they exceeded 10 percent. It is also significant that the rate of growth of manufactured exports was higher than that of net manufactured output indicating that Malaysia's industries were becoming increasingly export-oriented (Malaysia, 1971).

One of the measures of the success of any import substitution strategy is whether a protected industry can sustain itself and compete on the open market to the extent that it not only satisfies domestic consumption needs, but external needs as well through export. This appears to have taken place from the evidence presented by Hoffman and Tan. One danger in moving to export-oriented production is whether external demands takes precedence over domestic needs. Ideally, once the import substitution industry is established, it would take advantage of economies of scale,

¹Although export expansion was only negligible as a source of growth in 1959-63, the aggregate data hide the fact that a few industries in the consumer goods sector showed already considerable export expansion. These industries produce textile material, soaps, and cleaning detergents, and medicinal and pharmaceutical products. Export expansion was also of some significance in the intermediate goods industries, particularly in those producing petroleum and coal products, paints and varnishes, non-metallic minerals, and textile manufactures (Hoffman and Tan, cited in Lim, 1975; 144).

marketing networks, experience, and so forth to compete more effectively in the international market resulting in export expansion. If this industry is able to achieve a competitive edge in the world market, the question would then be: should more resources be ploughed into further investment in this area where there exists a comparative advantage? Standard international trade theory would say yes, because of the benefits that could be realized from the division of labor (specialization) and trade. In such a case, the dominance of an import substitution strategy would gradually shift towards export-orientation were the rules of the efficiency game to be followed. The classic example of South Korea's specialization in labor-intensive export-oriented goods (textiles, and electronics) is a case in point. The results are dependence on foreign control of production, and dependence on the external market for both demand of its products and for supply of its basic and many non-basic goods. Internally too, inequalities are generated between the societies of the large-scale industrial complexes and the rest of the economy.

In Malaysia, import substitution industries perpetrated existing trends in economic inequalities. Import substitution did not improve the unemployment situation¹ while sharpening regional and ethnic inequalities. The industrial sector's expansion was marked by

¹A study on the industrial structure in 1963-68 showed that policies encouraged capital-intensive rather than labor-intensive industries (McTaggart, 1972;22).

uneven growth distribution. The high levels of protection in import substitution industries meant that this sector was being favored over other sectors, such as the rural sector. Large-scale capital-intensive operations grew faster than small-scale ones as a consequence of the encouragement of such industries by state policy (McTaggart, 1972; 22). Lastly, foreign domination in the manufacturing sector meant that protection had not succeeded in encouraging the growth of domestically controlled industries.

Export-led industrialization offered (a) a solution to the government's unemployment dilemma, (b) foreign exchange, which was badly needed to finance its development programs, and (c) an alternative to the earlier industrialization strategy, which had become unpopular because it favored the fortunes of urban-based non-Malay groups; Also, export-led industries are particularly good for resource-based industries such as wood products, rubber and oil palm products. It was hoped that with dynamic export industries taking the lead, linkages can give rise to a variety of ancillary industries which produce intermediate investment goods. The income and employment effects may also provide new growth stimuli for consumer goods industries (Malaysia, 1973; 147). Export-led industrial expansion in the 1970s has taken precedence over import substitution although the latter continues to develop at a slower pace.

3.4.3: Industrialization in the 1970s: Export-led Industrialization

In section, we shall examine the changes in the industrial structure and the composition of industrial output in the 1970s

through examining the rise of Free Trade Zones (FTZs) and the type of production they engage in. It will be seen that manufactured exports have come to occupy an increasing share of the manufacturing sector and that these exports reflect a relatively narrow range of products. This means that manufacturing production in Peninsular Malaysia is being skewed towards meeting international rather than domestic demands.

Peninsular Malaysia's export potential was promoted in the 1970-75 period, as shown by the impressive export performance of the manufacturing sector during the same period, which increased by about 29 percent per annum compared to the growth target of 15 percent under the Second Malaysia Plan (SMP). The share of manufactured exports in gross merchandise exports accordingly increased from 11.4 percent in 1970 to 23 percent in 1975. The main manufactured exports comprising food, rubber products, industrial and electrical machinery, and wood products, together accounted for 87.4 percent of total manufactured exports during 1971-75. The growth of textiles and electronics was particularly rapid. Electronics, especially, is largely operated by multinational corporations located in the FTZs established in 1971-72. Gross exports of machinery and transport equipment increased by about 26 percent per annum in real terms between 1970 and 1975, mainly to neighbouring countries in Asia (Malaysia, 1976;312).

FTZs were invented to facilitate the growth of export manufactures and to pave the way for large-scale foreign involvement in these industries. They support an enclave economy which has few ties with

the rest of the local economy, except in the use of its cheap labor. They are distinguished from industrial estates by the status of their export products and special investment incentives such as tax holidays of up to ten years, export subsidies, and accelerated depreciation. However, being export-oriented, they do not need tariff protection, unlike the import substitution industries. Firms are allowed to import and export raw materials and finished goods on a duty-free basis. Between 1970-74, more than two-thirds of export expansion was due to export in FTZs. They have also been able to absorb a large amount of surplus labor in the economy. In 1970-74, most of the manufacturing jobs were in FTZ labor-intensive industries such as electronics, footwear, and clothing and textiles (IBRD, n.d.; 53). Their rate of employment of women is higher than men since women are used more frequently than men in line assembly work. Hence, the effect on male unemployment is less. Due to the existing quota in hiring Malays (which was 40 percent according to a 1973 study [von der Mehden, 1973; 30]), FTZ firms have had to import Malay women from rural areas to fulfill their labor needs. The problems of these factory women are well-documented (see "Changing Role of Southeast Asian Women," a Special Joint Issue of the Southeast Asia Chronicle and the Pacific Research, vol.9, no. 5-6, 1979; and Linda Y.C. Lim, "Women Workers in Multinational Corporations: The Case of the Electronics Industry in Malaysia and Singapore," Michigan Occasional Papers, No. IX, Fall, 1978).

A recent number of industrial estates and FTZs in Peninsular Malaysia is given as 59 covering a total developed area of 14,090

acres (Malaysia, 1979; 151). We have briefly indicated the polarizing effects of export-led industrialization in the economy. Some attempt has been made to disperse industry through the dispersal of FTZs and industrial estates. In section 3.6.2, the spatial effects of industrialization will be documented.

3.5: The New Economic Policy and Public Enterprises

The all-encompassing New Economic Policy (NEP) was designed to redistribute equity participation roughly according to Malaysia's racial components. From a 1970 racial breakdown of 2.4 percent Malay ownership, the government plans to shift 30 percent into bumiputra (Malay) hands by 1990. The ethnic Chinese are to boost their control from 35.3 percent in 1970 to 40 percent in 1990, while the foreign sector faces a reduction from 63.3 percent to 30 percent. Since the government harps on the claim that restructuring must take place through growth, not forced acquisition, new capital and business must be formed at a phenomenal rate.

Prior to 1969, the development of a Malay entrepreneurial class was basically in the hands of private groups and individuals. Government aid to the Malay sector came in the form of rural development rather than urbanization of Malays. This laissez-faire strategy was found to be inadequate, as the 1969 Malay response showed, because of difficulties of entry into urban sectors-- manufacturing, financing, marketing, and so forth--which were dominated by foreign and non-Malay interests. As far as urban employment was concerned, apart from public services such as the military, police, and administrative apparatus, segmentation within

the labor market often worked against those background and skills that did not fit in with the urban environment. It was in the context of providing opportunities for Malays to enter the dynamic sectors of the economy that public enterprise beyond the form of statutory bodies like the Railways, National Electricity Board, Port Authority, and other public utilities (which has existed in Peninsular Malaysia even during colonial times) were created. Many of the older public enterprises were not commercially oriented, and their main functions were to provide essential infrastructural services to the general public, and particularly to facilitate the growth of those private industries (tin mines, rubber plantations) where colonial private investment was substantial.

The few exceptions to these basically non-commercial organizations were the semi-autonomous Authority, the Rural Industrial Development Authority (RIDA)/The Council of Trust for the Indigenous People (MARA), and Bank Ra'ayat (People's Bank), which was subsequently relabelled Bank Bumiputra. These organizations lacked the resources, commitment, and drive to significantly alter the status quo for the Malay population prior to the NEP. RIDA/MARA failed to develop more entrepreneurship among Malays¹ while Bank Ra'ayat, once established, proceeded to behave like any profit-oriented bank, doing little

¹This is evidenced by the fact that after nearly two decades only seven percent of small industries' chief executives were Malays (Snodgrass, draft).

to mobilize the savings of the Malay peasants and making far more loans to the more creditworthy Chinese, Indian, and foreign enterprises than to Malays. Following the events of 1969, the growth of public enterprises represented the more aggressive posture adopted by the government to intervene in the process of creating Malay capitalists and bringing more Malays into the urban sector.

Existing agencies with functions relevant to Malay business promotion received much more money, and were under more pressure to achieve, after 1969. MARA's original allocation for 1971-75 was M\$73 million; this was increased to M\$183.4 million in the 1973 Mid-Term Review of the Second Malaysia Plan (Malaysia, 1973; 153-67). The first indication of extensive involvement in industry and commerce was the founding of the National Body (PERNAS) in late 1969. PERNAS and its many subsidiaries have so far formed the main instrument of publicly-sponsored enterprise¹, but they have not been the sole instrument as is indicated by the activities of the State Economic Development Corporations (SEDCs) and the formation of other corporations such as National Petroleum (PETRONAS), founded in 1974. The mushrooming growth of the Plan allocation for commerce and industry, traditionally very small because of the reliance on private enterprise to develop this part of the economy, suggests just how fast these two types of programs have expanded in the past few years.

¹Legally, PERNAS is a private corporation. But it is government-sponsored, run mainly by ex-civil servants and heavily dependent on government actions for its success.

Compared with actual public development expenditure of M\$142 million in this sector in 1966-70, the original SMP (formulated during the early stages of post-1969 program development) allocated four times as much money, M\$584 million; less than three years later, the allocation had doubled again, soaring to M\$1,239 million (Malaysia, 1971; 179-80). At the end of 1974, there were 82 public enterprises with 65 wholly-owned subsidiaries and 185 joint-ventures. The number has grown considerably since (Wong, 1979; 32).

Just how have public enterprises affected the economy during the last decade? Their role in the agricultural sector has been a very significant one indeed and they are responsible for most of the regional planning efforts in the country. We shall take up the subject of their role in rural development in the following chapter. For the present, we shall analyze their effects on the economy as a whole and on the urban sector in particular.

Public enterprises behave much like private corporations, except that they make use of state mechanisms to gain access to opportunities that would otherwise be unavailable to them. Like private corporations, they are usually large conglomerates with subsidiaries wielding direct control over large amounts of capital, over the organization of production activities and over a large sector of the employed population. By virtue of their size, linkages and control over various facets of production, public enterprises increase the degree of economic concentration--capital, labor, production--by large corporate firms. They also have more resources at their disposal to acquire share ownerships of existing corporations, thereby

expanding their effective control in the economy¹.

One thing it seems safe to say is that the supply of capital to Malay entrepreneurs and would-be entrepreneurs has increased substantially. MARA lending, which had been running at around one thousand loans and a few million dollars per year during most of the 1960s, shot up to nearly 6,500 loans and M\$26 million by 1974 (Snodgrass,draft).

With regard to share of employment in public sector over time, due to lack of published information on this subject, Wong Poh Kam (1979;327-28) has derived a consistent trend estimate for all public sector employment over the period 1957 to 1975. This is summarized in Table 3.4, page 58. He concluded that both the civilian and armed forces components of government employment have increased proportionately faster (4.8 percent) between 1957 and 1975 than overall employment in the country (22 percent) (Wong,1979;328).

¹The Table below shows the extent of pyramiding of subsidiaries by three of the public enterprises as well as by the thirteen SEDCs.

Table 3.3: Number of Companies Wholly or Partially Controlled by Selected Public Enterprises

name of public enterprises	number of companies wholly-owned	number of companies with 50% equity or more	number of companies with less than 50% equity	total number of companies
MARA	15	13	6	34
UDA	2	50	25	77
PERNAS	12	20	14	46
SEDCs	23	72	39	134
Total	52	155	84	291

source: Puthuchear, M.C.,1977 (Table 2)

Table 3.4: Estimates of Civilian Employment in Government Sector,
1957-1977 ('000)

year	Estimate A			total	Estimate B
	government services	community services	infrastructure services		government & quasi-government
1957	86	76	31	193	189
1960					191
1962	122	109	29	260	234
1965					244
1967	233	233	38	271	267
1970	144	141	43	328	312
1971					327
1972					343
1973	n.a.	n.a.	n.a.	359	359
1974					375
1975					394
1976					410
1977					435

source: Wong, 1979; 329 (Table 5.22)

3.6: Polarized Growth

3.6.1: Economic Concentration

In the final two sections of this chapter, the trends in Peninsular Malaysia's economic development will be placed in the context of "polarized" or unequal growth. We shall begin with economic polarization and then go on to spatial polarization in the following section.

On examining Peninsular Malaysia's economic trends, we can reject, at the outset, any theories of self-adjustment towards economic equilibrium. The evidence presented in the previous sections points to widening inequalities; hence it would seem that theories which explain development in terms of polarization tendencies are more plausible. The path of uneven development essentially began with the colonial era in which economic and spatial differentiation took a concrete form due to colonial political and economic interests in Malaya. The emergence of large concerns--plantations, trading houses, and tin mines--occurred during that period and led to the consolidation of their hold over the local economy. The post-independence period brought about some shifts within the economic structure to the extent that industrialization and banking became more important in economic growth. A few large enterprises have become dominant in all major sectors of production activities (manifested in large production units having near monopolistic control over the output market), financial activities, and share capital ownership. Because of the existence of interlocking directorships, at the heart of these conglomerates are a few groups/families/individuals,

who own and control their operations (Wong, 1979; 301-9). Wong has documented the high concentration of production in the urban economy at the three levels described. These conglomerates are the result of an alliance between foreign and local capital, the overall structure of which resembles a pyramidal hierarchy of marketing chains; at its apex are a few large wholesale/financial/industrial conglomerates. Because of the concentration of production and control over capital, there is also concentration in employment and the existence of a deeply stratified job hierarchy with managers, white-collar workers at the top and middle levels, and blue-collar workers at the base.

The growth of state corporations has added greatly to the unevenness and the political nature of their existence enables them to grow at the expense of other groups under the mantle of attaining social goals. The relatively high salaries of bureaucrats and functionaries of the public enterprises is only one aspect of its accumulation activities. Over time, the role of the public debt shows an increasing trend (Wong, 1979, Table 5.19; 322). The private and public corporate sectors, because of their size and power, can either expand production faster, acquire control over smaller units through purchase, merge among themselves to become even larger conglomerates, or eliminate existing smaller firms through unequal market competition. The correlation of capital access with size of enterprise and the differential impacts of public policies, which tend to favor larger enterprises over small ones in Peninsular Malaysia, has also been documented by Wong (1979; 349-52). It can be concluded that the trend

in increasing concentration of production control by large corporate firms is a continuing one and is supported rather than reversed by the NEP.

3.6.2: Spatial Polarization

The pyramidal structure previously described has a spatial dimension that will be illustrated here. Although it is possible to identify patterns of spatial polarization into advanced and backward regions or areas, this is not to say that economic concentration does not exist in the areas of low levels of economic activity. Spatial concentration is necessarily related to economic concentration. Industrial activity brings with it division of labor in the factory as well as within the society. Interdependence and in interlocking relationships among industrially-related concerns produces spatial agglomeration, usually identified with urban areas. In Peninsular Malaysia, economic development produced urbanization mainly in the "tin and rubber belt" or the core region. The later period of industrialization accentuated the uneven spatial trends and serious efforts to counter this trend did not occur until the 1970s. Industrialization (initially import substitution and then export-led industrialization) contributed to the geographical polarization by introducing points of highly concentrated activity (in terms of industrial estates and FTZs) along the core region.

There were five states that benefited most from the industrialization programs of the 1960s--Selangor, Johore, Perak, Penang, and Negeri Sembilan. Industrial estates set up in the Kelang Valley (around Kuala Lumpur), Butterworth (in Penang), Kinta Valley (in Perak),

and Johore were clustered around the existing cities to take advantage of their developed communications, transport networks and other conveniences¹. In 1958, 51.1 percent of value added in manufacturing originated in Selangor and another 7.6 percent from oil refineries in Negeri Sembilan (see Table 3.5, page 63). Johore, Penang, and Perak also had a stake in the program but there was little or no Pioneer Industry on the East Coast, in the northeast or in Malacca. Selangor had 23.5 percent of the total number of establishments, but 43.5 percent of the value of total gross sales, and 51.1 percent of total value added. Nearly 47 percent of earnings in industry were earned in Selangor, though only 38.76 percent of the country's full-time industrial labor force was found there. Concentration in Selangor itself is quite marked: 85 percent of the value added in 1968 was accounted for by establishments in the Kuala Lumpur district--effectively the area of the town and its immediate vicinity. This district accounted for 44 percent of all the value added by manufacturing industries in Peninsular Malaysia in 1968 (McTaggart, 1972; 43-44).

