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MALAYSIA

REGIONAL DEVELOPMENT AND URBANIZATION

IN THE NORTHEAST

(In Three Volumes)

VOLUME ONE: SUMMARY REPORT

July 9, 1982

East Asia and Pacific Projects Department
Urban and Water Supply Division

Urban Development Department
Operations Review and Support Unit

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CURRENCY EQUIVALENTS

Currency Unit - M\$

US\$	=	M\$ 2.25
M\$	=	US\$0.444
M\$ 1 million	=	US\$444,000

AGENCIES

ASEAN	-	Association of Southeast Asian Nations
BDA	-	Bintulu Development Authority
DARA	-	Pahang Tenggara Regional Development Authority
DID	-	Drainage and Irrigation Department
EPMI	-	Esso Production Malaysia Incorporated
EPU	-	Economic Planning Unit (in Prime Minister's Office)
FELCRA	-	Federal Land Consolidation and Rehabilitation Authority
FELDA	-	Federal Land Development Authority
HICOM	-	Heavy Industries Corporation of Malaysia
JKR	-	Ministry of Public Works
KBM	-	Kota Bharu Municipality
KESEDAR	-	Kelantan Selatan Regional Development Authority
KETENGAH	-	Trengganu Tengah Regional Development Authority
KTM	-	Kuala Trengganu Municipality
MARA	-	Majlis Amanah Rakyat
MADRI	-	Malaysian Agricultural Research and Development Institute
MAS	-	Malaysian Airline System
MBSB	-	Malaysian Building Society Berhad
MIDA	-	Malaysian Industrial Development Authority
MIDF	-	Malaysian Industrial Development Finance
MIDFIC	-	Malaysian Industrial Development Finance Industrial Consultants
MMC	-	Malaysian Mining Corporation
MRPRA	-	Malaysian Rubber Producers Association
NEB or (LLN)	-	National Electricity Board
NEP	-	New Economic Policy
PETRONAS	-	National Petroleum Corporation
PORIM	-	Palm Oil Research Institute of Malaysia
RISDA	-	Rubber Industry Smallholders Development Authority
RRIM	-	Rubber Research Institute of Malaysia
SEDC	-	State Economic Development Corporation
SEPU	-	State Economic Planning Unit
TAKDIR	-	Kelantan State Land Development Board
TCPD	-	Town and Country Planning Department
TDC	-	Tourist Development Corporation

ABBREVIATIONS

TMP	-	Third Malaysia Plan
FMP	-	Fourth Malaysia Plan
GDP	-	Gross Domestic Product
GRP	-	Gross Regional Product
IE	-	Industrial Estates
LI	-	Location Incentives
LNG	-	Liquified Natural Gas

GOVERNMENT OF MALAYSIA

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MALAYSIAREGIONAL DEVELOPMENT AND URBANIZATION IN THE NORTHEASTVOLUME ONE: SUMMARY REPORTTable of Contents

	<u>Page No.</u>
EXECUTIVE SUMMARY	i
SUMMARY	1
A. THE REGION AND THE APPROACH TO REGIONAL DEVELOPMENT	1
The Regional Problem	1
Sources of Regional Income Differences.	3
Labor Markets.	3
Interregional Migration	4
The Opportunity for Regional Development	5
B. ISSUES IN THE DEVELOPMENT OF THE NORTHEAST.	6
Transport Network Improvements.	6
Expanding Primary Sector Output and Opening the Hinterland.	9
Shift in Regional Production Structure Towards Industry.	11
Shift in the Spatial Distribution of the Region's Population	14
Urban Development at the Local Level: Kota Bharu, Kuala Trengganu and the Southern Trengganu Coastal Complex	16
C. ASPECTS OF THE REGION'S DEVELOPMENT IN NEED OF RECONSIDERATION.	19

This report is based on the findings of a mission consisting of F. Temple (Mission Chief), Z. Shalizi (Economist), B. Von Rabenau (Economist, consultant), D. Race (Engineer, consultant) and A. Choudhury (Urban Planner, consultant), which visited Malaysia from August 17 until September 5, 1981. Ms. S. Velji (Research Assistant) contributed to the demographic analysis. Ms. B. Blake and Ms. S. Chokechaitanasin assisted in the preparation of the report.

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MALAYSIA

REGIONAL DEVELOPMENT AND URBANIZATION IN THE NORTHEAST

Executive Summary

i. The Government of Malaysia and the World Bank agreed that it would be timely to study the development of the northeastern states of Kelantan and Trengganu in order to review and integrate several recent studies from a regional perspective, assess the cumulative impacts of some of the major programs being implemented in the region and examine the prospects for achieving the ambitious growth rate projected for the region in the FMP. The terms of reference for the study were to review the region's growth prospects, identify inconsistencies and deficiencies in the existing studies and strategies, and indicate priority problems meriting further review. The Government's equity and distributional goals for the region were taken as a starting point for the study, and the report identifies ways in which the effectiveness and efficiency of the strategies, programs and projects intended to achieve these goals can be improved.

ii. The growth targets and development programs for the Northeast are very ambitious. The report suggests that regional growth rates substantially above the peninsular average during the 1980s as projected in the FMP are unlikely, especially in Kelantan. The growth targets should therefore be reviewed during the mid-term review of the FMP.

iii. Although the report generally supports the strategy of opening up the region by improving its infrastructure and exploiting its natural resources, it argues that the spatial pattern of urban and industrial development planned for the Northeast is too dispersed to support rapid growth. The report advocates a more selective, concentrated and nucleated urban-industrial development pattern focussed on stimulating growth in the main existing urban centers to complement ongoing land development programs. Such a strategy could be considerably less expensive and more effective in promoting non-agricultural employment.

iv. A major theme of the report is that inadequate coordination among the programs and projects being implemented in the region is reducing the impact of the Government's development efforts. It might be possible to achieve the same regional objectives with a smaller public investment program if program and project objectives were better reconciled (at both Federal and State levels), there were more coordination in the planning, budgeting and implementation of programs as well as projects, and if greater attention were paid to the financial and economic aspects of the programs to ensure they contribute to both the development and the distributions of the Government. The report analyzes four specific programs which should be reviewed in the framework of an explicitly articulated regional development strategy:

- (a) investments in all modes of transportation;
- (b) the development of industrial estates in the region's hinterland;
- (c) the development of new towns and upgrading of existing rural settlements; and
- (d) the multi-billion dollar program to develop energy and gas-based industrial projects and associated urban settlements on the coast of southern Trengganu.

