The Governments of Malaysia & the State of Johor

Johor tenggara

7 tourism

Hunting Technical Services Ltd.
Binnie and Partners
Overseas Development Group
University of East Anglia
Shankland Cox Overseas

1971

THE GOVERNMENT OF MALAYSIA AND THE STATE OF JOHOR

JOHOR TENGAH AND TANJONG PENGGERANG REGIONAL MASTER PLAN

SUPPORTING VOLUME 7

TOURISM

AUGUST 1971

Hunting Technical Services Ltd.
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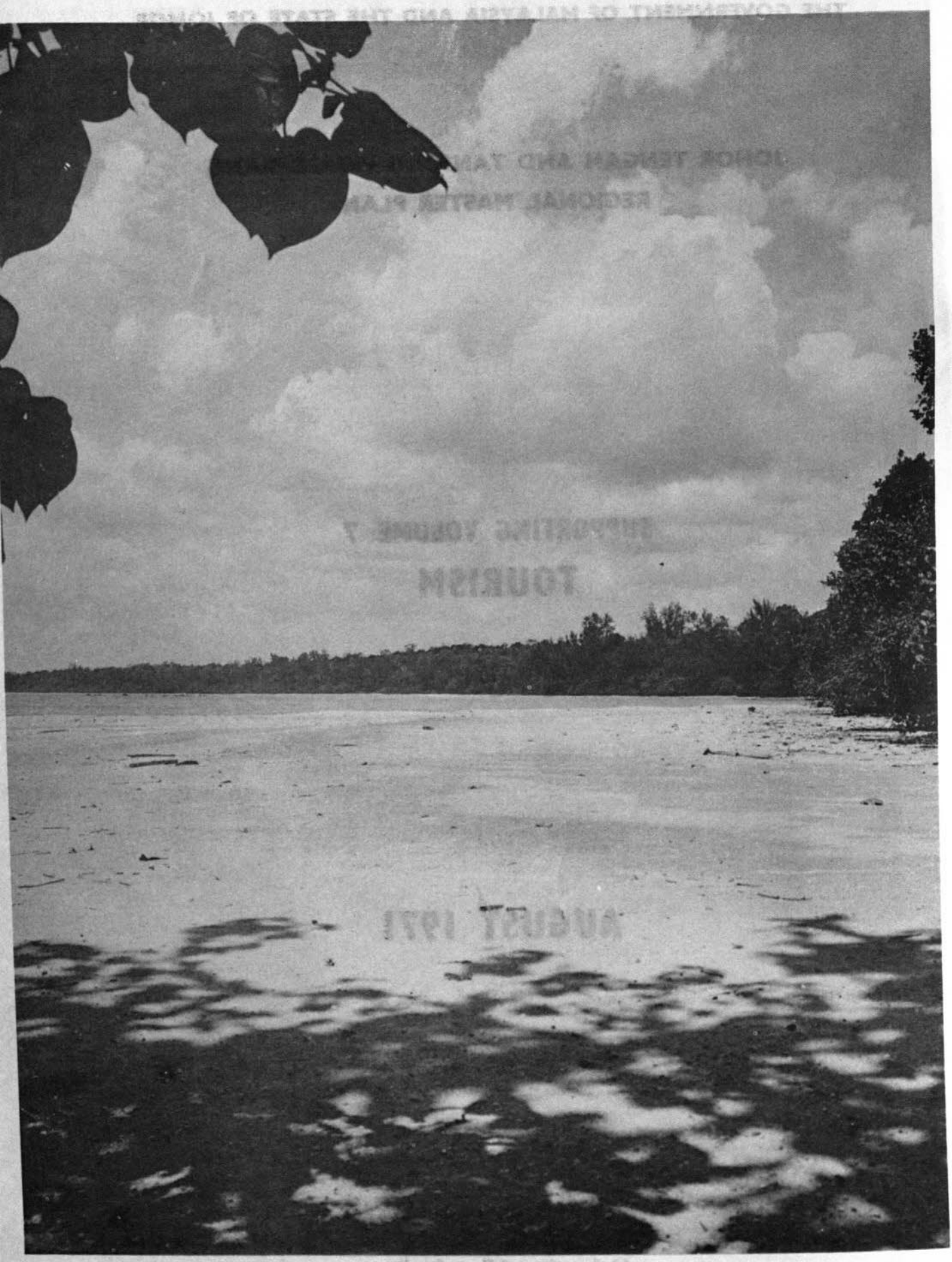