Johore, the next most important state in terms of value added, is important for rubber, pineapples, and timber, and has

¹By 1968, there were estates at Petaling Jaya (700 acres) and Batu Tiga (1200 acres) in Selangor; Tasek (370 acres), Menglembu (221 acres), and Kamunting (425 acres) in Perak, the first two near Ipoh and the third close to Taiping; Mak Mandin (325 acres) and Prai (2250 acres) near Butterworth, in mainland Penang; Senawang (330 acres) at Seremban, Negeri Sembilan; and Tampoi (146 acres) and Larkin (154 acres) near Johore Bahru in the state of Johore. Some of the estates had been wholly occupied, while others were still under development (McTaggart, 1972; 14-15).

Table 3.5: State Distribution of Industry, 1968 (percentages)

State	No. of Establish-ments (%)	Value of Sales (%)	Value Added (%)	Employment		Salaries (%)	Population 1970 (%)
				Full-time (%)	Part-time (%)		
Johore	12.48	14.09	12.43	17.69	11.10	14.83	14.51
Kedah	8.59	4.29	2.21	3.94	6.46	3.12	10.82
Kelantan	3.96	1.65	1.46	2.58	6.49	1.53	7.75
Malacca	4.57	2.68	2.03	2.47	4.47	2.06	4.58
N. Sembilan	4.54	8.77	7.68	3.89	3.13	4.89	5.45
Pahang	4.47	1.84	2.38	2.95	1.92	3.61	5.65
Penang	14.99	10.91	9.21	11.92	15.13	10.24	8.73
Perak	18.78	11.64	10.90	14.41	18.21	11.63	17.86
Perlis	0.92	0.27	0.13	0.24	0.33	0.19	1.39
Selangor	23.50	43.50	51.10	38.76	31.57	46.89	18.62
Trengganu	3.20	0.36	0.48	1.14	1.21	1.00	4.64
	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Totals	\$9,013	\$3,078,523,000	\$873,851,000	\$120,807	\$9,450	\$266,957,000	\$8,900,972

source: McTaggart, 1972; 43 (Table 7)

benefited from proximity to Singapore. Johore has an important agricultural and forestry base which supports several industries. Negeri Sembilan was not a major area of economic development until Port Dickson was developed as an oil port and the consequent development of the petroleum industry.

By mid-1975, more than fifty percent of all industrial estates developed were located in Penang, Selangor, and Johore. Only eleven percent were located in the less developed states of Kedah, Kelantan, and Trengganu (Malaysia, 1976;314).

The most phenomenal spatial concentration was in the rise of Kuala Lumpur's satellite town, Petaling Jaya, which experienced an average annual population growth rate of 13.3 percent (Narayanan, 1975:62). This population growth was as much due to industrialization as to increased level of services associated with the administrative capital of the country. In Butterworth, Penang, between 1969-70 alone, the proportion of workers in manufacturing increased by 48 percent against a 27 percent rise in Georgetown, the nearest city (Narayanan, 1975;61). Johore Bahru at the southern tip of the peninsula, across the causeway from Singapore, registered a 4.6 percent average annual population growth rate between 1957 and 1970. Some of this growth can be attributed to Singapore's own industrialization program, which depends on Malaysian labor.

In the post-1970 period, the rise of FTZs have similarly followed general urbanization patterns and located in areas where infrastructure and international trading networks already exist. (The first FTZ was established in Penang.)

In McTaggart's study on Malaysia's industrialization, he used the chi-squared statistic¹ to measure concentration of industry in eleven states. The results are summarized in Table 3.6, page 66. The highest index figure is for "petroleum products," which is concentrated in Negeri Sembilan. Other high figures are for "pineapple canning" (in Johore), "tobacco" (in Kuala Lumpur), and "vehicle assembly" (mainly in Selangor, but there are two firms in Johore), which show heavy concentration.

At the lower end of the scale are a collection of industries whose wide distribution is related to their essentially service functions and direct consumer orientations, for example, "biscuit factories," "tire treading" establishments, and "furniture shops."

There is a tendency for those industries falling in the "large scale" or "intensive" categories to have higher indices of

$$\frac{1}{E} \sum (O-E)^2,$$

where "O" is the observed percentage of value added occurring in a particular industry in a particular state, and "E" is the expected percentage, based on the 1970 population distribution.*

*It should be observed that the maximum magnitude attainable by the index will vary according to which is the state of total concentration of the industry. An industry concentrated 100 percent in Perlis, the smallest state, would have an index of 7094, whereas one concentrated entirely in Selangor would have an index of 437. No weighting has been used to avoid this, since it was felt that the index should properly reflect the different sizes of the state populations in this way.

(McTaggart, 1972;47)

Table 3.6: Measures of Dispersion and Concentration by Industries

Industry	Index		Comments*
Petroleum refining	1714	U(H)	Port Dickson district, Negri Sembilan
Pineapple canning	540	3	Chiefly Johore
Perfumes and cosmetics	464	2	Kuala Lumpur
Dairy products (not ice cream)	437	U(H)	A few large concerns in Kuala Lumpur
Breweries	437	U(H)	2 in Kuala Lumpur
Soaps and detergents	405	2	Dominated by one firm in Kuala Lumpur
Boilers, platework, stamped metal	373	3	Selangor, several establishments
Basic metals	357	U(H), 1, U(H)	Chiefly Penang, but small works elsewhere
Tobacco manufacturing	344		Dominated by two firms in Kuala Lumpur
Vehicle and m/cycle manufacture or assembly	332	3	Mainly Selangor, but two plants in Johore
Electrical appliances	325	3	Selangor
Animal feeding stuffs	310	3	Selangor and Malacca
Dry cells, lead batteries	300	5	Johore and Selangor
Wire and wire products	283	4	Selangor
Refrigerating and air conditioning equipment	262	3	Selangor
Rubber footwear, tires, tubes	253	3	Selangor
Cocoa and chocolate manufacture	247	4	Selangor
Printing and publishing	241	3	Selangor dominant; numerous establishments
Fabricated structural shapes	225	3	Selangor
Large rice mills	201	4	Kedah and Selangor
Textiles	197	4	Mainly Johore
Wooden boxes and crates	196	4	Selangor and Johore
Paper and paper products	194	3, 3, 4, 4	Selangor
Tin cans and metal boxes	189	3	Selangor and Johore
Clothing manufacture	183	4	Penang and Selangor
Candles and incense	181	4	Selangor chiefly
Leather and fur goods	180	4	Selangor
Brass, copper pewter, aluminum products	171	4	Selangor and Johore
Other grain milling	168	U(H)	Perak and Selangor
Crude coconut oil mills	149	3	Selangor
Ice cream factories	145	3	Biggest ones are in Selangor
Hydraulic cement	144	U(H)	Selangor and Perak
Motor vehicle body manufacture	131	4	Selangor and Penang--buses and trucks
Structural cement products	130	3	Selangor and Perak
Plastic products n.e.c.	124	4	Selangor
Small rice mills	118	4	Chiefly Kedah, but quite widespread
Blacksmithing and welding	118	4	Chiefly Selangor
Medicinal and pharmaceutical	116	3	Selangor, Perak, and Johore
Architectural metal products	113	4	Chiefly Selangor, but all developed states
Sago, Tapioca	111	4	Chiefly Perak
Soft drinks	109	3	Widespread, but biggest works in Selangor
Planing mills--joinery mills	107	4	Chiefly Selangor, but all developed states some
Footwear, other than rubber	107	L	Penang (George Town) main center
Rattan processing & manufacture	105	U(L)	Penang
Hats, caps, songkoks, etc.	100	4	Selangor and Penang
Industrial machinery & parts	97	4	Perak and Selangor
Biscuit factories	91	4	
Pickles and sauces	88	4	Widespread, Selangor the major area
Furniture and fittings	85	4	Widespread, Selangor the major area
Tire retreading and vulcanizing	74	4	Widespread
Sawmills	69	3	In all timber states; many in Kuala Lumpur also
Clogs and sandals, shoe heels	65	4	
Cut stone and stone products	61	3	Selangor, Perak and Penang
Spices and curry powders	60	4	
Coffin making	54	6	Selangor, Johore, Penang
Soyabean products	50	4	Widespread
Structural clay products	46	4	Selangor, Johore, Perak (bricks and tiles)
Coffee roasting factories	45	4	
Rubber remilling off estates	43	3	
Meehoon, noodles	36	4	
Bakeries	32	4	
Carpentry shops	32	4	
Tinsmithing	22	4	Household goods; utensils for rubber growers
Ice factories	21	1	
Hardware, tools, cutlery	12	6	

*Numbers refer to grouping from Table 5; "U" means unclassified, "H" means high, and "L" means low.

source: McTaggart, 1972; 48 (Table 8)

concentration while the smaller scale more "artisanal" industries are also those which are least concentrated spatially.

Some attempts have been made to bring about the dispersion of industry. Special "Development Area" incentives were added to the Pioneer Industries Ordinance, where they were probably swamped by the proliferating variety of incentives intended to promote various social purposes¹. Other government sanctions were also used to encourage location in the poorer regions. There appears to have been some actual dispersion outside the Kelang Valley area, but mainly into other west coast urban centers rather than to the northeast or east coast. The income distribution and employment benefits were probably minimal. As part of its regional strategy, efforts at dispersal of industries have speeded up. Of the total projects approved by the government during 1971-75, 1,234 were located outside industrially developed areas. The percentage of approved projects located in less developed areas increased from 43.1 percent in 1971 to 67.7 percent in 1975 (Snodgrass, draft).

less developed states of Perlis, Kedah, Kelantan, and Trengganu received an increasingly larger share of the approved projects from 20 or 12.3 percent of the total in 1970 to 92 or about 20 percent in 1975 (Malaysia, 1979;36).

¹A Locational Incentive Scheme was implemented in 1975 whereby tax relief was granted to projects established in Kedah excluding the Kuala Muda District, Pahang excluding the Kuantan District, Kelantan, Trengganu, Perlis, Sabah, Sarawak, and Johore Tenggara. The incentives are for varying periods from five to ten years depending on the amount of capital expenditure, size of employment, priority of products manufactured and local content.

In addition to industrial estates to encourage the dispersal of industries, work commenced on the establishment of several growth centers in regional development areas such as in Pahang Tenggara and Johor Tenggara (Malaysia, 1976;314). According to the Third Malaysia Plan (1976;315), based on the natural and agricultural resources in the regions, several potential industries have been identified including integrated timber complexes, oil palm processing, chipboard, and rubber products. These programs are being implemented under the present plan. According to the Mid-Term Review of the TMP, between 1976-78, Selangor including the Federal Territory, and Johore, continued to be the favored locations for investors, with their share of proposed new investment increasing from about 33.8 percent in 1973-75 period to 42.7 percent during the 1976-78 period. For Penang, the decline has been severe, from 16.3 percent to 5.2 percent. There has been a strong increase in Kedah's share of proposed new capital investment, rising from about 4.8 percent to 13 percent (see Table 3.7, p. 69). While some progress has been made for the poorer states of Kelantan and Trengganu, the share of proposed private manufacturing investment in these two states is still low.

3.7: Conclusions

In summary and conclusion, we can say that the process of economic development and industrialization has produced both economic and geographical polarization. These inequalities bear related social disparities such as in the provision of health, educational, and other social services. Public expenditure studies in Peninsular Malaysia show that despite relatively high expenditures

Table 3.7: Malaysia: New Approvals for Industrial Development by States, 1973-1978

State	Number of approvals				Proposed capital investment			
	1973-75		1976-78		1973-75		1976-78	
	Number	%	Number	%	(\$ million)	%	(\$ million)	%
High Income:								
Selangor*	476	32.6	394	31.4	786.6	18.5	862.6	26.7
Middle Income:								
Johore	202	13.9	190	15.2	648.8	15.3	515.6	16.0
Malacca	65	4.5	56	4.5	221.8	5.2	144.4	4.5
Negeri Sembilan	54	3.7	35	2.8	160.6	3.8	76.4	2.4
Pahang	47	3.2	70	5.6	610.8	14.4	396.0	12.3
Perak	167	11.5	104	8.3	542.4	12.8	252.5	7.8
Penang	198	13.6	135	10.8	690.2	16.3	168.4	5.2
Sabah	32	2.2	52	4.1	91.7	2.2	191.9	5.9
Sarawak	73	5.0	93	7.4	147.9	3.5	112.4	3.5
Low Income:								
Kedah/Perlis	82	5.6	70	5.6	204.0	4.8	418.3	13.0
Kelantan	17	1.2	27	2.2	24.5	0.6	29.4	0.9
Trengganu	18	1.2	22	1.8	35.5	0.8	37.7	1.2
Location Unspecified	28	1.9	5	0.3	77.5	1.8	20.1	0.6
Total	1,459	100.0	1,253	100.0	4,242.3	100.0	3,225.7	100.0

*includes Federal Territory

source: Malaysian Industrial Development Authority, cited in Malaysia, 1979:89 (Table 5-8)

by the government in rural areas, and especially in the less developed states of the north and northeast, the standards of living are still very low (Meerman; 1979). The causes have been identified as being rooted in the economic and social structure of rural society. The solution chosen by the government, as embodied in the NEP, depends on the abilities of planners to bring about industrialization and capital investment in the backward areas. This dispersal process is heavily dependent on foreign capital and technology, on export-based industrialization, and on the state corporations for planning and implementation.

In the following chapter, we shall investigate three of the strategies currently in use to reduce regional and economic inequalities in terms of their abilities to meet their formulated goals as well as an independent set of criteria which we shall apply to test for the existence of dependency in these cases.

CHAPTER 4 : ANALYSIS OF REGIONAL DEVELOPMENT STRATEGIES

4.1: Introduction: Review of Historical Approaches to Rural Development in Peninsular Malaysia

In the previous chapter, we saw how emphasis on industrial development in post-colonial Peninsular Malaysia led to uneven economic and spatial growth. In this chapter, we intend to examine three rural development strategies aimed at rectifying these structural inequalities. Before doing so, and in order to place these three rural strategies in the context of past rural development policies, we shall review the evolution of approaches to rural development used in Peninsular Malaysia. The history of rural development can be divided into three distinct phases: colonial, post-colonial (1957-70), and post-colonial (after 1970). Successive changes in the perceptions of problems in the rural sector during each phase influenced policy-making and program implementation.

It is pertinent to remind ourselves here that the rural sector in Malaysia is far from homogeneous and that there are important divisions, firstly, among the plantation, smallholder, and peasant sectors, and secondly, within these sectors. The plantation economy is basically subdivided into plantation-owners and managers on the one hand, and estate-workers on the other. Similarly, in the peasant sector, there are landlords and tenants. The smallholders are by and large self-employed, occasionally hiring outside labor. In the peasant sector, the capital-labor relation is less starkly manifested, for there are various other intermediate categories of self-employed

peasants utilizing household family labor. Landless peasants who are not tenured are hired to work as wage laborers either on a permanent basis or on a temporary basis depending on seasonal labor requirements. These various groups in the rural economy exist in a complex hierarchy of social and economic relationships that are differentiated by their relative ownership, control over, and use of economic and political resources within and without the rural context. For instance, the estate sector is closely tied not only to the urban sector, but to the international economy as well. In this center-periphery context, plantation-owners and workers are differentiated by the fact that the flow of economic surplus is unidirectional, stemming from the worker and flowing to the plantation-owners. Given the existence of these different rural groups, and given their interaction with external forces in a changing dynamic, the impacts of government policies and strategies for change have therefore to be seen in this context.

The colonial phase of rural development was essentially oriented towards the interests of plantation-owners. Land, labor, regional infrastructure, and all socio-economic policies led to this sector's development. The peasant sector was therefore neglected economically and socially. It was not neglected politically, however, because the Malay peasantry provided the basis for colonial legitimacy through Malay leaders whose positions depended on the stability of traditional social structures. The physical and economic neglect of the peasantry during the colonial period does not mean that it was isolated and completely separated from the developing sector in the

sense conveyed by theories of economic dualism. On the contrary, even though traditional methods of production were not transformed, the peasant sector served a dual purpose; the economic purpose was served in the provision of rice (the main subsistence) for wage earners employed in the rubber and tin sectors, while the social-political purpose was served in the provision of the social structural base of the traditional elites. The colonialist explanation of rural poverty among the peasantry as exemplified in the notes of resident British colonial administrators was not framed in terms of exploitative relationships between colonialism and peasantry, but in terms of "dysfunctional" values which prevented the peasants from becoming more actively involved in commercial enterprises. Colonial rural policies largely concurred with this theory, and consequently produced uneven development among estate, smallholders, and peasant sectors. The only instance when colonial policy was aimed at improving the peasant economy was when a shortage of imported rice threatened to disrupt rubber and tin production in the 1930s. The colonial administration then became aware of the need to become more self-sufficient in rice, since this staple affected subsistence wages in all sectors of the economy. This rice policy of self-sufficiency has continued into the present.