v. Because Kota Bharu and Kuala Trengganu dominate the region's urban hierarchy and may have to accommodate a significant portion of the region's population growth during the 1980s, the plans and institutional frameworks for guiding their growth are examined in the report. The analysis indicates that the new plans being prepared for the cities are unlikely to be implemented effectively unless institutional arrangements are devised to review, coordinate and monitor the programs of the major public agencies. In addition the revenue base of local governments has to be strengthened in line with the new responsibilities of their expanded jurisdictions. The review of the cities' development needs in the report suggests that the public housing programs should be redirected to serve low income families better and that public transportation services need to be improved. Regional river basin management measures, including modifications to upstream development practices and possibly major dams, will be necessary to mitigate Kota Bharu's flooding problems and ensure the adequacy of its future water supply.

vi. Multi-state regional analysis of the type presented in the report is useful because migration, wage and labor force trends, transportation patterns and industrial location decisions all occur largely without regard to state boundaries, and development projects in one state often have implications for other states. The Government should therefore routinely program and review public investments from a multi-sectoral regional perspective, as well as on a project-by-project basis.

MALAYSIA

REGIONAL DEVELOPMENT AND URBANIZATION IN THE NORTHEAST

Summary

Origin and Purposes of Report

1. The Government of Malaysia asked the World Bank to help it review the development of the northeastern states of Kelantan and Trengganu because:

- (a) several major studies of various aspects of the region's development have been conducted recently and need to be reviewed and integrated from a regional perspective;
- (b) many major projects, especially infrastructure projects, are being implemented in the region, and their likely impacts need to be understood better;
- (c) the feasibility of the 12% annual growth for the region projected in the Fourth Malaysia Plan, compared to 8% for the peninsula as a whole, needs to be examined.

The terms of reference for the study were to review the region's growth prospects, identify inconsistencies and deficiencies in the existing studies and strategies, and indicate priority problems meriting further consideration, but not to develop a regional plan or prescribe solutions to all the problems identified.

2. The Northeast has been of particular concern to both the government and the Bank because of the high incidence of poverty in the region. This report takes the government's equity and distributional goals as the starting point for analysis. The analysis and recommendations presented in the report are intended to help the government review the strategies and targets established to achieve its broad regional goals and to improve the effectiveness and efficiency of specific regional programs in a period of increasing constraints on public resources.

A. The Region and the Approach to Regional Development

The Regional Problem and Its Sources

3. The two northeastern states of Kelantan and Trengganu share more in common with each other, especially in terms of resources and economic structure, than with the rest of the peninsula. For this reason, despite their separate political identities, the two states are treated as a unified region in this report.

4. There are also a number of development issues which are better analyzed from a multi-state regional perspective (paras. 0.03 and 0.04). This is especially true of migration and labor patterns which inevitably involve movements across state lines, investments in transport and industrial infrastructure which compete for traffic and industries on a regional or even a peninsular basis, and projects which have spill-over effects on neighboring states.

5. A major part of this report is devoted to clarifying the structure of the regional "problem" and the components of the development strategy addressing the needs of the Northeast. Neither has been articulated explicitly elsewhere and the appropriateness of the various programs cannot be discussed coherently without them.

6. The region's economic development lags behind the rest of the peninsula, and inter-regional income disparities and the relatively greater poverty in the Northeast are issues of concern both at the national and regional levels. The following patterns emerge when different welfare indices for the Northeast are compared to peninsular averages (paras. 1.03-1.26):

- (a) regional per capita income in the Northeast using 1980 regional GDP figures /1 was 56% of the peninsula average;
- (b) regional household income variations using 1977 Agricultural Census data, whilst not as high as GDP p.c. variations, still show that household income in the Northeast was only 63% of the peninsula average;
- (c) if, however, income is adjusted for regional cost of living differences (which may be as high as 25-30% between the two coasts), then the regional disparities are smaller than suggested by either GDP per capita or household income figures,
- (d) on the other hand, broader social indicators of welfare in the region, such as the availability of various public services, show a more pronounced gap than GDP p.c. figures (e.g. electricity and water consumption rates are 42% and 25% of the peninsula average, respectively, and infant mortality is 38 per thousand compared to 28 per thousand for the peninsula); and
- (e) within the region there is also a higher incidence of poverty in both rural and urban areas than in other regions.

/1 In lieu of regional output (GRP), the FMP term "regional GDP" is used throughout the report.

7. These measures of welfare all indicate that the Northeast is indeed one of the peninsula's more impoverished regions. However, each measure suggests a different degree of relative poverty. Thus, whether on balance the severity of the region's poverty in terms of interregional per capita welfare differences is more or less than that suggested by GDP p.c. differences is unclear.

Sources of Regional Income Differences

8. It is useful in the design of a regional development program to differentiate between income disparities by group and by area. Descriptive models used in this study suggest that statistically, the region's ethnic composition (reflecting differential access to education and higher income occupations) and other demographic characteristics (e.g. low average level of education, largely unskilled labor force, rural population, large average household size) account for a substantial part of the region's lower per capita income. Income differences attributable to such characteristics can best be reduced through national policies (albeit with a conscious regional emphasis) which focus on population groups, e.g., to improve human capital through education and skill development. On the other hand, as much as half of the income disparity between the Northeast and the rest of the peninsula can be attributed to truly regional or location-specific differences (paras. 1.28-1.30), such as poor transport links to larger domestic and foreign markets, a climate and topography which lowers labor productivity, and a high proportion of low income sectors in the sectoral composition of regional production. The latter set of differences can be addressed more readily by area-specific regional development programs.

9. Before discussing the objectives and approach to the Northeast's development, it is useful to review the extent to which the integration of national labor markets and interregional migration can reduce inter-regional income differentials.

Labor Markets

10. The labor market in the Northeast is complex, with more slackness in the female than the male labor submarkets, spot shortages (particularly of skilled labor and estate workers), high turnover rates, and low average wage rates (paras. 5.12-5.23). Average male and female nominal wages on the East Coast are 20-30% lower than on the West Coast. However, this difference is primarily due to the composition of the labor force in terms of ethnicity (which is highly correlated with education and work experience which affect access to occupations) and skills. When employee and job characteristics are controlled for, there is essentially no regional variation in male wages, i.e. an unskilled male, Malay worker earns more or less the same on both coasts, particularly if regional cost of living differences are taken into account. This helps explain why construction and

productive activities must pay a premium for skilled male labor which is scarce on the East Coast and which must often be imported into the region./1

11. A contributing factor to the relatively high wage levels for unskilled male workers in the Northeast is the size of the Government's development program which is a major source of labor demand. This cannot be entirely avoided in the early phases of development because of the lumpiness of infrastructure investments. However, in the long run improvements in the Northeast's per capita income level cannot come from a policy that simply raises unskilled male wage levels through growth in labor demand, for if the Northeast remains a region of predominantly unskilled labor, then per capita income will not rise compared to the rest of the country. Thus, policies need to aim at improving the skills of the region's labor force to improve their productivity and hence their earnings. A longer term strategy is needed which both upgrades local skill levels and shifts economic activities towards greater skill intensity./2

12. On the other hand, there does appear to be a regional aspect to the lower female wage rates on the East Coast (paras. 2.48-2.52). That is, a female Malay worker with similar skills earns less on the East Coast than on the West Coast even after adjusting for regional cost of living differences. The reasons for this are unclear (perhaps greater family dependence, lower mobility and narrower choice of suitable occupations for cultural reasons), but it does suggest the potential availability of some lower cost labor for equivalent work.