As Malaya moved towards independence, the explanation of rural (Malay) poverty shifted from a behavioral to a more structural approach. In promoting the Rural and Industrial Development Authority (RIDA), the first statutory body established in the country's history and representing the colonial government's first

(and, as it turned out, the only) step towards redress of its development bias, Dato Onn Bin Jaafar expressed a different view from that of the colonial government:

"The deficiencies in organization resulted essentially in the exploitation of the rural Malays by Chinese and Indian merchants and moneylenders. The dysfunctional value system was a reflection of the disintegration of village life, brought about largely by the paternalism of colonial rule. People had lost the old cooperative spirit and self-reliance of the traditional village and now looked to government to satisfy all their needs." (cited in Ness, 1967;126)

The post-colonial phase in the 1950s and early 1960s was characterized by the equalization of service rationale. Improvement of rural welfare through greater investment in physical and social infrastructure was the policy but little was being done to improve the economic base in the rural sector. By contrast, the urban sector was the focus of infrastructure construction and industrialization. The policies of this period can be viewed as the response to rectify colonial neglect to provide better physical infrastructure and social services, but not to the problems of low productivity and exploitation in the peasant economy. In 1964, Ungku Aziz elaborated on these economic themes and formulated for the first time the causes of rural (Malay) poverty. In this structural theory, the roots of Malay poverty lie in the three forces of neglect, low productivity, and exploitation of peasant production (in both export and subsistence activities) by monopolistic-monopsonistic middlemen. Their poverty then manifests itself in extreme rural indebtedness, land fragmentation, and chronic tenancy problems, which reinforce the low nutrition, low education, low productivity, and low incomes of

rural households in a vicious cycle of poverty. In a later article, Aziz was to point out that replacing non-Malay capitalists with Malay capitalists would not solve the economic problems of the Malays because the structures of exploitation and poverty would remain the same (Aziz, 1975). Aziz's influence on rural policy was not extensive, as evidenced in the rural development policies of the last decade.

The Federal Land Development Authority (FELDA) was created in 1956 to open up and settle abundant unused, but cultivable land. Several rural programs were launched during the late 1950s, many of them were failures, but FELDA, quickly transformed from a coordinating body into an instrument for direct federal implementation of local development projects. In 1959, RIDA, FELDA and other "rural development" activities were coordinated under a newly created Ministry of Rural Development. The persistence of ambiguities and unresolved power struggles is suggested by subsequent changes in the name of this ministry (first to National and Rural Development and later simply to National Development), even though overall development planning and many other development activities were never incorporated in the ministry, and by the fact that other important programs affecting the rural areas remained under the aegis of the Ministries of Agriculture, Land or even (in the case of rubber replanting) Commerce and Industry. The highly political nature of rural development programs made the distribution of functions among ministries a matter of great sensitivity. The Ministry of Rural Development was very much the creation of deputy Prime Minister

(later Prime Minister) Tun Abdul Razak. Successive Ministries of Agriculture have been rivals with their opposite numbers for Rural (or National) Development for support among the rural Malays, if not indeed for leadership of the United Malays National Organization (UMNO), the Malay wing of the ruling party, itself. These divisions of function and rivalries have unavoidably led to coordination problems in policies aimed at different rural sectors.

As time went by, the realization that rural advance was limited by the strength of the settler's economic base led to increased emphasis on productivity-raising projects. Beginning with the 1966-70 First Malaysia Plan (FMP), rural development began to be increasingly thought of in the context of national development goals such as production growth, diversification, and greater economic equality. For the FMP, emphasis was given to efforts to increase production along the intensive and extensive margins. The hope was to narrow the rural-urban income gap, if possible, thereby assuming some diffusion of the benefits of economic growth, and perhaps also retarding to some extent the rural-urban migratory shift.

With the events of 1969, the previously held assumption that Malays should remain identified with the rural sector, though a developing one, was discarded. Rural development, in the post-1970 period was marked by more active state intervention in rural markets for credit and produce. The planning of land development and other rural programs in close relationship to plans for urban and other non-agricultural activities gained momentum. These new

developments must be placed in the context of the rise of public enterprises, which are the organizational vehicles of the new development plans. Thus, the activities of the Federal Agricultural Marketing Authority (FAMA, founded in 1965), and the Agricultural Bank, Bank Pertanian (1969) were expanded and a National Padi and Rice Authority was created (1971). The content of rural programs remained approximately as it was. The main difference in this period was the organizational context in that political pressures have led to the entry of state enterprises into production, marketing, and investment activities. The effect of these large state corporations, as we shall see in the following analysis of three development schemes, is to infuse more capital and technology-intensive methods of production into, and hence to further integrate, the peasant economy into the market system.

4.2: IN SITU AGRICULTURAL DEVELOPMENT: THE MUDA IRRIGATION SCHEME

4.2.1: Prologue: "... Cracks in a Ricebowl ..."

On January 23, 1980, some 10,000 people, mostly farmers from among 60,000 families in the 234,000-acre MUDA area, voiced their discontent and rioted in front of the Kedah State Government office. The immediate cause of the riot was ostensibly the payment of the padi subsidies to farmers in the form of M\$2 coupons, instead of in cash, the previous form of payment. The coupons--one M\$2 coupon per picul of padi--were to be put in a savings institution and to be redeemed by their owners after a period of maturity. This scheme was devised to force farmers to save. However, to the many illiterate and unsophisticated farmers, it appeared more like a withdrawal of the subsidy or the imposition of a tax.

After the riots, the Government gave the farmers a choice of coupons or cash, reversing the mandatory M\$2 savings scheme¹. With real incomes eroded by inflation, most farmers are either in debt or prefer to consume the products of the better life they have come to expect.

Following the riots, the National and Padi Rice Board (LPN) had a second problem on their hands: surplus stocks of both rice and padi had built up in the LPN's Kedah mills. Unless milled and marketed quickly, deteriorations would cause loss of value as well as loss of grain.

¹Farmers said that the only people who choose the coupons are those who want to save for the pilgrimage to Mecca. For them it is more convenient to have the LPN deposit the savings in the pilgrims' funds rather than make cash deposits themselves.

This situation of apparent poverty in a ricebowl area raises questions about the "prosperity" of the area irrigated by the MUDA project.

4.2.2: The MUDA Scheme

The MUDA Irrigation Scheme constructed in the late 1960s and early 1970s, stretches across a plain in coastal Kedah and Perlis, the two northernmost states of Peninsular Malaysia. It supplies off-season water to 234,000 acres of padi land, approximately a third of Peninsular Malaysia's padi land¹.

The original purpose of the World Bank-financed MUDA Scheme was to attain rice self-sufficiency in the country. In this respect, this project was not a departure from traditional rice policy. It was only later, after the initial implementation of the project and following the NEP, that the project's goals shifted to include redistribution of socio-economic benefits. This perspective is important in evaluating the MUDA Scheme.

Most of the project area's 50,000 families switched from single-cropping to double-cropping between 1970, when water was first released, and 1975, when the full feasible command area was served. This resulted in a huge increase in padi production--from

¹The Project entailed the construction of two dams and storage reservoirs with connecting tunnel and 62 miles of new canals. In addition, a number of secondary and tertiary canals were improved and numerous access roads and a tidal barrage were constructed. The main season, of traditional crop, is canal irrigated from rainfed river flows. MUDA Project water is released only in the off-season (Goldman and Squire, 1978;64).

384,721 tons in 1969 to 795,830 tons in 1974, about fifty percent of Malaysia's production (Goldman and Squire, 1978;2). This, together with subsequent production, have brought Malaysia close to rice self-sufficiency.

This rapid increase in padi production is not attributable to the irrigation project alone. Several technical changes occurred in conjunction with the widespread use of off-season irrigation water from the newly constructed canals. They resulted not only in physical increases in padi yields, but also in substantial changes in socio-economic patterns in the MUDA area.

This study is limited in scope and data, and hence will not be a comprehensive study of the effects of the MUDA Irrigation Scheme. Our aim here is to draw on information presented in several studies on MUDA in order to arrive at an understanding of why the optimistic picture of the rice economy just painted above contradicts that presented in the opening paragraphs of this chapter. To do this, we shall examine the introduction of new technology employed in MUDA and how it affected an existing traditional rice economy and society.

4.2.3: Analysis of the MUDA Scheme and its Economic Effects

We begin with a description of the types of "Green Revolution" (GR) technologies and institutional changes which were introduced together with the irrigation system; then go on to evaluate their combined impact on the structure of production, the labor market, the mode of labor utilization, and land rents.

(a) The Green Revolution Technology Package

(i) The Technological Transformation

The components of the technological transformation are irrigation networks, high yielding varieties (HYVs), agri-chemical inputs (fertilizers, pesticides, weed-killers), and mechanization techniques (tractors and combine harvestors).

Irrigation facilities are essential for the introduction of double-cropping because of the need to ensure the availability of water supply during the dry season. The MUDA Scheme is now fed by two dams in the thickly forested mountains 30 miles to the east; 800 miles of canals, 500 miles of drains, and 1,500 miles of roads have been constructed (FEER¹; February 22, 1980; 30). The use of HYVs which have a shorter maturity period is another important component of the double-cropping program. In the MUDA area, the proportion of farmers growing HYVs rose from less than two percent in 1966 to forty-three percent in 1969, and by 1973, eighty-five percent of main-season planters, and ninety-two percent of off-season planters had adopted HYVs (Wong, 1979; 77). Chemical applications, fertilizers, and fungicides, are often used together with HYVs to maximize the yield and to minimize the chances of crop reductions caused by uncontrolled natural elements. In MUDA, estimated use of nitrogen has risen from 8.8 kilogram per hectare (kg/ha) to 45.6 kg/ha between 1965 and 1973 (FAO/World Bank, 1972). Mechanization was introduced as a labor-saving device and is now widespread in the MUDA area, especially on the larger farms. For example, almost all MUDA farms now use combine harvesters.

¹Far Eastern Economic Review

(ii) Institutional Changes in the MUDA Area

The project area has experienced strong Government intervention in the forms of extension services, marketing, credit, education, and farm mechanization training. Prior to the MUDA Scheme, middlemen roles were played by non-Malays (mainly Chinese), who traditionally filled the need for the buying of padi from rural farmers and then selling it to millers and wholesalers¹. One rationale for Government intervention in marketing is to provide a "Malay" alternative to those farmers who prefer not to deal with their traditional Chinese buyers. The relationship between seller and buyer has not been transformed, merely transferred from the individual to the state as buyer, in the form of the LPN.

There have been reports of conflicts between extension services workers and the farmers due to the former's bureaucratic attitude towards the latter's slow adoption of the latest techniques.

The MUDA Agricultural Development Authority (MADA), a federal agency that administers the scheme, has established 27 Farmers' Associations (FAs), that are designed to combine the "democracy of a cooperative with the active business administration of the firm to lift the peasantry out of its plight." At first nearly 80 percent of members came from the poorest group of farmers who worked less than

¹This marketing chain which was initially dominated by colonial interests, resulted in the Chinese middleman (who were at the lower ranks and in contact with the Malay farmers) being viewed by the farmers as their immediate oppressors. Such a situation has contributed greatly to the racial conflict between Chinese and Malays.

the average 4.1-acre holding. When the organizations proved themselves and were entrusted to disburse government-issued urea and other fertilizers, richer farmers soon saw their value and joined (FEER, February 20, 1980;30).

(b) The Impact of Green Revolution Technology on Production

The farmers of the MUDA area and the northwest of Peninsular Malaysia in general, were already producing on a commercial scale prior to the MUDA Scheme. However, production of padi for the market did not exclude a variety of off-farm occupations, and non-padi agriculture in those areas. Padi growing was relatively more profitable in the northwest than in most other padi areas (e.g., Kelantan and Malacca). This was reflected in the higher productivities, and higher incomes of northwestern farmers. Since padi-growing was already relatively profitable in the MUDA area, when double-cropping was introduced and successfully increased yields in both main and off-season crops, the farmers became more specialized in padi production¹. This meant that other non-padi production and the MUDA economy became more integrated into the market for one crop.

As a result, production rose to the point where self-sufficiency was basically achieved. This accomplished the original goal of the MUDA policy.

A number of factors have altered the production process. It has become more capital intensive owing to changes made by GR

¹A study by Yukon Huang (1972) on double-cropping concludes that areas which are most likely to adopt double-cropping successfully are those in which farmers are already producing substantially for the market, and whose incomes are dependent on padi production.

technology, namely the use of machines. High capitalization means that access to capital becomes an important determinant of yields and of incomes. Labor has become more specialized as result of the use of machines. For example, the development of mechanized transplanters and combine harvesters means that the labor displaced from these tasks will be channeled into those areas where labor demand is high, or into other occupations, such as the urban sector. In MUDA, double-cropping has increased agricultural surplus which has in turn increased the demand for labor. As a result, wage rates have increased. The weighted averages of planting and harvested wage rates increased from 100 in the base year, 1970, to 178 in 1973 (Goldman and Squire, 1978;15).

Access to labor during the needed times is important. Because water during the dry season is released on a fixed schedule, there is a sudden leap in labor demand in order to perform those labor-intensive tasks before the water diminishes. The regulation of the padi cycle by water irrigation schedules has helped to create artificially high labor demand in the peak demand periods and labor shortages during the off-peak periods. With the reliance on faster growing varieties, more industrial inputs and double-cropping, the time factor becomes even more crucial. Thus even small farmers will hire non-family labor to complete their replanting while the water is available, or to help them carry out harvesting quickly enough to enable them to go and work on other, larger farms where their labor will be more productive. Thus the small farmers are adversely affected by this situation.

Labor supplies come from several sources, with the labor market extending outside of the MUDA area. Forty-seven percent of the total labor input into padi represents hired labor. Double-cropping households supply fourteen percent of total labor demanded, while thirty-three come from non-double-cropping households--single-cropping households, rural landless households, and households supplying migrant labor (Goldman and Squire, 1978;44). A large number of workers reportedly came from Kelantan and South Thailand for harvest, although the number from Thailand has been reduced drastically by a recent Malaysian law prohibiting the entry of Thai workers into the MUDA area.

What is the extent of proletarianization in the MUDA area? De Koninck's study reports that there is not yet an important category of fully dispossessed farm workers (1979;387).

Land has become more valuable as a result of the MUDA Scheme. However, land prices do not operate fully in response to the dictates of the market. The rising productivity of land has not been fully capitalized in land values. According to Goldman and Squire's report of 1978, rents have not altered much during their period of study, and hence, tenants have been able to benefit more than the market would normally allow. Traditional institutions which have not been completely eroded by the market system appear to play a strong role in this case. Firstly, tenancy among kin is very high in the MUDA area, and this mainly explains why land rents have remained low. A second reason, which is also institutional, has to do with the nature of the tenure system. The system that prevails in MUDA is fixed rent in cash. This system is predominant in principal padi producing areas,

where yields are high and relatively predictable and where most cultivators depend on commercial padi sales as their principle source of income. The result is that tenants in more productive areas receive the incentive that increments in production will accrue entirely to them (Huang,1972).

These two institutional factors, in combination, provide a powerful reason for why land rents have withstood the incursions of the market system. A more detailed analysis of changing tenurial relationships in the MUDA area is needed to offer better insights into the process of rent determination. However, it is likely that as padi-farming becomes more market-oriented, as land dispossession becomes more developed, as more impersonal and contractual relationships are made, and as the demographic pressure builds up without the opening of more land, the degree of traditional kinship tenancy arrangements will probably be eroded.

4.2.4: Uneven Socio-Economic Impacts

It has been claimed that the introduction of GR technology in developing countries has pauperized, rather than enriched, the areas affected by it (Griffin,1976). In this section, we shall examine the distribution of benefits from the MUDA Scheme in order to verify this claim. We shall pay particular attention to the creation of new forms of differentiation and the various forms of dependency, and its concepts of "development of underdevelopment" in the context of center-periphery relationships.