Interregional Migration

13. The Kelantan and Trengganu state governments are concerned about loss of population through migration, but net out-migration rates have in fact been relatively moderate, given the region's poverty (paras. 2.20-2.38). The report examines several of the main factors which influence migration in peninsular Malaysia. The higher cost of living outside the Northeast (paras. 2.53-2.60) and the fact that northeastern wage rates are not below peninsular averages when employee and job characteristics are considered (paras. 2.39-2.40) reduce the economic motivation to migrate from the Northeast relative to what could be expected in light of the nominal income gap between the Northeast and the West Coast. In addition, public development expenditures appear to be associated with a significant short-term rise in employment and annual per capita household income. Thus, the high public expenditures in the Northeast may have also reduced net

/1 The public sector also currently absorbs a high proportion of the skilled and professional workers in the region.

/2 When this happens attention will also have to be given to ensuring that northeastern wage rates are competitive with those on the West Coast, particularly at higher skill levels, without the Government's preemptive demand for labor.

out-migration from the region.^{/1} Finally, out-migration may have been inhibited somewhat by the northeastern states' distance from and relatively poor transport accessibility to the employment opportunities in the Selangor Region.

14. The review of interregional migration and labor markets suggests, however, that on balance national labor markets are already relatively responsive and there are few major obstacles to labor mobility. Thus, the continued presence of inter regional income disparities suggests that population movements are unlikely in themselves to eliminate the interregional income differences part of which reflect basic structural differences among the regional economies (see also para. 25). This requires public interventions with clear operational objectives.

The Opportunity for Regional Development

15. The region appears to have potentially abundant, under-exploited natural and human resources. No serious financial constraints to exploiting these opportunities were envisaged when the Third and Fourth Five-year Plans were formulated. The Government therefore earmarked a significant share of public expenditures ^{/2} for the region's development with the intention of transforming its economic structure during the 1980s.

16. The Government's objective is to use regional development as a means of achieving efficiency goals such as increasing national output through the exploitation of under-utilized resources and equity goals such as the twin NEP aims of eliminating poverty and the association of race with economic role. Enhancing the economic base of the Northeast - a poor, primarily Malay region which is resource-rich - satisfies both objectives well. Narrowing the national and regional per capita income differences is the Government's principal measure of performance. The FMP target is to raise the Northeast's per capita GDP from 54 of the peninsula's average in 1980 to 76% in 1990. Achieving this target will require a development strategy and set of investment programs which will ensure growth rates in the region above the national average for the decade.

17. The Regional Development Strategy. There is no regional plan nor any formally stated development strategy for the Northeast, in part because it is not a political or administrative unit. However, the policies and programs being pursued in both Kelantan and Trengganu do constitute a relatively coherent, consistent approach to regional development based on an implicit regional strategy. This strategy favors reducing the region's physical isolation from other regions and concurrently developing the rural areas of the region through agricultural expansion, rural industrialization and dispersed urbanization.

^{/1} In some cases, such as Selangor and Pahang, it may have also contributed to net in-migration.

^{/2} 19% of FMP allocations for 12% of the peninsular population.

18. The Regional Development Programs. The public sector is at present the principal agent of regional development. Public expenditures (both Federal and State) are being used to expand productive capacity directly in key subsectors and to stimulate expansion of private sector investments in the region (through provision of infrastructure and incentives). Most of the public projects in the region can be classified under four basic programmatic categories:

- (a) objective: to reduce the region's geographic isolation and increase its access to larger domestic (West Coast) and foreign markets; programs: major improvements to all modes of the transportation network;
- (b) objective: to increase both the output and productivity of activities in the primary sectors which are the mainstay of the region's primarily rural economy; programs: accelerated exploitation of mineral, forestry, and fishery resources, and most importantly, strengthening the agricultural base by (i) opening up and developing large areas of the forested interior (mainly for export-oriented cash crops), and (ii) improving existing (mainly subsistence) coastal agriculture in situ;
- (c) objective: to shift the sectoral composition of production towards industry; programs: (i) increasing local processing of abundant local raw materials (mainly timber, palm oil and rubber), primarily in rural areas, (ii) attracting footloose industries to "surplus" low wage labor by improving regional and local utility networks and providing industrial estates and fiscal incentives, and (iii) developing a heavy industry complex based on oil and gas in southern Trengganu; and
- (d) objective: to channel the spatial distribution of population and economic activity by dispersing urban growth; programs: developing new towns in the hinterland, upgrading existing small rural settlements as "service" centers, and creating an urban-industrial complex in southern Trengganu.

B. Issues in the Development of the Northeast

19. The programs currently being implemented could have some impacts different from those originally intended. Issues affecting each of the four principal programs are reviewed in the following sections.

Transport Network Improvements

20. The proposals under study or implementation include an East-West highway linking Kota Bharu and Pinang; a North-South highway linking Kota Bharu with Kuala Lumpur (passing through interior Kelantan parallel to the

existing narrow-gauge rail line which is also to be upgraded); upgrading of the coastal highway; repairing the Kuantan deepsea port, construction of a supply base port 40 miles north of Kuantan near Chukai (to be expanded to also handle iron ore), a possible port near Kota Bharu to handle coastal and eventually seagoing freighters; a new airport near Chukai, and upgrading of the Kuala Trengganu and Kota Bharu airports (the latter to handle 747s).