(a) Inter and Intra-Village Differentiation

Studies of the impact of GR technology in the MUDA area by

De Koninck and Gibbons (1979) have found strong differentiation at both inter- and intra-village levels. They found in a comparison of MUDA in Malaysia and Aceh in Indonesia, that in both regions differences among padi producers with each village are equally strong, and that intra-village differences are of greater significance than inter-village differences. In short, the diffusion of the innovations not only accentuates disparities in technological achievements between two given villages, but it also accentuates them even more within each of these villages.

In the MUDA Scheme, the spatial patterns of the technological diffusion process have been strongly influenced by the pre-existing road network and settlement patterns. Lowland areas which are more heavily populated and traversed by trunk roads, have been the first ones to acquire the new technology.

(b) Factors Influencing Farm Benefits

Farm income has been the chief measure of farm benefits accruing in the MUDA area. The distribution of benefits brought about by the new innovations is extremely important because it indicates the potential of similar projects in dealing with distributional issues. The MUDA case is a good example to use for examining this question because the irrigation water in given areas affected both large and small farmers equally, although it is recognized that inter-village differences in receiving innovations exist. We assume here that governmental bodies play an efficient role in diffusing new technologies. Under these conditions of equal access to technical innovations, differences in farm incomes will occur. The main

variable was found to be farm size. In a multiple regression analysis conducted by De Koninck, farm size provided 96% of the high correlation between farm size and income achieved in Malaysia ($r^2 = .80$). The larger the farm size category examined, the higher the level of explanation of income achieved. (De Koninck, 1979;281)

Tenancy itself, was not a significant factor in explaining incomes, because, as explained earlier, tenancy and rental conditions do not reflect market conditions. Owner-operators do not necessarily earn more than tenant-operators if their farm sizes are different or the same. (Wong, 1979;89)

In section 4.2.3, we saw that access to capital, labor, and land are important production factors. These three production inputs are correlated with farm size in the following manner. Large farmers have better access to capital. They can offer better collateral for credit than small farmers. Institutional access to credit is as important, if not more, than economic access. Large farmers often also hold positions of responsibility (in village communities, Farmers' Associations, and political parties) and this enables them to obtain certain privileges. With the greater amounts of finances at their disposal, larger farmers can better afford more expensive capital equipment, managerial training, and other inputs of production. They can also more effectively compete for labor which is a necessary component of the production process because it has the capacity to generate surplus. (De Koninck, 1979;282)

Thus, large farms, which have more access to finance capital, and better capacities to absorb labor, are in a position to generate

more surplus or benefits. Over time, this accumulation process would tend to lead towards greater farm size concentrations. Lastly, access to land is definitionally correlated to farm size.

The importance of farm size categories in relation to production factors and surplus generated is borne out by evidence presented in Tables 4.1 and 4.2, page 90.

(c) Polarization Trends in the MUDA area

The analysis of farm size and farm incomes in the previous section leads us to expect several trends in the MUDA economy: increasing farm size concentration, increase in large commercial farms, eventual displacement of tenants, increasing income distribution disparities. The primary source of data here is Wong Poh Kam's study of the MUDA area (1979).

(i) Increasing Farm Size

Our analysis up to this point leads us to expect that smaller and inefficient farms, that is farms that are less able to compete in the market, or to withstand low padi prices will be increasingly marginalized. With the current saturation of the internal market, this is a probable event unless they are institutionally subsidized by below-market rents, or by government intervention, which we see to be the case (see Chapter 4.1).

There is evidence pointing to the increasing farm size concentration in MUDA. Jegatheson (1977) found that the Gini Coefficient (G.C.), which measures the extent of income inequality, has increased: in 1966, G.C.=0.354; in 1972/3, G.C.=0.360; and in 1975, G.C.=0.383. Wong (1979) also found evidence to support this. A

Table 4.1: Farm Size Categories, Factors of Production, and Surplus Padi Commercialized

Total size of Padi Land Operated in a Year (2 Seasons) in Hectares	(1) Number of Cases	(2) % Share of Number of Cases	(3) % Share of Total Land Operated	(4) % Share of Total Expenditure on Industrial Fertilizers	(5) % Share of Total Expenditure on Hired Labor	(6) % Share of Total Padi Production	(7) % Share of Total Commercialized Surplus
Size Categories							
Small ≤ 2.00	126	37.9	15.1	18.0	12.4	15.1	9.2
Medium 2.01-3.00	83	24.7	19.5	21.7	18.7	20.8	18.2
Large > 3.00	127	37.4	65.4	60.3	68.9	64.1	72.6
Total	336	100.0	100.0	100.0	100.0	100.0	100.0

source: De Koninck, 1979;284 (Table 6)

Table 4.2: Farm Size Categories and Relative and Absolute Quantities of Wage Labor in Harvesting

Total Size of Padi Land Operated in a Year (2 Seasons) in Hectares	(1) Number of Cases	(2) Average Size of Total Land Operated in Hectares	Work Accomplished by Non-Household Hired Labor			
			Relative Quantity		Absolute Quantity	
			(3) As % of Total Harvesting Work Accomplished	(4) Index	(5) Theoretical Values*	(6) Index
Size Categories			Average	Index	Average	Index
Small	126	1.26	41.4	100	52.2	100
Medium	83	2.48	57.1	138	141.6	271
Large	127	5.49	52.0	126	285.5	547
Total	336	3.15	49.3	119	155.3	298

*These provide a crude measure of the total quantity of work accomplished by non-household hired labor. To obtain this abstract and comparative value, it is necessary to multiply the amount of work accomplished by hired laborers by the amount of land on which it is accomplished (Column 3 x column 2).
source: De Koninck, 1979;285 (Table 7)

definite decline in the share of "medium-sized farms (5-10 acres)" and a definite increase in the proportion of "small" farms (less than 5 acres, with those less than 3 acres increasing more). The share of large farms over 10 acres seems to have increased slightly between 1966 and 1975, both in number and area. It has been noted before that land dispossession has not yet occurred to a large extent. The fragmentation of medium-sized farms into smaller farms indicates a step in this direction.

(ii) Increase in Large Commercial Farms

We would expect that as larger farms accumulate more surplus that they would increase their utilization of production factors (capital, labor, land) and that their use of foreign management techniques would lead to an increase of large commercial farms. Wong (1979; 105-107) has documented the ownership of tractors and utilization of hired labor by large farms. He found that in 1973, 3.6 percent of all farmers, 2,000 out of about 52,000 farms in the MUDA area, "...owned 1.3 tractors per farm and three times as much land as the average small farm, operated more than twice the average farm size of the MUDA area as a whole, utilized more hired labor (65 percent) than family labor, and earned more than twice the net income of other farms." (Wong, 1979;106-107)

(iii) Eventual Displacement of Tenant-Operators

Data from Table 4.4 on the tenurial structure of padi farmers in Kedah and MUDA (1955-1974) indicates that "owner-operator" has declined. The eventual displacement of tenant-operators is a phenomenon that is consistent with the two conclusions arrived at above.

(iv) Increasing Income Distribution Disparities

This trend is expected to occur as a result of the following conditions: increasing farm size concentration, since farm size has been shown to correlate with farm incomes, as the Gini coefficient for farm size distribution increases, the same will be true for income distribution; changes in tenurial conditions, the old land rent system which has sheltered small tenant producers will erode and higher land rents will lower incomes of all tenants, but will have greater impact on small producers.

4.2.5: Setting the MUDA Case in Frank's Dependency Framework

The MUDA case is a very good illustration of Frank's dependency model, incorporating the basic elements of integration of a pre-capitalist economy into the market system, underdevelopment in the wake of technological infusion, and dependence within a hierarchy of center-periphery relations extending from the world industrial "core" to the grassroots level of the periphery.

We shall begin this analysis with the Green Revolution technology, as we did before in analyzing changes in the MUDA region. External dependency between Malaysia and the advanced core countries exists in the relationship between the suppliers of Green Revolution technology (technological dependence), and the recipients who range from large to small farmers. As the range of innovations increases, and as long as this technological innovative power is controlled from outside the country, the MUDA economy and consequently Malaysia's rice production will remain dependent even though it has attained

import substitution in rice. This technological dependence is multiplied at the local level through the various mechanisms we have described and serves to support the polarization trends described earlier. Since Green Revolution technology has been shown to have differential impacts on different groups in the socio-economic hierarchy, there is a link then between seemingly local structures of unequal relationships and the "core" countries.

Another aspect of external dependence, for which we have no data at present, is the export of surplus value from periphery to core through transfer pricing¹. It is easy to conceptualize this occurring in the MUJA economy through the marketing of technological products (fertilizers, agro-chemicals, and harvesters) over which the seller has a monopoly.

There are various levels of internal dependency created by the integration of the peasantry into the domestic and international market system. We have noted increasing structural inequalities pertaining to farm size distributions and farm incomes. As more farmers produce entirely for the market, they will be dependent on market conditions. On the other hand, those marginalized in the process become dependent on the wage labor market. Increasing specialization in rice production also obliges the rural sector to be dependent on the urban sector for many consumption items which they produced before.

¹Transfer pricing occurs when goods traded (usually between a LDC and a multinational corporation, or MNC) are priced such that greater value accrues to the MNC. This is because there is a monopolistic or monopsonistic situation in favor of the MNC.

4.2.6: Conclusion

From the above analysis of the MUDA Scheme, we can conclude that it succeeded in removing regional disparities to the extent that Green Revolution technology has increased regional incomes and productivity on the whole. While the MUDA region has experienced 'development' in this sense, as well as managing to aid Malaysia's goal in rice self-sufficiency, it has also become a victim of 'underdevelopment' to the extent that the benefits of the development have accrued unevenly to different social groups. This process has generated a hierarchy of unequal and dependent relationships. The average per capita income in MUDA is officially very high, but if this is in fact the case, then the picture would be less pessimistic than the one portrayed by the recent demonstrators in Kedah. These new inequalities do not mean that the old political-economic structures have been entirely transformed. Rather, they are integrated and built on each other.

This analysis and conclusion is not new. In his 1978 doctoral thesis on this subject, a senior agricultural officer in MADA wrote:

"Throughout history the MUDA peasantry generally had not been pushed sufficiently hard to respond with open rebellion. What did occur were local uprisings and withdrawal, easily contained and diffused by the state's bureaucratic mechanisms... (but) the infusion of foreign capital into the region alienated the already marginalized peasantry from the political system it supported."

(Afifuddin Omar, 1978; quoted in FEER, Feb. 22, 1980; 280)

4.3: LAND SETTLEMENT AND DEVELOPMENT: FELDA SCHEMES

4.3.1: Introduction

In the previous chapter, we examined the consequences of planned in situ agricultural development. This chapter focuses on settlement and development as a tool of regional policy. The FELDA type of land settlement scheme is chosen for this study because it is the foremost and most impressive land development strategy in Malaysia. It has produced a significant record of raising rural incomes and of providing land for the landless. FELDA's success has been reflected in a consistent waiting list of settlers¹ and by the fact that FELDA has found it possible to develop schemes in relatively remote and isolated areas of the peninsula. It is, however, one of the most expensive land development strategies in the developing world.

Our purpose in analyzing FELDA's role in regional development is to understand its general usefulness and effectiveness as a strategy to overcome social, economic, and regional inequalities. Both short and long-run perspectives will be considered. While its record in raising rural incomes, providing land to the landless and employment to the unemployed is impressive, we believe that this success hinges upon few critical factors and render the settlers completely dependent upon the world market situation for their livelihoods. The FELDA settlers are considered part of a "new breed"

¹During 1971-75 alone, about 53,000 applications were received by FELDA out of which 34,750 were found suitable and put on the waiting list. At the end of 1975, the number of suitable applicants still waiting for places was over 18,700 (Jamaluddin Lamin, 1976, cited in Wong, 1979;204).

of farmers, being socialized by their participation in FELDA schemes into modern business-minded farmers. This is consistent with the NEP goal of creating more entrepreneurial talent in the Malay sector. Finally, we would like to pin-point some major trends in land development in order to locate the future of the FELDA settler.

This chapter is organized in the following manner. In 4.3.2, a description of FELDA's objectives and policies, the nature of FELDA schemes, and the implementation process is given. We shall be focusing on rubber and oil palm schemes since most FELDA schemes are based on either of these two crops. 4.3.3 evaluates FELDA's performance in terms of its own goals, while 4.3.4 discusses the major criticisms of FELDA - high cost and low settlement rates, FELDA's "paternalistic" role towards settlers, dependency and future trends.

4.3.2: FELDA Schemes

(a) Goals and Objectives

FELDA was formed in 1956 under the Land Development Ordinance, but did not become a significant instrument of rural development until the 1960s and 1970s. Its initial duty was to "promote and assist the investigation, formulation and carrying out of projects for the development and settlement of land within the Federation". From 1957 to 1960 FELDA's functions were two fold: firstly, to make available Federal resources, principally financial, to State Governments for approved land development schemes, of which fourteen were financed by FELDA in this period; secondly, to undertake the

development of schemes itself - by the end of 1960 it had cleared and planted about 15,000 acres. In 1961, because of difficulties of coordination between FELDA, the State Governments and other agencies, its function as a "loans board" was abandoned, its organization was strengthened by the addition of technical and administrative staff, and a number of regional offices were established in the states of the Peninsula.

(b) Land Assignment

FELDA schemes generally consist of four to five thousand acres of newly opened land, planted with commercial crops such as rubber and oil palm; nearby are village settlements for housing settlers and their families. Settlements are provided with roads, water supply, houses, schools, health centers, shops and processing plants. Each settler family has a half acre home plot, an area large enough to plant fruit trees and vegetables. The schemes are comprehensive, removing families intact from their original areas and providing them with employment on an estate or with the "ownership" of 10 to 12 acres. Whether settlers are laborers or smallholders is a point of confusion (this point will be discussed in greater depth in 4.3.3). On rubber schemes, settlers are given individual plots to work on and they become owners of the plots when all their debts to FELDA are cleared (certain infrastructural facilities may be shared, but basically individual ownership and working of plots is the objective). Oil palm is uneconomical to farm as a smallholder crop because of its high bulk-value ratio, the high capital investment required for processing and for fertilizers in the

immature period, and the nature of harvesting and processing¹.

(c) The Process of Implementation

The implementation of a FELDA project usually begins with forest-clearing which takes about one to one and a half years to complete. Most of this work is done by Indonesian contract labor which is cheaper than local labor. Planting is the next step and this takes about one and a half years to prepare. Meanwhile the physical infrastructure of the settlements is constructed and most of the work is done by the government Public Works department (Jabatan Kerja Raya) or by (mainly Chinese) contractors.

At this juncture, it is important to note that a chain of new economic activities has been set into motion just by the clearing and preparation process itself. Part of the logging industry and the export of sawn logs is a "lucrative" outgrowth of forest-clearing. The need for infrastructure has created backward linkages and stimulated activities that produce goods and services for this purpose.

The settlers do not enter the scheme until the second phase which is approximately two years after land clearing begins and about one year after the planting of the main crops. Selection of settlers is by interview on a points system which gives priority to landless young married Malays who have agricultural experience.

¹The fruit must be harvested when fully ripe, and must be processed as quickly as possible after being cut down from the palm, since delay causes deterioration in oil quality. If the oil from several producers is bulked, the effect of a small portion of low-grade oil is to downgrade the whole batch of the product.

(Since the schemes began, the overwhelming majority of settlers have been Malays.) Application is open only to Malaysian citizens who are married, 18 to 35 years old (up to 40 for ex-servicemen), have no criminal record, and own not more than 2 acres of rural land or one lot of urban land. Two conditions modify this selection system. The first is that 50 percent of the places for settlers should be reserved for applicants from the same state in which the scheme is to be located; this is in recognition of the fact that it is the individual states rather than the Federal Government which has legal control over land. The second condition is that 20 percent of places in FELDA schemes must be made available to ex-servicemen (police and security force personnel) possessing the minimum qualifications.

(d) How the settler acquires ownership of the land

Once the settler-family is chosen, it enters into two agreements with FELDA. Upon entry to the scheme the settler signs the first part of the agreement with the Authority. This binds him to abide by the rules laid down by FELDA and carry out work on the scheme as instructed by a FELDA representative, normally the scheme manager. During this "development" period before the crops mature, the settler is expected to maintain the planting process by performing various tasks allotted to him. For his work he is paid a wage. In any case he receives a minimum subsistence income, and any loans are charged to his account.

At the end of the fifth year after oil palm planting or at the end of the seventh year after rubber planting, the settler

signs the second part of his agreement. This is the "supplemental" agreement. Under this, the settler is registered as an "occupier in expectation of title" in respect of the ten acres of the crop and a house and a quarter-acre lot. On rubber schemes the present practice is to allocate a specific plot of land to the settler whereas on oil palm land the settler receives the right to a share of the proceeds from the scheme as if he were the sole owner of ten acres of the crop. This represents a move away from individual peasant household production. When the settler has paid off his loan to FELDA, the Authority will "revert" to the State Government the planted area with the recommendation that it should be alienated either to a cooperative or to the individual settler for a period of not less than ninety-nine years. (Edwards, 1975;257) There is one important condition attached to ownership of FELDA land, which distinguishes it from ordinary land ownership, and that is that the lot cannot be subdivided.

(e) FELDA Management

Owing to the late entry of settlers in FELDA schemes, the implementation process has to be run by managerial and administrative FELDA officials. They are hired by and are responsible to their superiors in FELDA, and not to the settlers. Their task is to ensure that production schedules are met and basically that FELDA rules are followed. The term "politico-administrative brokers" has been used to describe their role in FELDA. (Syed Husin Ali, 1974;54) The unpopular tasks carried out by these "brokers" include the expulsion of settlers who violate some rule, preventing

smallholders from selling their rubber to non-FELDA interests, and forcing them to repay their debts before time by withholding part of their incomes. We shall return to the subject of FELDA-settler relations in 4.3.4.

4.3.3: The Achievements of FELDA

In this section of the evaluation we shall measure the extent to which FELDA has achieved the goals and tasks it has set itself. The main criteria of this evaluation will be settlement of the landless, provision of economic holdings, increases in incomes and reduction of poverty and reduction of unemployment, and improvement of the economic position of Malays.

(a) Settling the landless and reducing unemployment

The dimensions of land hunger in Peninsular Malaysia are very great. Land hunger is the consequence of changing relations in the political economy of land use and distribution in the country. The roots of land hunger can be traced back to the colonial period when land was first made into a tradeable commodity. Since that time, the major factors leading to landlessness are increasing concentration of land holdings and production, the development of a credit system which benefits the haves and discriminates against the have-nots, land subdivision and fragmentation, low padi prices, and the Green Revolution technology.

We shall now estimate the extent of landlessness in Peninsular Malaysia. According to the 1970 Census, Peninsular Malaysia's population is approximately 8.8 million, comprising 4.7 million

Malays, 3.2 million Chinese, and 0.9 million Indians. 85 percent of the Malay population, or 670,000 families live in rural areas, out of which 60 percent of farmers or 402,000 families need land. Included among the landless are agricultural wage laborers and tenants. The annual rate of increase of rural landlessness is estimated to be 2.6 percent; this means an increase of 10,452 landless families per year.

The rate of FELDA settlement according to the Second Malaysia Plan, is 4,000 families per year. Thus only 40 percent of the increase is being absorbed by FELDA's settlement program. This figure would be lower if the non-Malay landless were taken into account. On the other hand, FELDA's record of settlement has been improving. During the Second Five-Year Plan (1961-65), of the planned 250,000 acres to be developed, FELDA managed to develop only 133,285 acres of 53 percent of the target. Similarly, only 6,200 families were settled on the schemes as against the target of 24,000. However, FELDA was able to learn from past experience, improve its organizational skills, and as a result was able to exceed the acreage target under the First Malaysia Plan (1966-70) by 27 percent (see Table 4.3, page-103). Its achievement in settler intake, however, fell short by 6 percent; this was attributed to the slow pace of infrastructure development for which other government agencies were responsible.

In terms of its contribution to the problem of unemployment in Peninsular Malaysia, we can only provide rough estimates as actual figures for all the jobs created resulting from FELDA's operations

Table 4.3: Targets and Achievements of the Federal Land Development Authority

	Federation of Malaya				First Malaysia Plan	Second Malaysia Plan		
	First Five-Year		Second Five-Year		1966-70	1971-5		
	Plan 1956-60	Plan 1961-5	Plan 1961-5	% Achiev-	Target	Achieve-	% Achiev-	Target
	Achieve-	Target	Achieve-	ed	Target	ment	ed	Target
	ment		ment					
Acres of new land developed for rubber and oil palm	17,002	250,000	133,285	53	141,000	179,000	127	275,000
Number of families settled	3,300	24,000	6,200	26	12,673	11,900	94	23,700
Total expenditure (M\$'000)	7,175	175,000	99,272	57	305,000	261,782	86	582,420

source: Wafa, 1973;20 (Table 9)

are not available. Besides providing employment to settlers and members of their families, FELDA's operations also involved the employment of wage labor for FELDA estates, contract labor for jungle clearing, land preparation and planting and maintenance of the area during the early phase of development -- estimated on an annual basis at 0.15 person per acre of land developed. (Wafa, 1973;21) Thus FELDA's program during the First Malaysia Plan period led to the employment of approximately 29,000 clearing laborers, 11,900 settlers and their families, and 1,466 field and office personnel. If we assume that both the settler and his wife were fully employed on their rubber or oil palm holding, then the total new jobs created by FELDA during this period were 54,266 or approximately 13 percent of the total increase in the labor force or a net contribution of 16 percent to employment (Wafa, 1973). In recent years, these numbers have been eroded by the import of cheap Indonesian labor for jungle clearing. There is no data on the extent to which this affects FELDA's performance in reducing Malaysian unemployment.

(b) Increase in incomes and reduction of poverty

The FELDA program has in general succeeded in raising incomes on rubber and oil palm holdings. FELDA's net income target for settler households in M\$300 per month from the main crop during the mature period. This represents a three to four-fold increase over the average rural household per capita income, which was M\$64 in 1974 (Meerman, 1979;86). The figure for Pahang for the same year

was M\$92. Incomes have increased faster in the oil palm than in the rubber sector (see Table 4.4, page 106). According to the nation-wide survey, in 1976, net average monthly incomes in both sectors were above M\$300. While FELDA has achieved its income targets on the average, it has not done so for some sectors of the settlers. The average household monthly income for settlers during the pre-mature period is reportedly M\$100. In the case of rubber, fluctuating prices have driven down settler income to the extent that settlers illegally sell their products to non-FELDA buyers in order to be able to under-report their yields. This would result in a lower loan repayment deduction from their incomes which is automatically withheld on a monthly basis.

To what extent has FELDA reduced poverty in Peninsular Malaysia? The selection process concentrates on selecting landless settler applicants with a predominantly unskilled or semiskilled background. In the case of landownership, the selection procedure filters out at the first stage of the application process anyone owning more than two acres of more of land. The selection process is also designed to take in the primarily rural poor smallholder. Consequently, the majority of those who become FELDA settlers come from the poorer rural sections of the society with around 60 percent having an agricultural background. A recent World Bank report estimated that 60 percent of FELDA settlers were landless peasants, poor smallholders, and ex-servicemen. (IDRC, Appraisal of the Johore Land Settlement Project, Jan. 11, 1974;5, cited in MacAndrews, 1976;346)

Table 4.4: Net Average Monthly Income¹ of FELDA Settlers (M\$)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976³</u>
a) <u>Nation-side survey</u>						
rubber schemes (all) ²	144	115	246	256	n.a.	331
oil palm schemes (9 acre holdings only)	382	273	336	802	n.a.	361
b) <u>Johore survey</u>						
rubber schemes	n.a.	150	283	300	293	n.a.
oil palm schemes	n.a.	320	390	854	469	n.a.

¹ after deduction of loan repayment, operating costs, and other charges

² unweighted average of holdings of 6,7, and 8 acres

³ refer to average over holding sizes; figures are given in Malaysian Business (July,1977)

source: Wong,1979;202 (Table 3.25)

However if FELDA has clearly taken its settlers from the poor and landless in Malaysia, it has been because of the historic nature of its development, catered mainly to the poor in only nine out of Malaysia's eleven states.

This has been brought into focus recently (1975) with the analysis of poverty groups in Malaysia and the emphasis in the formulation of the Third Five Year Plan (1976-80) towards developing the "poorer" and more backward states in Malaysia. This analysis has made it possible to compare the location of FELDA settlers and probable makeup of the settlers with low income groups. As can be seen from Table 4.5, page 108, which ranks Peninsular Malaysia's eleven states by their incidence of poverty and compares this to the level of FELDA's operation in various states, FELDA's efforts to date have been directed towards the more developed states. As Table 4.5 shows, FELDA has no scheme in two of the poorest states in Peninsular Malaysia (Kelantan and Perlis) and only 22.3 percent of all its schemes in the five poorer states (Kelantan, Perlis, Kedah, Trengganu, and Perak). However, 4.6 percent of all FELDA settlers come from Kelantan, 1.0 percent from Perlis and 25 percent from the five poorer states. Thus there is a marked bias in FELDA development to date towards the more developed states of the country (Johore, Malacca, Selangor, Negri Sembilan and Perak) and to Pahang in whose case the Government development policy and the availability of land has given it first priority on the East Coast. It is clear that FELDA has so far only catered to the "poor" in Peninsular Malaysia.

Table 4.5: Peninsular Malaysia: Geographic Distribution of Poverty, 1970

State	Number of Households ('000)	Number of Poor Households ('000)	% of Households in Poverty	Number and % of FELDA Schemes	Number of Settlers	Settled by State under FELDA Scheme
Kelantan	145	94	64.8	--	--	1297 (4.6)
Perlis	25	15	60.0	--	--	277 (1.0)
Trengganu	86	47	54.7	7 (7.8)	1930 (6.9)	2221 (8.0)
Kedah	185	92	49.7	6 (6.7)	1547 (5.5)	2821 (10.0)
Perak	278	95	34.2	7 (7.8)	2293 (8.2)	3212 (11.4)
Johore	215	71	33.0	22 (24.4)	6797 (24.2)	7081 (25.2)
Negeri Sembilan	86	28	32.6	10 (11.2)	3022 (10.7)	2862 (10.2)
Malacca	69	22	31.9	4 (4.4)	874 (3.1)	1842 (6.6)
Pahang	98	30	30.6	30 (33.3)	9794 (34.9)	3214 (11.4)
Penang	135	41	30.4	--	--	806 (2.9)
Selangor	284	54	19.0	4 (4.4)	1838 (6.5)	2462 (8.8)
Total	1606	589	440.9	90 (100.0)	28095 (100.0)	28095 (100.1)

source: MacAndrews, 1976; 347 (Table 6.1)

Two qualifying points have to be made here. The first is that because of opposition in the state government in Kelantan until 1970, FELDA was unable for political reasons to open up any scheme in Kelantan. With the replacement of this party by the National Front in 1970, FELDA is now opening up schemes in Kelantan. Secondly, FELDA's operations depend on accessibility, number of settler applications, and the allocation of land for development. Consequently it is not surprising that FELDA reacted to the land made available for its use in those more developed states in the early years and opened up the scheme in Johore and in the West Coast states, and then with the regional development concept, in Jengka in Pahang.

Thus the evidence indicates that while FELDA's development until 1975 has concentrated on the more developed states, FELDA has generally been able to cater to the poorer and landless segment of the population. What has to be done now or in future years is to concentrate FELDA's future development on what have now been operationally defined as the "poorer" states (Perlis, Trengganu, Kelantan, and Kedah).

Whether FELDA has catered to all groups in Malaysia's poor has been questioned. It has been pointed out (IBRD, n.d.) that FELDA caters to Malays and that the poor elements of the other two ethnic groups, the Chinese and the Indians, in Malaysia's multi-ethnic society are not given equal representation. This is clear if we look at ethnic composition of FELDA settlers which in 1975 were composed of 96.2 percent Malay, 2.1 percent Chinese, and 1.6 percent Indian. (MacAndrews, 1976). In contrast it is estimated

that 83.3 percent of the rural housholders below the poverty line are Malay, 10.1 percent Chinese and 5.4 percent Indian (Survey of Rural Poverty, Table 3), and consequently, it is clear that statistically FELDA seems to be favoring the poor rural Malay rather than the "poorer" elements from the other two ethnic groups.

There are factors existing that have and would still in the future, mediate against FELDA achieving an equal ethnic balance. One is the fact that FELDA is and has always been a political organization created to meet a clear political demand for land and employment from the predominantly rural Malay that to the Malay-dominated Government represents its basis of voting power. While the government can change the direction of its rural development policy to try and encompass all three groups, it is the rural Malay who expects to be able to get into FELDA schemes and who at the same time has probably far stronger lines of communication and access through the rural administrative structure to the opportunity of joining FELDA. Secondly, as it has already been pointed out, the rural poverty sector is overwhelmingly Malay and inevitably the Malay peasant or smallholder will have a better chance with his agricultural background and related skills in succeeding in the interview.

A second factor that has to be taken into account is the lack of attraction of FELDA schemes to at least one of the other ethnic groups, the rural Chinese. It is clear that the Chinese tend to

dislike the discipline of FELDA¹.

If one takes these circumstances into consideration, it is clear that while statistically FELDA has tended to and will probably continue to attract mainly the poor rural Malay, it is unlikely that any major adjustment will take place in its overall ethnic balance of settlers due to these existing political, social, and economic factors in Malaysia.

(c) Provision of Economic Holdings

"Economic holdings" are holdings which can provide a livelihood for the settler and his family at a reasonable standard of living without government subsidies after the initial period of settlement. To the settler, a better life includes being able to send his children to school, and access to some, if not all, of the modern conveniences in life. Agriculture is supposed to provide him with an economic holding. Since the mainstay of the holdings are either rubber or oil palm, this means that settlers are dependent on the export prices of these cash crops.

Another economic problem for the FELDA settler, which is perhaps the most difficult task in the eyes of FELDA, is to see to it that he cultivates the land according to practices that will bring about

¹In the early days of FELDA, it was quite frequent for Chinese to leave FELDA schemes in the first year. MacAndrew's case studies (1976) showed that the Chinese tended to live separately in two schemes in question (Bilut Valley and LBJ) and played little part in the organised life of the scheme.

maximum or near maximum yields. Even if he is able to make the best use of his land, he is still not assured of his entitlement to the full value of production. The crop by its very nature may require processing before sale. Beyond this is the question of the price he receives for his product. Thus what one really has to consider is the integration of a range of interrelated economic actions. FELDA has now integrated these separate activities so that it not only controls land development, but chains of marketing and other activities associated with production of a crop. Oil Palm is the best example of state intervention in linked activities; this is due to the relative newness of the industry, and the nature of the crop in which the price factor is directly correlated to the product quality.

Last, but not least, the settler's economic position is not assured and he does not get titular rights to his land until he repays his debt to FELDA, which can be between M\$12,000 to M\$22,000, plus interest to 6.25 percent rate per annum spread over twenty years, depending on costs incurred. (Wafa, 1973; Table 3)

Income and social indicators reflect the economic viability of holdings. In general, oil palm has done better than rubber. Two main reasons are, firstly, world demand for oil palm has been relatively strong and stable; and secondly, oil palm production is organized on a larger scale basis with better control and management techniques of operation. Rubber holdings are farmed on an individual basis and thus tend to show more variation in performance. The income aspect has already been discussed. In terms of social

indicators, MacAndrews' survey (1976) shows that ownership of items like radios, bicycles, and motorcycles is very high, and the number of newspaper readers has increased dramatically. (MacAndrews, 1976; Table 3.7, and Table 4.12)

In the same study, MacAndrews discovered that landlordism has emerged, but not to a large extent, in some oil palm schemes where profitability has been high. In these instances, FELDA settlers hire cheap surplus labor from surrounding areas to work in their stead.

Not all holdings are equally lucrative, and while MacAndrews' study emphasized this aspect resulting in the creation of a "middle class peasantry" on FELDA settlements, other formal and informal accounts have reported significantly different results (Syed Husin Ali, 1974). No study has been made to account for these differences systematically. FELDA itself cites poor management together with poor settler quality as the primary reasons. Another explanation forwarded is the infrastructural environment; schemes located in the developed states close to main transportation and communication networks have fared well, while smaller, more isolated schemes are naturally disadvantaged. As more schemes are located in more backward states, a better basis for acquiring conclusive evidence will be formed.

(d) Improvement of the Economic Position of Malays

FELDA is essentially a Malay organization, as was previously pointed out. Consequently, it has advanced the position of the Malay sector primarily through providing better incomes for settlers,

staffing its organization with Malays, and supporting other Malay-oriented agencies by transacting with them. In view of these factors and its close association with NEP goals and politics, we can safely conclude without further discussion, that FELDA has been, and will remain, largely an organization that reflects and serves, the Malay interest.

4.3.4: Applying the Dependency Framework

(a) External Dependency

From the above discussion, it is clear that the success or failure of FELDA schemes, and hence FELDA's ability to fulfill its long-term goals, hinges on the prices of rubber and oil palm in the world market. The tremendous influence exerted by world market conditions on the Malaysian domestic market has long been reflected in the precarious economic existence of rubber smallholders. They are the marginal producers who have to compete against large rubber-producing companies. In the past, when rubber prices fell, the dissent of these smallholders have erupted into mass riots and demonstrations against the Government. Settlers unhappy over rubber prices have protested by tapping rubber trees badly, or by overtapping in order to maximize returns during periods of high prices. Although Malaysia is one of the main producers of rubber in the world and has produced it since under colonial rule, it has not managed to improve its control over world rubber prices.