21. Investment in Overcapacity. The transport improvements are intended to lead rather than follow demand, and consequently the facilities are designed with excess capacity in terms of current economic demand. Their likely cumulative impact during this decade is more difficult to predict than usual since many improvements are being implemented concurrently. However, a review of the projects underway or planned suggests that some are premature even in an infrastructure-led development strategy (paras. 3.39-3.40). The transport program's potential for realizing inter- and intra-regional industrial location and trade objectives is also weakened by the lack of an explicit statement about the separate purposes of the individual improvements and the way in which they are supposed to fit together, in the context of an overall area-specific development plan (particularly the role that is expected to be played by each of the three eastern states and their capitals). As a result, redundant capacities are undoubtedly being created since the feasibility of individual projects has been assessed independently without incorporating the possible impact of similar concurrent investments. In addition, the opportunity for creating at least one strong, dynamic urban center on the East Coast with long-term economies of scale and agglomeration resulting from the concentration of complementary central transport modes in a single center is being lost.

22. Effect on Productive Sectors. As noted earlier, the small size of local markets and the region's relative isolation from larger domestic and foreign markets has limited its attractiveness to medium and large industries. Some of the proposed transport improvements are necessary and will clearly reduce the region's isolation. This will induce new economic activities in the region by both enabling expansion of local enterprises and attracting national enterprises to locate in the region. Nonetheless, the elimination of transport barriers to the movement of goods could lead to the loss of some existing types of local production capacity to larger, more efficient producers and distributors outside the region. The net impact of the transport improvements on the regional economy is, however, uncertain (see para. 24 and paras. 3.43-3.48).

/1 In particular, it is difficult to assess the contribution of transport improvements to increasing the potential for local processing of local raw materials. While additional processing might be forthcoming as a result of the greater access to larger markets, transport cost reductions will facilitate movement out of the region of low-value bulk raw materials such as timber more than their finished products. In this sense high transportation costs function as natural tariff barriers for import-substituting regional production.

23. Impact of Transport Improvements on the Regional Urban Hierarchy.^{/1} The designation of Kuantan as the east coast's principal regional center in the TMP and FMP was appropriate when it was predicated on Kuantan's pivotal location at the intersection of various transport arteries and the only major surface link to the Northeast. However, Kuantan's locational advantage as a regional center or gateway to the Northeast could be undermined by the transport programs as the rail link through the Kelantan hinterland is improved and, more importantly, as Kota Bharu is linked by road with Pinang and eventually Kuala Lumpur. In fact, with the link to Pinang, the plain around Kota Bharu (the principal concentration of population in the Northeast) will be approximately equidistant from the Pinang and Kuantan Ports (and their urban centers). This could give the more established Pinang Port an edge in serving Kota Bharu up to the limits of its throughput capacity. The completion of Kuantan Port will, however, enable Kuantan to fulfill its potential as a dynamic growth center, particularly for capital-intensive and port-oriented export industries. If the intra-regional transport network in Kelantan's northern plain were improved to facilitate mobility of goods and increase the size of the effective labor catchment areas, Kota Bharu could also have growth potential for larger firms based on low-wage, labor-intensive industries, in addition to small enterprises. Kuala Trengganu, which is more centrally located in the region (between the two concentrations of Kota Bharu and Kuantan), is the least likely to benefit from the transport network improvements.

24. Impact of Transport Network Improvements on Interregional Migration Patterns. Kelantan had the fourth highest net out-migration rate among peninsular states during 1957-80. Trengganu gained a slight amount of population due to migration during 1957-70, but experienced a small loss during the 1970s. Pahang and the Selangor Region have been by far the most important destinations for northeastern migrants. There is also reportedly substantial short-term migration to Singapore, but the exact volume is not known.

25. The transport improvements under way, especially the highway from Kota Bharu to Kuala Lumpur, will effectively increase the Northeast's proximity to Kuala Lumpur (paras. 3.41-3.42). This is likely to result in an increase of the northeastern net migration stream (particularly from Kelantan) towards the West Coast and an increase in the rate of out-migration (similar to that of states adjacent to Selangor) despite the fact that the transport improvements will concurrently contribute to increasing northeastern income levels. The increase in net out-migration can be beneficial both nationally and regionally as some regions are better able to absorb labor productively than others. Thus out-migration can improve the welfare of out-migrants by providing access to new opportunities. It can also improve the welfare of those who remain behind by reducing the downward pressure on real wages, particularly if aggregate regional income does not drop as a result of the departing labor force. Regional income can also grow if migrants remit part of their earnings to the region. Nonetheless, while out-migration can contribute to enhancing regional per capita income, it cannot be relied on exclusively as a means for closing interregional per capita income differentials.

^{/1} Paras. 3.49-3.50 and Chapter 7.

Expanding Primary Sector Output and Opening the Hinterland

26. The primary sector is the mainstay of the northeastern economy, in terms of both output and employment. It is also the principal source of exports to other regions and overseas. The current public expenditure programs are designed to accelerate exploitation of mining, forestry and fishery resources and to strengthen the agricultural sector through expansion of land area and improvements in cropping and cultivation practices (i.e., intensification to increase productivity in the sector).

27. Expansion of the Non-agricultural Primary Sector. Exploration in the mining sector (excluding oil and gas) is at too early a stage for it to contribute much to growth in output, income and employment in this decade. However, the large regional infrastructure and construction programs will support an expansion of the local quarrying subsector.

28. The current very high rate of exploitation in the forestry sector (due to land clearing for agriculture and infrastructure projects) is unsustainable in the long run. Both physical output and employment in the sector could drop by as much as 50% by the mid-1980s as clearing operations end and exploitation rates drop to long-term sustainable levels. Hence, accelerated exploitation is not advisable.

29. Coastal fishing rates have already peaked and output in the fishing sector can be expanded only through the extension of the fleet's fishing range. But productivity improvements will probably result in a net decline in employment in the sector even with expansion of aquaculture.

30. Expansion of Agriculture and the Opening of the Hinterland. The only significant expansion in primary sector output is likely to come from an increase in the output of cash crops as a result of land development programs in the hinterland (paras. 3.12-3.34) and to a lesser extent in subsistence crops as a result of in situ improvement programs. These programs are very important since the increase in agricultural output will contribute to aggregate regional income growth and absorb a third to a half of the growth in the region's population and workforce in the 1980s.

31. However, contrary to widely shared perceptions, the rate of land development in the Northeast during the 1980s will only be comparable to the rate during the 1970s (para. 3.26),^{/1} and much of the agricultural employment creation will not occur until the late 1980s and 1990s. Thus, although the land development schemes will play a critical role in the region's development during the 1980s, even if their ambitious targets are met and the dispersed settlement schemes are occupied (both new towns and

^{/1} Data limitations do not permit a more definitive statement.

upgraded rural centers), existing cities outside the regional development areas will have to absorb at least as much population as the areas under the jurisdiction of the regional development authorities (Ketengah and Kesedar), and probably more.