In the case of oil palm, there are no smallholders. However, competition is still very keen, and exists among FELDA and the private estates. Few attempts at crop diversification have been

attempted because the oil palm market has been fairly strong, and is expected to continue into the 1980s. Between 1975-78, the average rate of growth for oil palm was 7.6 percent; this figure increased dramatically to 37 percent from 1971 to 1975 (Malaysia, 1979; Table 2.4). The expected increase for 1979-80 is 11.0 percent per annum. Based on past performance and future expectations, producers in both private and public spheres are obviously trying to maximize their earnings while they can. There seems to be very little discussion in the FELDA literature on this problem.

The private estates are large concerns which are in a better position to recoup losses if there is a slump in the market. Since they hire their labor, they can discharge them at will. FELDA on the other hand, has a political responsibility to the settlers. The experiences of FELDA rubber smallholders during periods of low prices indicate that there is little that FELDA can do then.

(b) Internal Dependence

In the discussion of internal dependence, we are chiefly concerned with the way in which FELDA implements its land settlement policy, and specifically, with the development of relations between FELDA and the settler in the FELDA hierarchy. The issues here involve both economic and social questions of development.

In order to achieve its social, political, and economic objectives through a land development scheme that was to be based on cash crops, FELDA was given the mandate to create a group of "modern, aggressive, and business-minded" settlers. The settler's entry into a FELDA

scheme meant an almost complete transformation in his economic and social relationships. He had to develop an ethic that allowed him to adapt to the pattern and requirements of work. The work schedule is usually prepared by the scheme's managers. If he performed well, he then stood a chance of being trained for a managerial or technical position.

The FELDA settler has to be socialized into a cash economy and behave according to its imperatives before he can be successful at making a livelihood from his holding. He would have to learn to budget for certain expenditures, savings and to some extent, investing. In 1967, FELDA set up a Settler Social Development Division, whose policy was to "change the nature of the settlers" by "creating modern and progressive farmers playing a proper role in the commercial and social fields."¹ The meaning of its task stated as such is to harmonize the social aspects of development with the new economic relations forged by the settler's participation in a cash crop economy.

The integration of the farmer into the cash crop economy is at the same time, his integration into the global system of market relations.

Production activities on the holdings are tailored to expected export requirements, and in turn, the work schedules and social

¹FELDA's approach to land development and settlement is based on the concept of providing a "package deal" to settlers. This means that apart from opening new land, planting main crops such as rubber, oil palm, sugarcane, and cocoa, FELDA's activities must also include establishment of infrastructure conducive to both the economic and social well-being of the settlers.

life of the settlers revolve around the production requirements. The planning of these schedules and their implementation initially is the task of the FELDA manager and staff, not of the settlers. The next step in the socialization process would be to create leaders and managers from the settlers themselves.

Rules set by the administration are strictly adhered to, and violation could mean expulsion. The rate of expulsion is not known but strict discipline has been implemented in several ways. Firstly, FELDA requires that all products be sold to the FELDA concern in charge of buying, and not to outside buyers. This became especially important in administering the new ruling that a minimum loan repayment amount be deducted from settlers' monthly incomes, regardless of the gross income. This policy reverses an earlier stated priority placed on incomes. Secondly, a replanting reserve tax is levied on all settlers at low interest rates; this is a form of compulsory saving under which, at the end of the loan repayment when the oil palm is due to be replanted, the settler will have been forced to accumulate not only assets in the form of a house and land but also cash. The settlers do not as yet know whether this cash accumulation will be used by FELDA for replanting "on their behalf" or whether it will be handed back to them in the form of cash. But on the basis of the present typical FELDA yields and the present replanting charge, even if the settler receives the accumulated M\$1,200 per acre back in cash at the end of year 25, the effective interest rate in money terms which he will have received will have been less than 1 percent per annum. (Edwards, 1975;259)

These and other unnecessarily strict rules have earned the FELDA administration the labels of "paternalistic" and "authoritarian". And in so far as FELDA is a government agency, FELDA settlements have been likened to "state farms" rather than "settler cooperatives." This is due to the lack of autonomy and power of independent decision-making by the settlers in general¹.

The high cost of FELDA schemes is a major criticism levied at FELDA. These costs are charged to the settler, with the exception of basic infrastructural costs such as roads, communication links, and utilities. By 1970, the Government had expended a total sum of approximately M\$445 million for FELDA's operation. This is equivalent to M\$1,328 per acre developed, or M\$21,190 per family settled, or M\$4,713 per job created. (Wafa, 1973;20) Wafa's cost calculations include the cost of infrastructure, jungle clearing, land preparation, seed preparation, fertilizers, and management and extension services. He contrasted FELDA's high cost of development against that of the Kelantan State Land Development Authority's (KSLDA), which came to approximately M\$310 per acre developed, M\$1,000 per family settled, and M\$500 per job created -- less than 10 percent of what it cost FELDA to accomplish the same objectives. The high loans incurred by FELDA settlers oblige them to be under the control of the administra-

¹MacAndrews noted the lack of political organizations (except for a United Malays National Organization (UMNO) branch sponsored by the government) in the schemes observed. (1976) Most of the social activities and clubs are sponsored by the Jabatan Kuasa Kerja Raya (JKKR), or Working Council, which is under the direct supervision of the FELDA administration.

tion for a longer period of time (15 to 20 years). They are also being forced to pay for services which could be performed by themselves.

4.3.5: Conclusion

To summarize our conclusions from our analysis of the FELDA strategy, FELDA schemes have been successful in opening up land and in fulfilling its general objectives. With an agency the size of FELDA and the political and financial commitment to succeed, there is little reason why the FELDA scheme should not achieve most of its objectives, at least in the short-run. Given Malaysia's economic situation, few other crops or agricultural strategies could have succeeded as well as rubber and oil palm in terms of profitability. This export-led strategy entails the price of being heavily dependent on world market conditions for the settlers' well-being.

The other aspect of dependence which is indirectly linked to the choice of agricultural strategy, exists within the hierarchy of unequal relations between FELDA officials and settlers. It has been suggested that this form of dependence can inhibit settler initiative and independence in the long-run, and that only "elite" settlers who may have higher incomes, better political connections, and opportunities will be given "leadership" positions, while the rest continue to be dominated by the institution which originally brought them into existence as FELDA settlers. Such mechanisms of differentiation could be expected, over time, to foster relations of unequal power and economic standing within the FELDA community.

4.4: REGIONAL INTEGRATED SCHEMES: THE PAHANG TENGGARA SCHEME

4.4.1: Introduction

Regional Integrated Schemes (RISs) in Peninsular Malaysia are large-scale regional projects which develop the region through opening up existing jungle land for agricultural as well as for urban development. Examples of RISs in Peninsular Malaysia are Pahang Tenggara, Johor Tenggara, and Trengganu Tengah. Their implementation is coordinated by regional authorities set up by the central Government's planning unit (for example, DARA is the coordinating body for the Pahang Tenggara Scheme, KEJORA for Johor Tenggara, and KETENGAH for Trengganu Tengah). The regional authorities work in conjunction with state and federal agencies (e.g., FELDA for land development, FELCRA for land consolidation, and RISDA for rubber replanting).

The Pahang Tenggara Scheme will be our case study for examining the potential of RISs in regional development. Owing to the recent implementation of this scheme (since 1972), there is insufficient data generated and collected on the impact of the scheme to conduct a meaningful evaluation study. In view of the data limitations this analysis will be speculative and tentative rather than conclusive. Based on the Pahang Tenggara regional masterplan studies, scattered reports, and other information available to this writer, we shall generate a series of hypotheses on Pahang Tenggara's potential in achieving its stated goals. In addition, potential problems of emerging structural inequalities and dependence will be discussed.

This section on Pahang Tenggara is organized as follows: plan objectives (4.4.2), the masterplan (4.4.3), evaluation of the regional economic development strategy (4.4.4), hypotheses on plan development (4.4.5), and conclusion (4.4.6).

4.4.2: Plan Objectives

The Pahang Tenggara scheme basically serves the goals of the NEP, which are: eradication of poverty, and restructuring ethnic imbalances in the economy. By locating the scheme in the relatively underdeveloped and predominantly rural, Malay-populated state of Pahang, the national planners have taken a significant step towards achieving NEP goals. In contrast to other rural development schemes, RISs allow more room for participation in an urban environment¹, which therefore increases the Malay's opportunities for upward urban social mobility. This aspect of social-economic development--urbanization--is important in the light of past failures to involve more Malays in the more established urban economies of Kuala Lumpur, Penang, and Ipoh. Besides providing urban environments, the other key features of the plan are agricultural development with crop diversification, and industrial expansion based on local resources and products.

It is envisaged that this two-pronged regional development approach of urban-industrial growth and agricultural development

¹It is commonly known that some settlers leave FELDA schemes because of the lack of access to amenities and services (health, education, entertainment, etc.) in the villages, which are often located linearly along red-earth tracks in isolated settlements in the jungles.

will enable the following objectives to be achieved: to improve productivity and incomes in the area, to create employment through industrialization and urbanization, to settle landless people from Pahang and other states, and provide employment for them, to provide means of acquiring high-level skills, to bring more Malays into the urban sector, to reduce regional gaps between developed and underdeveloped areas in the country, to modernize rural life and improve living conditions among urban poor through provision of a wide range of social services including housing, electricity, water supply, sanitation, transportation, health and medical services, recreational and community facilities.

4.4.3 The Masterplan

(a) Economic Features

The Pahang Tenggara Scheme will, in the period from 1972 to 1990, develop 2.5 million acres of mostly forest land; out of this acreage, 1.5 million acres are suitable for agricultural use. The Pahang Tenggara 'region' is not a true economic region. "There is some justification for following the Pahang border to the south, since the State of Pahang has certain political powers that may affect land use, and--perhaps more important--because the border is not far from the "watershed" between the Kuantan and Johor Bahru zones of influence, or between "the East" and "the South". The border to the west may also makesome sense, less because it is the state border than because it is the edge fo the highly-developed estate area that is tied to Kuala Lumpur, Johor Bahru, and Singapore rather than to Kuantan. The Northern border makes no economic sense

at all; "spread effects" may not swim, but neither do they stop at a river if a bridge is built or ferry service provided. It is obvious that both sides of the river belong to the same economic region" (Pahang I:30). However, for the purposes of this thesis, the term "region" will be used and understood in the context of the above qualifications.

The pre-Pahang Tenggara region is essentially empty¹. The entire labor force is only about 20,000 people, the total population about 60,000, including the towns and villages on the East Coast that lie within the region. There is very little in the way of traditional

¹ Until about 1960 there was very little activity in Pahang Tenggara. During the first 30 years of this century large areas, particularly along the West Coast, were transformed, largely by the planting of rubber trees. This wave of agricultural expansion came to a halt at the borders of the Pahang Tenggara region with the onset of the world depression in 1929. The remaining jungle of Peninsular Malaysia including the Pahang Tenggara was left virtually untouched through depression of the thirties and the War and communist insurrection periods of the forties and fifties. The region was left undisturbed largely for geographical reasons. The good land suitable for agriculture is masked by coastal swamps to the East, and the Tasek (Lake) Bera, Tasek (Lake) Dampar complex of the shallow lakes and swamps in the West. To the North, between the two swampy areas stands the horseshoe of hills surrounding the Jeram and Mentiga river valleys. The southeast corner is blocked by the even more formidable hills of the Lesong, and even the remainder of the southern boundary is marked by a range of hills which form the Pahang-Johore state boundary. To get effective access to the center of the region needed the construction of relatively long roads or railways, and this has only been done since 1960 (Pahang I:19).

agriculture or open unemployment, and the current importance of forestry operations suggests that per capita incomes are relatively high. On the other hand, very little of the region's population is urban; Pekan has less than 5,000 people, Rompin less than 1,500, and there are no other towns except Bukit Ibam with perhaps 2,000 (Pahang I:19). The region lacks the relatively high-productivity urban activities to be found in Kuantan or even in Temerloh and Mentakab.

(i) Land Use

According to the Table 4.6, page 125, less than 40,000 acres were under cultivation, with rubber accounting for nearly half the total. Mixed gardening was second in importance. Since then, however, oil palm and foresting-related activities have become the most important agricultural activities in the area¹.

The table's figures are insignificant for future planning; as 1.5 million acres of cultivable land are brought to use, there is no reason to suppose that the pattern of land use will resemble closely that of the recent past, except that forestry and oil palm will no doubt continue to be major activities in the region.

Examination of the Land Use Map of the Masterplan indicates that FELDA, large private estates, and joint venture estates absorb most of the targeted agricultural land, with very little allotted to small holdings. This is because Pahang Tenggara's success is seen to be tied to the creation of "efficient, well-managed,

¹In early 1971 the acres alienated for oil palm were then six times of total agricultural acreage in 1966, and the acreage already planted to oil palm was about three quarters the total acreage under cultivation in 1966 (Pahang I: 19-20).

Table 4.6: Land Use Patterns in the Pahang Tenggara Scheme, 1966

Land Use	In Project Area (acreas)	Percentage of total planted acreage (%)
Building	1,150	3.0
Mining & Quarrying	683	1.8
Mixed Horticulture	5,078	13.2
Market Gardening	4	-
Rubber	18,986	49.4
Coconut	3,678	9.6
Sago	3	-
Fish Ponds	6	-
Orchards	27	-
Wet Padi	4,965	12.9
Diversified Crops	308	0.8
Shifting Cultivation	3,538	9.2
Total	38,426	99.9*

*Not equal due to rounding off

source: calculated from Pahang I;20 (Table 4.2)

technologically advanced and large scale enterprise in agriculture and forestry". This would facilitate ... "the appearance of employment opportunities for Malay participation in these enterprises at all levels. Small scale enterprises in these fields should be seriously considered only if there is reason to believe that they can be as modern technologically and as well managed as larger scale enterprises in the same field" (Pahang I: 21).

We now turn briefly to Pahang Tenggara's recent activities in the primary sector - agriculture, forestry, and mining.

(ii) Agriculture

Land under the Pahang Tenggara scheme will be alienated to production agencies such as FELDA, DARA joint venture estates, public estates, large and small private estates, and small holdings. As of 1977, 561,182 acres have been alienated or assigned to special agricultural use. Ownership includes the public sector (including FELDA)--331,910 acres; DARA joint ventures--49,202 acres and private estates--180,070 acres. Up to March 1978 out of the total acreage alienated, a total of 235,826 acres have been developed for use in oil palm, rubber, cashew nuts, beef cattle and for research (DARA I:).

(iii) Forestry

Forestry is the other major economic activity in Pahang Tenggara. It has contributed to the increase in export of saw logs and sawn timber between 1975 and 1978, during which the average annual growth rate of sawlogs and sawn timber were 32.7 per cent and 24.0 per cent respectively (Malaysia, 1979: 9). The rate of forest-clearing and logging is so high that many flora and fauna in the forest face

extinction, and that forest reserves may soon be depleted if the current rate of clearing persists. Much of the timber production is an outgrowth of the forest-clearing for land settlement and should slow down with the rate of clearing. However, many logging companies are also taking advantage of the current logging movement to clear non-settlement areas as well.

Two forestry complexes have been established--total 263,000 acres--operated by two recently established timber companies (Perkayuan Tenggara and Lesong Forest Product Sdn. Bhd.)(DARA I: 6). Four areas of 227,400 acres have been earmarked as reserves for tourism, recreation, and maintenance of ecological balance¹.

(iv) Mining

Since 1977, prospecting for base metals has been carried out by DARA and a private company on an area of approximately 194,000 acres. The prospecting is expected to be completed in 1980 (DARA I: 6).

(v) Industrialization

The economic base of the Pahang Tenggara Scheme is clearly its agricultural and natural resources since there has been a strong world demand for their products--oil palm, timber, and rubber--in recent years. However, agricultural and rural development remains only one aspect, though a significant one, of the

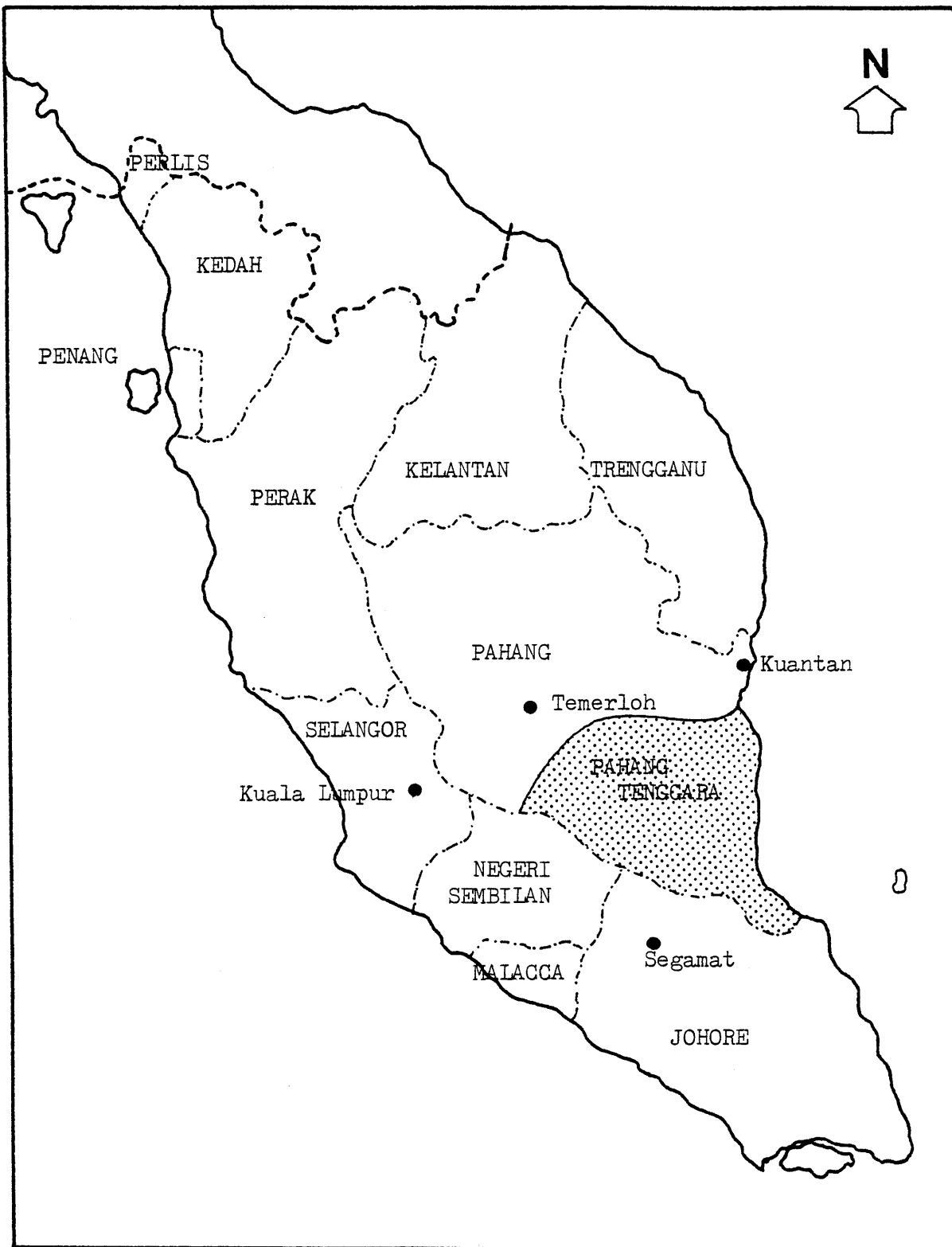
¹These comprise the Tasek Cini Reserve (12,900 acres), Tasek Bera Reserve (78,900 acres), the coastal forests (40,000 acres) and the Endau/Rompin (95,600 acres). (DARA I: 6).

Pahang Tenggara regional development plan. In order to achieve its employment, urbanization, and other stated goals, DARA recognizes that an industrial strategy must be integrated into the regional economy. Industrialization serves three main purposes in Pahang Tenggara: it is a means to correct spatially unequal industrial development; it will enable greater bumiputra participation in urban activities; by using a growth pole strategy, industrialization will, supposedly, generate spread effects throughout the region.

It is recognized by planners that no growth center nor growth pole presently exists in Pahang Tenggara. However there are three urban centers at the region's periphery which influence the region--Kuantan to the North, Segamat to the South, and Temerloh/Mentakab to the West (see Figure 4.1). Pahang Tenggara, bounded by these three centers, is at the intersection of their zones of influence. This further attests to why Pahang Tenggara cannot be considered a true economic region. Kuantan is the largest of the three centers and, because Kuantan is located in the same state as Pahang Tenggara, it will have the strongest effect. According to Benjamin Higgins (1971), Kuantan is not a true growth pole in that it cannot independently generate spread effects, like Kuala Lumpur or Singapore. Kuantan is, however, able to grow as a result of Kuala Lumpur's influence; hence it is a growth center. With the construction of the multi-million dollar deep sea port at Kuantan¹, which can accommodate its tankers, its growth center

¹The current status of this facility is that the central government has decided to take over its implementation from state authorities, after technical faults (cracks in the foundation) were discovered in its design and construction.

Figure 4.1: Peninsular Malaysia: Locating Pahang Tenggara



source: DARA I (Figure 1)

status is expected to be enhanced. Initially such a port would mainly serve as a bulk export port, and the flow of two to three million tons of exports would encourage the development of processing industries and a high level of services, in or near Kuantan. However in time, some of this activity would spill into the hinterland. Pahang Tenggara is therefore seen as part of the Kuantan region (Pahang I: 30), and industrialization using a growth pole strategy must then occur through Kuantan, the regional center. With regard to the development of Pahang Tenggara's own regional center, Higgins feels that this strategy is unwise, given that Kuala Lumpur's position as growth pole is not yet consolidated, and that Kuantan's position as regional center should be established--no easy task in itself--before dispersing industries into the rest of the region (Higgins, 1971: 18).

The industrial strategy is recognized to be a longterm development strategy for Pahang Tenggara, compared to the immediacy of agricultural development and land settlement. Two types of industries are expected to develop: resource-based industries which process the products of the primary sector, and manufacturing which may be people or otherwise related, but does not depend on local primary resources. The second type of industry would be those mainly in the Kelang Valley and West Coast in general, and the 'footloose' industries; they would probably have to be attracted to Pahang Tenggara through a system of incentives. The industrial policy is still evolving. The growth pole strategy is important because it affects the continuous ability of Pahang Tenggara to

absorb its own increase in population as well as settlers from other parts of the country.

4.4.3 (b) Physical Features

(i) Urban Hierarchy

The Masterplan proposed the establishment of 36 new townships in the Pahang Tenggara region for the settlement of immigrants. Urbanization in regional development serves two important needs: the needs of production and the needs of consumption.

The latter is perhaps more obvious and easily understood when we relate towns to the institutional and commercial services they provide: police and fire stations; health; administrative, social, and recreational facilities; sophisticated shopping centers that sell goods unavailable in villages or smaller towns; and, perhaps most important of all, access to the wider world through educational facilities, and transport and communications networks. All these amenities which help to characterize urbanity are also generally accepted as indicators of higher standards of living. The location of such facilities in "urban areas" and the tendency for them to be found in clusters is due to the "agglomeration" effect in which economies-of-scale operate. All towns therefore serve populations beyond those residing within the town limits. However, since not all towns are similar in their development, and not all scale economies are the same, there exist urban hierarchies which largely reflect differences in agglomeration effects¹.

¹The 'rank-size rule' is often used to describe city systems in which the population of cities are related to that of the largest city and to their size ranks. The 'rule' states that the population of any city tends to be equal to that of the largest city (sometimes called the 'private city') divided by the city's rank in size.

The distances between towns are designed according to the size of the market area of each town. In the case of an underdeveloped region like Pahang Tenggara where the bulk of economic activities are to result from planned efforts, an urban system which complements the development strategy is required. The Land Use Plan shows that the population engaged in the planned activities will be fairly well-distributed throughout the region. However instead of housing them in scattered village settlements, it will be planned such that more can inhabit town areas where they can escape the isolated existence of estates and Felda-type schemes. And in order that the designated 'towns' do not fall into the village category owing to lack of services, they have to be integrated into a hierarchy of towns in which higher-order towns have more widespread zones of influence and serve smaller towns. This type of hierarchy was developed for Pahang Tenggara. The regional center is Mu'adzaam Shah, with a projected population of 50,000 in 1990, which is located at the peripheries of the zones of influence of Kuantan, Segamat, and Temerloh/Mentakab. Spreading out in wave-like form from the center is a hierarchy of towns over the region. The regional center, at this point, is defined mainly in terms of its physical infrastructure and level of social and commercial services it can potentially provide.

Physical infrastructure alone does not determine the viability of a regional center, even if many services are provided. In the previous section, we discussed Pahang Tenggara's growth pole strategy in which trickle-down or spread effects can potentially benefit the

the whole region. One method of facilitating 'spread effects' in LDGSs where urban systems are not well developed, is to in fact build these hierarchies much like the case of Pahang Tenggara. With the basic infrastructure in place, these regional towns can conceptually 'capture' any spillover industries from the main growth center, thereby contributing to the 'trickle-down' process. This has to do with linkages which will be discussed in the following section. Not only can productive activities enter the 'periphery' through this network, but also, the nodes in the network can act as important collection and distribution centers for agricultural products back to the center to be processed or exported.

This double purpose of the urban hierarchy will depend on several factors. They are the correct identification of sub-centers, and the ability of 'spread' effects to materialize as envisaged. As of 1977, of the seventeen new towns established during the Second and Third Malaysia Plans, fourteen have so far been planned. Construction works have started in seven. They are Bandar Mu'adzaam Shah, Tun Abdul Razak, Giri, Ibam, Kota Bahagia, Cenderawasih, and Perwira Jaya. By 1980 it is expected that the fourteen towns would be ready to receive immigrants. At present more than 20,000 people have immigrated to the Pahang Tenggara region (DARA I:7).

(ii) Regional Infrastructure

The Masterplan envisages the construction of 354 miles of primary and secondary roads in the region. Highway construction is one of the most important infrastructural facilities because it has the potential effect of "opening up" the eastern corridor to the West.

The government has committed itself to the construction of a main north-south road artery through the region to provide a good road connection between the Kuantan area of Pahang, Trengganu, and Kelantan on the one hand, with Segamat and the adjoining areas of the states of Johore, Negeri Sembilan, and Malacca on the other hand.

Within Pahang Tenggara, the much less dispersed settlement scheme means that there is considerable need for good transportation networks between town settlements and work areas. Transport costs would naturally increase with the concentration of settlements.

4.4.4: Evaluation of Pahang Tenggara Scheme's Development Strategy

For this section, an evaluation of the Pahang Tenggara regional development strategy will be carried out. We shall then predict whether the Pahang Tenggara Master plan objectives can be realized. The main objective of this evaluation is to indicate where and how structural inequalities leading to dependence and underdevelopment might arise.

The economic development strategy as described in the previous section is based on short-term primary sector development and long-term industrial development. The short-term strategy is based on export of oil palm and forestry products. The problems of depending on oil palm as a major export have already been discussed under "FELDA schemes". As for forestry, this resource is exhaustible; hence it cannot be relied on as a permanent source of growth. An attempt is being made to introduce other crops (rice, tapioca, sago, fruits) but they are not given any priority in the consideration

of land use options in the Masterplan. The three main crops considered are cash crops, rather than local-consumption crops, and they are rubber, oil palm and forestry-wood-products complexes (Pahang I: 67).

Agro-based industrialization is the first stage in the long-term industrialization plan in Pahang Tenggara. These would be secondary processing and manufacturing based on oil palm, rubber, and timber. These industries, through their raw material base, would face similar problems of dependence on world market demand and prices as their agro-bases. This implies, therefore, that the potential of resource-based industries in achieving the Plan's goals is a limited one. Once all arable land is used up, it will be a matter of time before the demand for employment generated by agri-complexes and their related industries dry up. In view of this limitation, the long-term development strategy is therefore based on manufacturing ('footloose') industries which are not tied to location, resources or people in any definite way. Quaternary, that is, sophisticated export services would also be desirable economic activities, according to the Masterplan. Such enterprises will be needed also in order to attract to the region a population in the neighborhood of 500,000 people suggested as a reasonable target for the region, without aggravating the income gap between the East and the more prosperous regions of the country.

By definition, footloose enterprises are "export oriented" to some degree. One might distinguish a whole hierarchy of footloose enterprises in terms of the market they are designed to serve:

- (i) Those located in market towns which "export" in the sense that people come from a wider area to the towns to buy their products.
- (ii) Those exporting to wholesalers, retailers or processors in other towns in the region and thus serving a regional market.
- (iii) Those exporting to cities outside the region and thus serving a national market.
- (iv) Those exporting to the world market.

(iii) and (iv), whose scale of activities do not depend on the size of the regional population, might be regarded as the truly "footloose" enterprises. Such enterprises tend to be scientifically oriented, sophisticated, international and multi-product (conglomerate). They also tend to be difficult to attract because Pahang Tenggara faces strong competition for them from other regions¹.

The problem of attracting footloose industries compounds the difficulties of the growth center approach adopted by the Masterplan. Let us now consider two possible cases:

- (a) where footloose industries could indeed be attracted to Pahang Tenggara; and
- (b) where footloose industries are absent, in which case, two events could occur -- no industrialization beyond resource-based industrialization, or import-substitution industrialization.

¹Two other regional schemes--Johor Tenggara, and Trengganu Tengah--lie adjacent to Pahang Tenggara. Johor Tenggara is in a more favorable position than Trengganu Tengah or Pahang Tenggara to win some of the footloose industries because of its position in between two major metropolitan centers--Singapore and Kuala Lumpur.

(a) Growth center development with footloose industries

Assuming that the ideal case does occur, what would regional development in Pahang Tenggara be like? In order to ascertain whether location of footloose industries in a regional center, say Kuantan, can lead to spread effects in the growth-pole tradition, more information on the linkages of these industries would have to be obtained. At present, growth pole theory is unable to identify propulsive industries and linkages. Since footloose industries tend to function best in "center" environments in which external economies of scale exist, the expectation that they would locate in the periphery is rather unrealistic. As to whether linkages can exist within the region, this depends on the nature of the industry and its products. Large companies catering to international markets (presumably many would be multinational corporations) tend to have their own chains of suppliers and marketing networks. In addition, backward linkages of such enterprises would tend to be industries producing relatively sophisticated products; hence it is unlikely that backward linkages could occur within the region. External linkages between regions are fairly common, especially between a poorer and a richer region. It has been observed that linkage effects often go back to the "core" rather than to the periphery because of agglomeration effects in the core. In this case, the location of a new industry or industrial complex can more easily activate backward linkages in the Kelang Valley (where industrial activity is already established) than in Pahang Tenggara. This occurrence would tend to increase Pahang Tenggara's dependence

on the "center" (Kuala Lumpur metropolis) rather than reduce it. This situation will not alter itself so long as the firm's rate of return is maximized in the existing fashion. The social rate of return may be higher if linkages to the periphery are activated, but firms will not take the initiative unless some of these benefits accrue to them. Left to the market, this undesirable situation will not be reversed. Only conscious policy can achieve the desired outcome.

(b) Growth Center development in the absence of footloose industries

The failure to attract or initiate footloose industries could mean a limitation on Pahang Tenggara's industrialization strategy. The alternative is import-substitution industrialization. Such industries would be on a smaller-scale than footloose industries and probably financed by local capital. It could either serve local and regional markets or the wider national market. Some protective policies would be required, but probably at no greater cost than the incentives given to attract footloose industries to backward regions. This strategy is not included among the options listed in the Masterplan.

Because import-substitution industries serve local markets and the production technology is less sophisticated, there is a greater probability that their related linkages would be activated within the same, or in nearby regions. This strategy may be more limited than the previous one in terms of generating employment but it would help to develop less-dependent and more self-sustaining industrial growth. The urban hierarchy described in the previous

section would form a natural distribution system in the region for these industries. Import-substitution industries can either be "attracted" away from other areas, or they can be encouraged to develop locally once there is a local market for consumption goods. This strategy is also subject to favorable conditions, like any other strategy, but perhaps its supporting structure, which is not now included, can be provided in the Masterplan without excessive expense.

Given the problems of Pahang Tenggara's industrialization strategy, it can be concluded that the adoption of the growth center approach that the adoption of the growth center approach as envisaged by the planners, does not provide a viable industrialization strategy in Pahang Tenggara's development.