32. Expanding agricultural output in the region is an important and appropriate regional objective. It is useful to note though that while existing agricultural expansion programs will increase the sector's output in the region compared to the past, they will not significantly increase the region's share in the national output of the principal cash crops (Annex 4-4) during the 1980s nor close the natural productivity differential (due primarily to climate and topography) between the Northeast and other regions in the longer run. However, closing the productivity differential is essential to the national objective of reducing regional per capita income differentials. Without relative productivity gains in the principal sector in the Northeast's economy, i.e. agriculture, improvements in regional per capita income compared to other regions (rather than compared to the past) can only come from a shift in the composition of the production structure towards secondary (and tertiary) sectors with higher productivity, particularly those in which the region could have a longer-term comparative advantage.

33. Thus, although the land development schemes are significant to the Northeast's longer-term development, their contribution to output and income, and to a lesser extent to employment, expansion will be limited in the 1980s. This conclusion, combined with the observation that FMP agricultural allocations per worker (in contrast to allocations per capita) in the region are appropriately below the national average,^{/1} casts doubt on a common assumption in planning for the Northeast. It is usually taken for granted that a 10-year "breathing period" exists during which the rural land development schemes will be the principal source of labor absorption and income improvement in the Northeast. As noted earlier, these programs will contribute to employment and income improvements in absolute terms, but at a slower rate than expected and not sufficiently to improve the Northeast's relative income position. This conclusion points to the need for also generating substantial non-agricultural job opportunities, primarily in urban areas.

34. Rural Industrialization. The current approach to generating non-agricultural jobs has been to encourage the location of industries which process raw materials in rural areas. The detailed analysis in Chapter 4 of the report concludes that there is some (though not a substantial) potential for expansion of local primary processing of perishable commodities. However, transport improvements will put a premium on the efficiency of regional producers (paras. 22 and 38) involved in secondary and tertiary processing for larger markets. Furthermore, in rural areas the availability and density of population is often insufficient to serve as a reliable labor supply for

^{/1} Lower per worker allocations will be appropriate until the opportunities for lower cost development of more fertile areas elsewhere on the peninsula have been exhausted.

medium-scale industries (Chapter 5) or as a market to provide an adequate range of part-time jobs to improve household income by gainfully employing secondary household workers.

35. Thus, while the contribution of "rural industrialization" to the generation of off-farm, non-agricultural jobs is likely to be positive, it will be very limited due to low multiplier effects as a result of the low densities of population centers and their inability to support a diversified economic base. As a strategy, rural industrialization is not likely to contribute significantly to a sustained long-term growth of regional income and labor absorption capacity. Instead, these objectives require an increase in the scale and density of principal urban centers as the primary locations for a substantial expansion in non-agricultural job opportunities.

Shift in Regional Production Structure Towards Industry

36. The industrial strategy for the region emphasizes the increased processing of local natural resources and utilization of the region's "abundant cheap labor."

37. Utilization of Local Raw Materials. The prospects for processing local raw materials vary by industry, but dramatic expansion of secondary and tertiary processing activities cannot be expected (paras. 4.04-4.18; 4.37-4.46). In the case of primary processing of local raw materials, the potential for "relocation" of existing capacity from elsewhere on the peninsula to the region will be limited due to the constraints on the long-term sustained yield of principal currently exploited natural resources (such as timber and fishing). Installation of new primary processing capacity is also likely to be limited during the '80s to the processing of the perishable output of the new agricultural schemes in the hinterland (paras. 4.19-4.36).

38. Expansion of the secondary and tertiary processing of raw materials (particularly of cash crops which are ubiquitously available on the peninsula, but also of timber) will put a premium on the ability of regional producers' to increase efficiency (i.e. lower production costs) compared to other producers supplying national (and/or foreign) markets in order to facilitate penetration of larger markets and to offset higher costs of distribution (some of which will remain even after the improvements in the transport system are completed). Northeastern producers' will also have to increase their efficiency if they are to compete effectively even in regional markets after transport improvements lower the distribution costs for existing larger and more efficient national producers located on the West Coast.

39. Industries Based on Oil and Natural Gas. The greatest potential for developing industries based on the processing of local raw materials is in oil and gas (paras. 4.42-4.69). A multi-billion dollar development program has already been initiated on southern Trengganu's coast, even though several important questions concerning national energy (gas) pricing

and locational issues and trade-offs remain unresolved./1 It has yet to be determined how many productive projects are economically and financially feasible in terms of markets, scale of production, location and timing and phasing of production to justify the large infrastructure program already underway. The economic and financial feasibility of projects and therefore the number and types of projects that could be included in the program is amongst other things a function of the price of gas./2 The scale and phasing of basically new infrastructure will in turn depend on the scale and timing of the feasible industrial investment program. Indeed the issue of gas pricing is so important, not only to the Northeast, but to the course of Malaysia's future development that there is a need to rapidly finalize a gas pricing structure (this may require a follow-up study to the Gas Masterplan study already underway (para 4.62)).

40. The justification for massive development of new infrastructure in southern Trengganu rather than incremental expansions of the existing well-developed network on the West Coast will depend on the cost-effectiveness of the East Coast as a location for these activities. This is particularly important since, apparently, the cost of transporting gas to the West Coast where the major consumption centers are located is not significant enough to affect industrial location decisions (except in the case of steel and aluminum plants). It is therefore important to assess the advantages of an East Coast location for gas-fueled power generation and gas-based import-substituting activities oriented primarily to West Coast consumers. Trengganu is nonetheless likely to be a suitable location for gas-based direct reduction of steel and export-oriented industries if they are found to be profitable. Thus, the pricing and locational issues mentioned above must be addressed in order to determine the appropriate scope and likely total impact and local multiplier effects /3 of this large capital-intensive investment program on Trengganu's development potential and per capita income.

/1 There are also planning, infrastructure, institutional and environmental issues affecting these industrial developments which are discussed in paras. 59-61.

/2 The price of gas can vary from the current opportunity cost of c.i.f. "fuel oil equivalent energy" price (as long as a Malaysia is a net importer of fuel oil) to the f.o.b. LNG price (when this threshold is crossed). The latter liquified natural gas export price may eventually be an appropriate price given that the domestic supplies of gas in Trengganu exceed potential uses available on the peninsula.