4.4.5: Hypotheses on Pahang Tenggara's development

Based on our evaluation of Pahang Tenggara's regional economic strategy, we can now discuss a few hypotheses about its development:

- (a) Polarization in the economy
- (b) Dependence (i) on the central government,
 - (ii) inter-regional dependence
 - (iii) external dependence

(a) Polarization in the economy

(i) Economic concentration in Agriculture

By 1990, the total percentage distribution of Pahang Tenggara land alienated will be 35.2 per cent to large private estates, 1.0 per cent to small private estates, 6.9 per cent to private smallholdings, 6.5 per cent to mixed joint ventures, 44.0 per cent

to public sector (FELDA), and 6.4 per cent to other public sector (see Table 4.7). Oil palm cannot be planted on a small scale for reasons already discussed, and since the projected oil palm acreage in Pahang Tenggara for 1990 is 60.4 per cent (see Table 4.8), hence most of the agricultural land would be under the control of large concerns. Although Felda projects (which involve individual ownership by settlers) take up 44 per cent of the projected total acreage of agricultural land, not all FELDA land is owned by individual settlers, and furthermore, settlers have very little control over production. The only real small-scale producers are the private smallholders, who receives only 6.9 per cent of the alienated acreage. Another dimension of increasing inequality would be between the small producers in the pre-Pahang Tenggara economy who remain uninvolved in the new schemes. No data on their existence is available as yet; while insignificant to the Pahang Tenggara venture, they represent the lowest strata in the region's production hierarchy. In forestry, many logging operations which are presently contracted to small loggers will be phased out to make way for forestry-wood-logging complexes to be set up by the government. The large concerns comprise public and private enterprises; the latter would most probably be mainly foreign since there is some resistance to non-Malay (Chinese) investment in Pahang Tenggara. The role of public enterprises, which was elaborated in Chapter 3; is very important in contributing to economic polarization in Pahang Tenggara. According to informal sources, government-sponsored government-sponsored government enterprises have taken over a large part of investment activities not only in agriculture but in general

Table 4.7: Projected Structure of Agricultural Investments, 1990

	Private Sector			Mixed Joint Ventures	Public Sector		TOTAL
	Large Estates	Small Estates	Small- holdings		FELDA	Other	
Total (acres)	339,100	9,800	66,700	62,700	422,500	60,450	960,900 ^a
Percent Distribu- tion (%)	35.2	1.0	6.9	6.5	44.0	6.4	100.0

a. 8,000 acres assumed removed for watershed management purposes

source: DARA III, 1978 (Table A.3)

Table 4.8: Pahang Tenggara: Projected Agricultural Land Use Pattern, 1990

Crop	Oil Palm	Rubber	Diversified Crops	Padi/ Rice	Cocoa	Beet	Tapioca	Sago	Tea	Total
Total Acreage	491,600	108,400	116,700	-	51,000	29,800	11,300	3,900	1,300	814,000
Percentage Distribution (%)	60.4	13.3	14.3	-	6.3	3.7	1.4	0.4	0.2	100.0

source: DARA III, 1978 (Table A.4)

activities owing to insufficient response by investors to invest in Pahang Tenggara. One strong reason for this lagging investment response is that the investment potential of Pahang Tenggara falls behind that of Johor Tenggara, a scheme that is said to be much more 'profit-oriented' than the Pahang Tenggara scheme.

(ii) Concentration in Industry

Given the present approach of DARA towards solving employment and income problems through large-scale modern complexes, it is likely that industrial conglomerates (both foreign and local) will dominate the industrial hierarchy. There is no attempt to encourage the development of small-scale industry since this will not support the government's urbanization objectives. And if private firms respond more favorably to investment opportunities outside Pahang Tenggara, then public enterprises will probably end up taking the initiative to begin the industrialization process. In any case, for the time being at least, large-scale concentrated production is on the agenda for Pahang Tenggara.

(b) Dependence

(i) Dependence on government

This is a strong likelihood. Because of the low potential of Pahang Tenggara as an investment area, the central government will play a greater role to support the scheme in order to achieve its political objectives. This has already been demonstrated in the case of the Kuantan seaport fiasco described earlier. Another aspect of the strong role of the state lies in its urbanization objectives; this means that heavy infra-structural

development is required in building towns and related regional infrastructure. Government influence could be reduced if more private or local activities were developed, or if regional-local government influence were increased.

(ii) Dependence on the Metropolis

Pahang Tenggara will remain dependent on the Kuala Lumpur "center" and other regional centers for imports of manufactured goods for some time to come. Also in the light of (a), its dependence on the Government, a link is forged between the elites in Pahang Tenggara (either indigenous or imported as skilled labor and professionals) which will tend to reproduce itself over time.

(iii) External Dependence

External dependence has been dealt with in some detail in earlier discussions. To summarize, the important external dependency relationships occur through imported capital (foreign investment), imported technology, and export of cash crops whose prices are externally determined.

4.4.6: Conclusion: Partial fulfillment of Pahang Tenggara goals

This is the logical conclusion to draw from our analysis of the Pahang Tenggara regional development strategy. Migration and employment of landless settlers has begun and will continue until the economy is unable to absorb them anymore. Productive activities increase because of the new technology and production organization necessitated by estates and new crops. However, whether incomes can increase to any large extent depends on many variables, the most important being the economic and social structure itself.

The socio-economic structure conditions the ability of the settlers and wage-workers to improve their incomes and living conditions. While settler-owners' incomes are influenced by the world market, wage-employees' incomes depend on the local institutional structure as well as the 'protection' of the Government in ensuring a minimum wage rate. The poles of the contradiction in this case would be the assurance of relatively good incomes and the likely necessity that "cheap labor" would have to be used as a means to attract footloose industries to the region. As for the urbanization objective, 90-95 per cent of the population are expected to be located in towns by 1990 (DARA III, 1978: 23).

An area that is likely to be successful is racial restructuring, since almost all new activities will have a heavy bumiputra concentration. In this respect, by 1990 Pahang Tenggara may well exceed other regions in terms of bumiputra participation in "modern" urban enterprises.

CHAPTER 5: SUMMARY AND CONCLUSIONS

Firstly, a summary of our findings from the previous chapters will be presented. Secondly, a comparison of the three regional strategies will be made in terms of their potential in achieving income redistribution, employment generation, and social development in Peninsular Malaysia. Finally, some concluding comments will be made on the usefulness of the Dependency Framework for analyzing our three cases. In particular, we shall discuss the limitations of this theory in explaining the dynamics of changes taking place during the process of integration of a pre-capitalist economy into the global capitalist system.

5.1: Summary of Findings

We have considered two aspects of economic development in Malaysia, industrial and agricultural. Industrialization, especially when applied in a laissez-faire framework, produced distinct polarizing trends in the social, economic, and spatial dimensions of Peninsular Malaysian society. Agricultural development was not entirely neglected while industrialization was being implemented, but it did not flourish. This was because rural policies did not alter the basic socio-economic structures that were the remnants of colonialism, and that continued to perpetuate unequal development. As national income disparities widened and ethnic conflicts erupted, the government was forced to take more concrete measures to improve rural conditions and to better the lot of its Malay electorate. The New Economic Policy resulted in attempts to "eradicate poverty" through industrial growth,

urbanization, and improvement of rural economic conditions. The current industrial growth strategy is export-based, for the time being, following its historical tendencies; investment will gravitate towards the industrialized areas and hence, will aggravate the existing trends in economic and spatial polarization. The long-term objective is to initiate the relocation of firms to the peripheral areas by use of direct incentives and "growth pole" strategies.

In the meantime, the government has decided to develop the "frontier" and "lagging" regions through the initiation of in situ agricultural development, land development and settlement, and integrated regional development. The intent of these strategies is to raise productivity and incomes against a backdrop of massive public expenditure on education, manpower training, health, social services, and infrastructure. The unemployment problem, which did not improve during the industrialization phase of the 1950's and 1960's, will also be reduced as a result of these new programs. The underlying principle of these three strategies is that the systematic inclusion of sectors of the unemployed population into the market system will lead to the fulfillment of the goals of the NEP.

In the case of the MUDA Project, the infusion of Green Revolution technology made possible double-cropping and the achievement of the self-sufficiency objective. The result was that the MUDA padi producers produced much more for the market. Thus they have become more specialized in padi production and

their livelihoods now depend more on the market for favorable prices to generate enough income for their consumption needs. The consolidation of market-type relations in the MUDA case has brought to surface several developing structural inequalities: increase in farm size concentration, widening income distribution, increase in large commercial farms, and eventual displacement of tenant-operators. In other words, social class differentiation is occurring at a visible rate among the MUDA peasantry. The implications of Green Revolution technology for dependency have also been raised. Dependence, which is associated with the uni-directional flow of surplus to international or local centers of economic power, was identified in the context of the emerging social differentiation process. Two types of dependence involving center-periphery relations-- firstly, with the industrial centers (mainly through the supply of Green Revolution technology), and secondly, with local centers of power-- had emerged in the MUDA area.

In the FELDA scheme, the market integration process was consolidated through the establishment of large-scale rubber and oil palm estates. There is no import substitution rationale here, unlike in the MUDA case. The market for these schemes is obviously externally-dependent as is the technology governing methods. The element of modernizing traditional peasant attitudes into adopting the values of entrepreneurship was an important aspect of the settler program. In terms of social class differentiation, the existing data regarding the social status of FELDA settlers was inconclusive. We may conclude that the process of

class formation is still occurring; the available evidence seem to support, to some extent, both hypotheses (i.e., of FELDA settlers as a middle-peasantry, and as an exploited class of workers). The high cost of FELDA schemes was a major factor in explaining the relatively high incomes of some FELDA settlers; however, there are indications that this costly program may be reduced in the future in favor of more centralized and estate-like operations which do not involve land ownership. It remains to be seen whether the middle-class peasant produced by FELDA represents a systematic program feature rather than a particular historical incident.

RIS development is yet another method of further integrating the traditional peasantry into the system of market relations. While it involves FELDA-type land settlement, its main characteristic is urbanization rather than land ownership. We examined the problems of growth pole strategy, but that analysis in itself does not illuminate the dynamics of the integration process. Again, we must turn to socio-economic formations which allow the possibility of analyzing emerging structural inequalities and dependency. Based on the plans being implemented in Pahang Tenggara, we predicted that socio-economic inequalities will arise out of both the agricultural and industrial contexts. Both of these strategies of development (except where FELDA schemes involving land ownership exist) require the migrant settler to become a wage laborer operating under labor market conditions. As such, there is no mechanism designed to ensure

that the worker will not be exploited by low wages and employment instability. In this case, the settler's dependence on the system has been formulated in terms of external dependence (since the Pahang Tenggara economy is an export-oriented one), and internal dependence on local market and institutional factors which determine both wage and employment levels. These were the conclusions derived from our analysis of the three schemes.

5.2: Comparison of the three strategies

The previous section focussed on the general similarities among the three strategies considered. We shall now distinguish their contrasting characteristics by comparing their potential in terms of income and property redistribution, employment generation, and social development.

(a) Income and property redistribution: From earlier discussions on the income impacts of the three schemes, it was clear that FELDA had a better overall income-generating record than MUDA. In the case of studies which suggested the "middle-peasantry" hypothesis, all settlers appeared to have benefited relatively equally as compared to MUDA, in which the larger farmers benefited more. The difference is due to different starting points in the two schemes; FELDA's settlers (at least in a single scheme) obtained approximately equal acreages whereas MUDA farmers' farm sizes were exogenously determined. The variables in both schemes were, of course, market prices; FELDA's being mainly dependent on the world market prices, while MUDA's are dependent on a combination of market and institutional factors. FELDA's

redistributive potential is hence greater provided it is applied widely enough to affect most landless peasants (which is not the case at present). The Pahang Tenggara scheme is relatively weaker than FELDA in terms of redistribution because of its lack of commitment to property ownership and to its weak mechanism for raising incomes of settlers. Pahang Tenggara's potential lies in its offer of urban services; education and access to the wider world being two of the most important advantages.

(b) Employment generation: This is an area in which marked contrasts exist among the three strategies. MUDA's employment creation capacity was positive when double-cropping was introduced. Shortage of labor drew surplus labor from non-MUDA areas. However, as was noted, part of this shortage is artificial and only a temporary phenomenon caused by the particular scheduling of water released for irrigation (refer to Chapter 4.2, page 77 for details). Another factor which is labor-displacing is the increase in the use of machinery substitutes for labor (such as combine harvestors and transplantors). The initial employment generated by double-cropping is a limited one, whereas mechanization is on the increase, and is likely to continue displacing labor. FELDA's record in employment generation is relatively less impressive if we consider the high costs and low rate of settlement. However, FELDA farmers who are settled face a further employment problem in that land is a scarce resource that, by FELDA law, cannot be fragmented. Hence second generation employment problems immediately surface when we consider that the average FELDA family

has four children. There is very little chance that all the second generation will be absorbed into other FELDA settlements since the waiting list is long. The fate of the second generation unemployed depends to a large extent on the status of the first generation settler. Higher incomes would provide better opportunities for education and upward mobility for the second generation, whereas low incomes would relegate them to the ranks of wage workers or the unemployed. RISs offer the best potential for employment creation because of the prospect of industrialization and the extension of tertiary services. Even though industrial development meets with obstacles, urban services would be able to absorb a sizeable number of the unemployed.

(c) Social development: Social development as a goal of development is the least clearly defined among all the objectives of government programs (Sturgis, 1980). At the minimum, social development involves a satisfaction of the tangible needs of a society -- this means a reasonable income, housing, utilities, educational, health, and recreational facilities. The intangibles are less explicit. Bound up with the settlement concept are contradictory ideals of producing "modern enterprising and competitive" settlers on the one hand, and of preserving traditional community values such as cooperation on the other. Social development potential can be related to the existence of physical and social infrastructure in a scheme. MUDA, because of its relatively early conception, its lack of social infrastructural development, and its essentially traditional social structure, has the least potential in terms of

fostering any of the concepts of social development described above. The physical infrastructure goals of FELDA are considerably lower than those of Pahang Tenggara. Consequently, they are easier to achieve, even though the initial products are very spartan.

A description of a typical FELDA house follows ...

"The house is a small two bedroom house of relatively rough, unpainted timber. There is a standpipe for every two to four houses. It is pioneer living for the first few years and a continuing cycle of the mud-dust syndrome. What is impressive is that in more mature FELDA schemes it is common to find 80 to 90 percent of the homes improved by the settlers. In some instances, houses have been rebuilt and bricked." (Sturgis, 1980: 16)

Pahang Tenggara's physical infrastructure includes models that show "green space, lakes, and golf course" and while these may not be the most important elements in social development, Pahang Tenggara, in comparison to the other two schemes, does have the greatest potential in terms of physical infrastructural support. The inclusion of towns of over 50,000 in population means that the potential for providing higher levels of services is hypothetically there.

However, if social development is viewed from a community point of view, MUDA is the only scheme which retains a natural social structure of any kind. FELDA and Pahang Tenggara communities are artificially created by putting migrants from different areas and sub-cultures together, with few historical or personal ties. In an environment of competition, FELDA settlers have been known to compete rather than cooperate, and therefore, to widen existing cultural and regional differences. Pahang Tenggara exhibits similar

problems, added to which are urbanization factors that tend to negate, rather than enhance, strong community or social values. The traditional structure in MUDA may be undergoing deep changes, but at least there is a foundation on which social (community) development can be built. On the other hand, Pahang Tenggara's higher concentration of investment and services offers a dimension of social development which would be difficult to reproduce in non-urban environments like the MUDA and FELDA schemes.

5.3: Usefulness of the Dependency Framework in Regional Analysis

The Frank model of underdevelopment and dependency taken in conjunction with the modifications provided by Cardoso has proved to be useful in our analysis in certain respects. Although Frank's model was originally applied to relations between countries, we found the model applicable to conditions within LDCs. In the case of Peninsula Malaysia, we analyzed the three schemes using this framework. The concept of "underdevelopment" was used in the original sense conveyed by Frank in his study of Brazil when he used it to describe poverty, the overwhelming absence of social services, and generally, a poor and depressed economy following a period of superficial growth and prosperity during the foreign investment phase. Conditions in our three schemes do not entirely support this concept. On the whole, the schemes have provided better than average rural incomes.

The concept of "dependence" was found to be more useful and more readily adaptable than "underdevelopment" because it was not confined to the identification of conspicuous aspects of

poverty. "dependence" was related to structural inequalities caused by the changes introduced by the schemes in which exploitation (i.e. a unidirectional transfer of surplus) occurred.

"Dependence" is thus a very specific concept; it is not an aspect of interdependence, which must arise from any system involving division of labor; nor is it merely a dependence on the market system, as all participants, regardless of social origins, would be dependent on the market as consumers and producers.

The limitations of the Frank model of dependency lie in its lack of theoretical explanation of the dynamics of the changes discussed in our three cases. While the model allows the articulation of problems of dependence and even underdevelopment in relations generated between "core" and "periphery", it does not provide any further insight into the mechanisms and processes of integration into the market system. Thus, in this study of dependency in Malaysia, we have not elevated the concept of "dependency" to a theoretical level.

If the dependency framework is to be used in regional analysis and planning, it has to be further developed in the area of theoretical rigor. Otherwise it will remain at the present level, which is that of a general paradigm, that cannot be meaningfully applied in policy and practice.

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