/3 The national investment program for the development of the peninsula's oil and gas is very large relative to Trengganu's economy and could be a major stimulant of economic growth in the region. However, much of the equipment and technical skills will be imported from outside the region and much of the earnings of the skilled labor will be directed to the consumption of goods and services not produced locally. This could result in large "leakages" from the region's circular flow of income and contribute to low multiplier effects on the local economy, in part because it could lead to pronounced dualism in the region's economy, with major structural bottlenecks and a very high rate of local inflation.

41. Potential for Taking Advantage of Cheap Local Labor. The peninsular female labor market does appear to be fragmented by region, i.e., wages for female Malay workers in the Northeast appear to be lower than on the West Coast. There is thus scope for locating employment activities for female labor in the region. Despite spot shortages in some districts and occupations, and seasonal migration of some categories of male workers, the national markets for male labor appear to be better integrated (paras. 10-11). Male labor in the Northeast thus does not appear to be cheaper than elsewhere in the peninsula; rather, the low average wages in the Northeast (and the associated higher levels) poverty relative to the nation reflect the limited skills of the labor force and the prevalence of low paying jobs in the occupational profile./1 Hence, policies designed to improve earnings will eventually have to shift from the current simple stimulation of demand for labor to focus on a coordinated, simultaneous improvement of skills and opportunities for those skills in the region (paras. 5.56-5.66) both in rural and urban areas.

42. A major problem in expanding the use of the region's labor force in industries is that insufficient labor is available in most local areas to attract large, labor-intensive firms (paras. 5.25-5.35). Until the scale and density of population centers is increased, expansion of labor-intensive industries must rely primarily on the stimulation of small enterprises./2 This would also benefit the development of indigeneous entrepreneurial capabilities.

43. Industrial Decentralization through Industrial Estates and Fiscal Incentives. From a peninsular perspective, the inter-regional dispersal of new industrial infrastructure facilities is an appropriate development measure, even though industrial estates on the West Coast still have unutilized capacity and potential for cost-effective expansion. However, dispersal of industrial estates within the Northeast which currently lacks any strong, dynamic, growth centers, is premature (except for local resource-processing estates) because it spreads capital too thinly within the region (paras. 3.53-3.66)./3 It has also not been cost-effective, since the location of industrial estates on the periphery of urban concentrations or in the hinterland has increased the cost of providing infrastructure and access to labor markets and has not been adequately coordinated with the development of the regional utility network, resulting in sunk costs with low occupancy rates. To attract footloose industries, both the provision of infrastructure and the development of industries within the Northeast should be more concentrated to develop a few industrial complexes of sufficient size to support specialized labor forces and services. The development of

/1 This latter is particularly important for the low earnings of the self-employed.

/2 Even in this case, scale and density of population centers is important. Larger centers can support a larger variety (as well as number) of small enterprises.

/3 In 1980 developed acreage was 1,000 acres in six sites, with occupation rates ranging from 17% in Kuala Ibai to 67% in Jakar. Proposed new acreage is 6,400 acres in 17 sites. The 3,000 acre site being developed at Telok Kalong in southern Trengganu is only 15 miles from Gebeng in Pahang with 1,700 acres.

estates for small enterprises in urban areas could contribute to a net growth in the sector if it were limited to new firms and/or those relocating voluntarily.

44. There is considerable doubt about the effectiveness of the current locational fiscal incentives in dispersing investments (paras. 3.69-3.75). As presently structured, there is little reason for an industrialist to favor a remote "Location Incentive Area" to a similarly designated area closer to principal, dynamic agglomerations on the West Coast. The current fiscal locational incentives are insufficient to offset the impact of other fiscal incentives which generally favor capital-intensive, export-oriented industries for which the West Coast is a preferred location. Hence, administrative measures are used to direct industries to the East Coast, even though there are no studies to facilitate selection of industries and subsectors for which an East Coast location could provide a locational advantage. The cost-effectiveness of this program should be reviewed carefully. In addition, the recent proposal to introduce locational incentives which offset operating expenses (rather than provide tax relief) should be treated cautiously to ensure that the incentives are temporary and limited to expenses attributable to locational disadvantages which can realistically be expected to be ameliorated with the current regional development programs.

45. In summary, the potential for attracting footloose industries is limited in the short-run due to shortcomings in the selection of locations for industrial estates and the type of fiscal incentives offered. In the interim more attention should be paid to the stimulation of small enterprises by improving the coordination of the numerous existing, but fragmented programs for assisting them, e.g., by developing a comprehensive package of support.^{/1} The potential for footloose industries will, however, also remain limited in the long-run if there is no shift in the scale and density of principal urban centers to provide a larger range of social and business related services.

Shift in the Spatial Distribution of the Region's Population

46. National policies intended to decentralize some development opportunities to the Northeast are clearly appropriate. But as noted earlier, rural industrialization is unlikely to provide enough non-agricultural jobs to absorb the projected growth of the regional labor force and the shift in the composition of regional output implicit in the FMP targets. If the objective is to develop a strong non-agricultural economic base, the development strategy should focus on creating strong urban subeconomies (Chapter 7). To accomplish this, the current program of spatially dispersing population and activities within the region should be reconsidered.

/1 On this point see Malaysia: Development Issues and Prospects of Small Enterprises (World Bank, 1982).

47. In 1980, approximately 35% of the Northeast's population lived in cities, compared to 22% in 1970. However, almost all of this apparent urban growth was due to the expansion of town boundaries to incorporate rural areas despite the fact that population densities within the original boundaries were already very low and the towns included large peri-urban areas. There is therefore no basis for urbanization policies to try to contain "excessive" urban growth by stemming rural-urban migration. It may even be desirable to encourage rural-urban migration and accommodate the resulting urban growth (particularly through densification of the towns rather than peri-urban development) even as the hinterland is populated to support the expansion of productive activities there. The analysis in the report suggests that the growth of the rural population outside the Ketengah and Kesedar regional development areas could stagnate and that as much as two-thirds of total population growth may have to be absorbed in towns outside the hinterland even assuming the regional development authorities' ambitious settlement targets are met. In light of the greater potential for urban areas to generate non-agricultural job opportunities, this shift in the spatial distribution of population should not be discouraged.

48. To facilitate this longer-term shift in the spatial distribution of population and activities, attention must also be paid to the development of a suitable urban hierarchy in the region. Although the provision of services and amenities (in addition to non-agricultural employment) in rural areas is desirable, rural "service centers" (whether new towns in the hinterland or upgraded rural settlements) do not have the potential in terms of scale and density to become "growth centers" to attract dynamic, growth-oriented activities by supporting higher-order specialized services, labor markets and a diversified economic base. Furthermore, in practice the current program to develop rural service centers lacks selectivity and is unnecessarily costly, as a result of high infrastructure costs primarily due to overly ambitious targets, adoption of service and design standards more appropriate for large, high-density settlements than smaller towns, and low settlement rates.

49. A more selective, concentrated, and nucleated urban-industrial development pattern focused on stimulating growth in the principal existing urban centers could be more effective in promoting non-agricultural employment generation and considerably less expensive since certain scale and density thresholds must be crossed before a diversified labor market and economic base can be supported efficiently. The presently planned rural and hinterland settlement hierarchy should therefore be reviewed in light of a revised role for the principal coastal towns. Such a review would be particularly important for the new towns in the Ketengah subregion which will face competition from the development of the gas-based industrial and associated urban complex in southern Trengganu even though there is also a need to review the rates at which settlements in Kesedar are expanded.

50. Although the three east coast state capitals are still relatively small compared to other peninsular metropolitan centers, they are by far the

region's largest cities and have locational advantages which could be exploited more systematically. However, none of the three cities appears to have a clear advantage as the leading long-term "regional center".^{/1} There is a need, therefore, to clarify these cities, potential roles in a regional development strategy. At present it appears that Kuantan will continue to be the east coast's most promising industrial center, particularly for services and capital-intensive, export-oriented industries if developments in the Kerteh-Kuantan multi-state linear corridor are planned and coordinated with clear objectives. The Kota Bharu subregion will continue to have the largest potential labor catchment (within a 30-mile radius) for labor-intensive industries; Kota Bharu's economic role as a market center for its rural hinterland and a center for developing non-agricultural activities to complement on-going rural development programs would be strengthened if the transport network in the subregion were improved. Kuala Trengganu is centrally located between these two major east coast subregions and could function as a secondary service center.

Urban Development at the Local Level: Kota Bharu, Kuala Trengganu and the Southern Trengganu Coastal Complex

51. This report is primarily concerned with regional development patterns and problems. However, because the two state capitals dominate the region's urban hierarchy and may have to accommodate a significant proportion of the region's population growth during the 1980s, the plans and institutional frameworks for guiding their growth were examined. Similarly, because the energy and industrial projects planned for southern Trengganu could generate substantial associated urban development, the infrastructure, new town and housing programs planned for that area were reviewed.

52. Kota Bharu and Kuala Trengganu. Spatial strategies recently recommended for the two state capitals have had to incorporate earlier commitments regarding the location of public projects which have necessitated relatively dispersed growth patterns (Chapter 8). These patterns are less efficient in terms of land use and the provision of infrastructure and services than the more compact traditional patterns. This is particularly true of Kuala Trengganu, already the least dense of the major east coast cities. The fact that public decisions made during the 1970s on a piecemeal, sectoral basis without an overall spatial framework for urban development have preempted strategy options during the 1980s highlights the importance of establishing an effective institutional framework to plan and guide multi-sector investments.

53. Legislation enacted during the 1970s created a stronger legal framework for urban planning and development control in Malaysia (Chapter 9).

^{/1} As noted earlier, the transport improvements will reduce Kuantan's locational advantage as a potential regional urban center and transport gateway to the Northeast.

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However, the "structure plan" study recently conducted in Kota Bharu and Malaysian urban planning practice in general tend to over-emphasize physical planning and development control compared to public sector capital investment programming and the coordination of public projects in the implementation of plans. The scope of future structure plan studies, e.g. in Kuala Trengganu, should be broadened to include a review of local institutional capabilities and responsibilities, analysis of fiscal resources and preparation of a realistic consolidated short-term public investment program. Institutional arrangements to review, coordinate and monitor all public development programs also need to be devised; this would necessitate clarifying the roles and relationships among the State Economic Planning Unit, Town and Country Planning Department, municipality and operating agencies in both cities.

54. Malaysia's local government system was reorganized during the 1970s to broaden the functions allowed to municipalities and empower them to undertake a wider range of development activities, although their revenue base was not expanded. The Kota Bharu and Kuala Trengganu Municipalities' jurisdictions were increased approximately ten-fold as part of the reorganization, but they have lacked the staff and financial resources to provide services in the expansion areas or to undertake major new development activities.

55. The roles which municipalities can realistically be expected to play in Malaysia's federal system need to be clarified. In Kota Bharu and Kuala Trengganu it would appear most appropriate for the municipalities to concentrate on providing recurrent services and extending them to peri-urban areas, assuming greater responsibility for the maintenance of urban infrastructure and undertaking minor capital works rather than initiating major development projects. Measures to strengthen municipal finances and staffing should include local initiatives (especially more systematic exploitation of property taxation and other local revenue sources) as well as more significant federal support (possibly including increased grants tied to local revenue generation and more frequent secondment of technical staff).

56. Although Kota Bharu and Kuala Trengganu are not currently experiencing severe infrastructure and service deficiencies because of their relatively moderate growth rates, the policies for two aspects of urban development should be reviewed, especially if the cities are to accommodate more growth during the 1980s. First, the limited amount of heavily subsidized "low cost" public housing provided in both cities has not been affordable by very low-income households. More modest standards should be adopted to reduce construction costs, and the option of providing serviced sites with expandable "starter houses" should be considered for the poorest third of the population who cannot afford a conventional low cost house. Kampong housing accounts for 60-75% of the existing housing stock. Kampong upgrading programs integrated with secondary infrastructure improvements could improve low income families' living conditions and would be less

expensive, less economically and socially disruptive and could benefit many more people than the alternative of comprehensive redevelopment which has been implemented on a limited scale in Kota Bharu and is being considered in Kuala Trengganu.

57. Second, public transport is very limited in both cities. Peddle trishaws which are relatively expensive on a per mile basis are the main form of public transport in the central areas, and buses and taxis generally provide long-haul rather than local services in both cities. Better public transport services consisting of local stage buses and smaller units such as minibuses and possibly taxis should be planned and encouraged. Trishaws would play a less dominant role in competitive transport systems and could be phased out gradually, but their immediate elimination would be undesirable because of the economic hardships for the predominantly owner-peddlers.

58. Most of the cities' development problems can be addressed on a local basis. However, the interrelated areas of flood protection and water supply in Kota Bharu are technically complicated, will require major investments and must be addressed on a sub-regional basis (paras. 8.13-8.25). Periodic flooding of the Kelantan River disrupts economic activities and causes substantial damage and, in some years, loss of life in the northern Kelantan plain. Bunding the river near Kota Bharu would reduce but not eliminate the problem. The river will also have to be used as a source of water when demand exceeds the supply from aquifers near Kota Bharu, but shortages could be experienced during low flow periods in some years. Logging and land development activities in the river's upstream catchment are increasing peak flows, reducing low flows and exacerbating the existing siltation problem. Modifications to these upstream development practices would be a cost-effective short-term approach to reducing the negative downstream environmental impacts on urban areas. There is a need though to reconsider two impounding dams recommended in a 1977 study which could eliminate virtually all the problems caused by fluctuations in the river's flow as well as prevent saline intrusion during the dry season, substantially reduce downstream flooding, provide water for irrigation and be used for hydro-electric power generation. Although the dams' construction costs and the number of people and extent of infrastructure requiring relocation have increased since 1977, the proposal and overall river basin management should be reevaluated as a priority development in Kelantan.

59. Southern Trengganu Urban-Industrial Coastal Complex. The dispersed linear development pattern planned for the complex will create considerable transport problems on Route 3, which will have to handle local traffic as well as serve as an interstate trunk route. The main inter-sections will need to be designed carefully, and the possibilities for bypasses should be examined. The Kerteh New Town will be particularly affected by Route 3, which will separate most of the residential areas from the commercial center. The densities projected for the town are inefficiently low for a planned new development. Two industrial estates are being

developed, the drainage and soil conditions at Telok Kalong where a steel mill is to be located will require detailed technical attention and result in high site preparation and foundation costs. The phasing and scale of all of the infrastructure projects planned for the complex should be reviewed and integrated in a comprehensive development program (Chapter 10). An environmental management plan should also be prepared for the Kerteh-Kuantan corridor as a whole in addition to environmental impact analyses for individual projects.

60. Given the complexity of the development, the interrelationships among projects and the substantial investments proposed, stronger institutional arrangements than the currently established committees are needed to coordinate planning and implementation. The creation of a development authority with comprehensive responsibility for the southern Trengganu coastal area should be considered, following the precedent of the Bintulu Development Authority. In addition to powers to plan and control development, coordinate infrastructure provision by other agencies and undertake its own projects, such an authority should have the power and technical staff to monitor and enforce environmental regulations in a fragile coastal zone.

61. In addition to these local planning and institutional issues, the coastal complex will compete in some ways with the new towns being developed in the Ketengah subregion as well as Kuantan to the south. The federal and state governments should therefore examine the interrelationships among these developments to identify measures to maximize complementarities and prevent public investment in duplicative, competitive facilities.

C. Aspects of the Region's Development in Need of Reconsideration

62. The development of the Northeast has not yet crossed a threshold where income growth can continue at a reasonably high rate without above-average public expenditures. On the basis of the analysis in the report, the region does have the potential for a respectable growth rate during 1980s more or less in line with that of the national economy. However, it is unlikely that the current investment program can support growth rates for a decade substantially above the peninsular average as required to reduce regional GDP per capita differentials. Thus, the GDP growth targets for the Northeast, particularly Kelantan, are unrealistically high given the region's economic potential. The existing targets could probably be achieved at substantial additional cost through expenditures on massive construction programs and economically marginal enterprises. However, such expenditures should probably be viewed basically as income transfer mechanisms (and not necessarily the most efficient ones for the purpose) rather than as economic investments since they do not create or expand viable long-term productive capacity. It may be better, therefore, to reduce the targets to be achieved within a given time horizon (without changing the basic long-term regional development objectives) rather than expanding current levels of public expenditure, particularly for uneconomic projects.

63. The analysis in the report also suggests that an infrastructure-led strategy is appropriate for the region and that the subprograms required to stimulate development in the region have generally been correctly identified. However, the same objectives could probably be achieved at lower cost with a more focused, streamlined and appropriately phased set of programs. At present, the objectives of the subprograms have not been adequately reconciled (at either the national or state levels) to facilitate selectivity within programs or inter-program coordination and synchronization. In particular, in the rush to accelerate development in the region, inadequate attention has been given to the financial and economic aspects of projects (and programs) and their interrelationships. Many of the current project proposals should, therefore, be reviewed in light of emerging financial constraints./1

64. The low cost-effectiveness of individual components within present programs has been compounded by the lack of better coordination and synchronization between programs. Even though the study did not investigate the roles of federal, state and local planning and budgeting institutions, the fact that similar problems recur in each of the sector-specific programs suggests the need for a better procedure to review, select and coordinate multisector, area-specific (both inter-state and intra-state) interventions at the federal, state and local levels. This will require:

- (a) the clarification and explicit articulation of the objectives of the overall development program as well as of the various components of the regional development strategy. This should facilitate adoption of realistic targets for a given planning horizon and assist in identification of a more selective program in addition to providing a basis for improving multi-level coordination of investments. It would be useful in clarifying objectives and targets to differentiate between those which are population-specific, area-specific and sector-specific;
- (b) a careful review, in light of the issues raised in Part B, of the investment programs to improve all modes of regional transportation, develop industrial estates, construct new towns and upgrade existing rural settlements, and develop a gas and oil-based urban-industrial complex in southern Trengganu;

/1 Even though the infrastructure-based development strategy of the type being pursued in the region is intended to lead demand, many of the programs have components which are over-scaled in terms of likely growth in demand within the next 5-10 years. A review of the programs could probably identify opportunities for saving money by lengthening out the timetable and thereby reducing the level of sunk costs with low returns that must be accepted for a given time period in an infrastructure-led strategy.

- (c) a reconsideration of the spatial strategy to stimulate urbanization, support a more articulated role for the principal coastal towns and increase their capacities to accommodate demographic and economic growth; and
- (d) a selective set of studies /1 to support the clarification of objectives and review of investment programs. These would include inter alia studies on (i) an appropriate structure for gas prices; (ii) the desired role of the urban economies in the regional economy; (iii) the industrial subsectors most likely to have a comparative advantage in the region (which can also be promoted efficiently); and (iv) appropriate procedures for instituting effective multi-level area-specific planning, programming and budgeting for regional investments.

65. As noted in the report, many of the programs currently underway can, with modifications, contribute to the development of the Northeast. However, given that many parts of the West Coast, particularly the Selangor region, have successfully made the transition to a primarily urban-industrial economy, it will be difficult for the Northeast, with its primarily rural-agricultural economy, to support a more rapid income growth rate than the national average during this decade (in order to substantially reduce existing per capita income disparities) even with revisions and improvements to current programs and strategies. The analysis in this report confirms the inherent difficulty of developing "lagging" regions. The process will take a long time and does put a premium on the quality of public programs designed to stimulate growth and alleviate poverty.

/1 Malaysia is rich in unprocessed data in addition to a multitude of specialized studies. These existing sources of information should be analyzed and gaps identified before preparing focused terms of reference for new studies.