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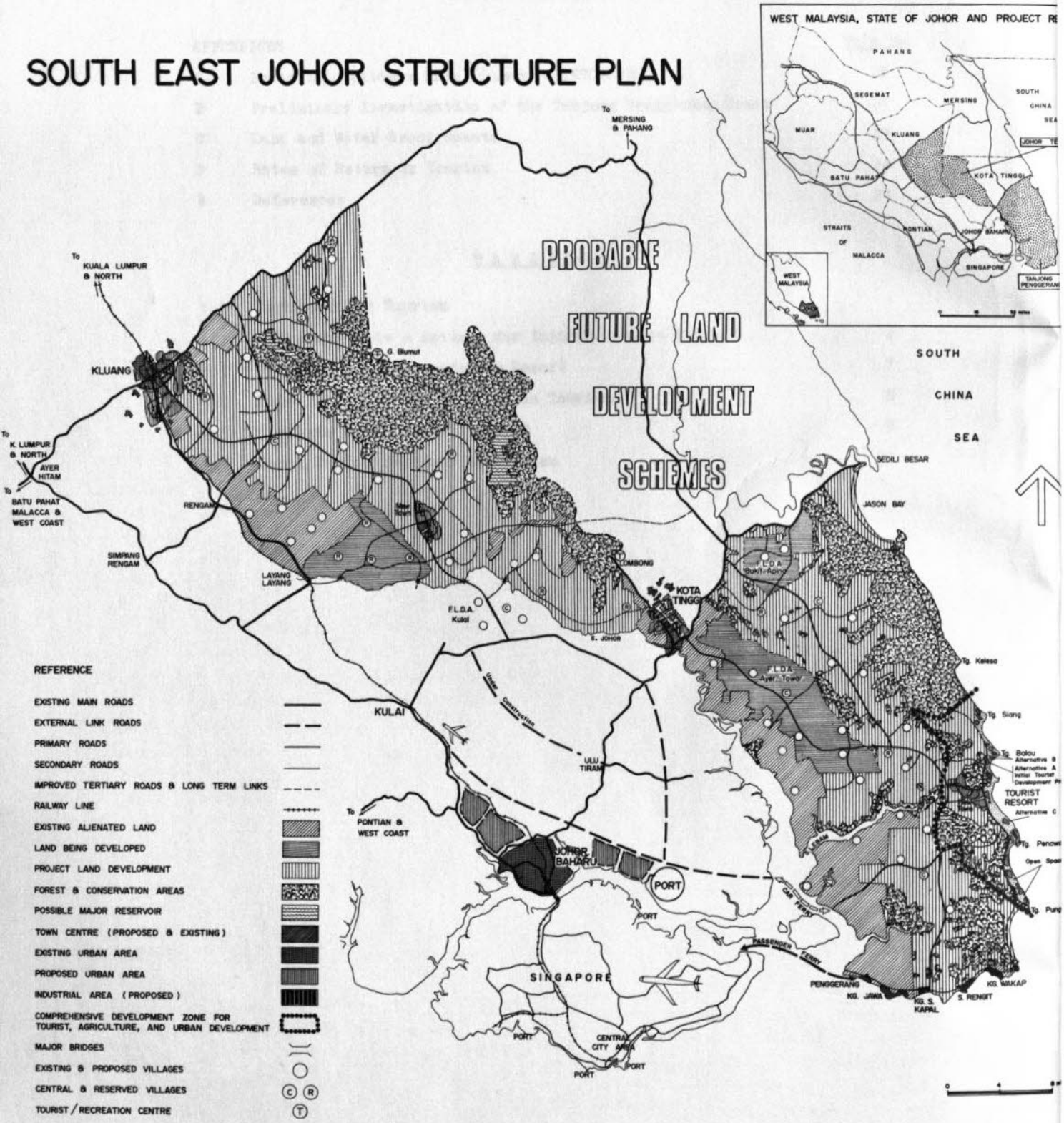


CHAPTER 1

SUMMARY

The growing realisation at state and national level of the potential importance of the tourist industry was reflected in the project terms of reference. These stipulated that an assessment should be made of the 'potential for development of a domestic and foreign tourist industry' and that 'recommendations will be required for the development of tourist amenities' related to 'areas suitable for recreational use purposes, as national parks and wild life reserves, and particularly to the areas of scenically attractive and largely unspoiled coastal terrain, which are a prominent feature of the Tanjong Penggerang region'.

A number of sites apparently suitable for tourist and recreation development have been identified in the project area: possible national forest parks in Johor Tengah, including hill stations with hotels and golf courses on the slopes of G. Blumut and near Lombong; a series of potential reservoirs suitable for water-based recreation; some forest areas suitable for wild life conservation and others for hunting and fishing; and above all, the beaches of Tanjong Penggerang.

Outside the Project Area, the State Government has sponsored or is considering a series of tourist development projects: in Johor Baharu a golf course-hotel-convention centre complex, the "Lido" and the "Tropical Paradise"; the Lombong Waterfalls chalets and restaurants: beach and water recreation schemes in Endau, Mersing and the islands; other projects for example, wild life and safari parks, in the forest and mountains of the west and north of the State; together with scenic routes for touring the State.

There are thus many suitable sites and imaginative ideas for tourist development in Johor. But assessments of the market, knowledge of the probable costs and returns of alternative developments, and a rational ordering of priorities are all required to realise this potential.

There is already a substantial and growing demand for recreational facilities in southern Johor, mainly from residents of Singapore, but also from Malaysian citizens and visitors from abroad. (Chapter 2). Even with a rapid resort development on the Penggerang coast, it would be many years before the rate of growth was limited by the size of the market. The coast will be made readily accessible by the new main roads required for agricultural development.

No other areas or projects being considered in the State or the Project Area (for example, inland mountain, waterside and forest resorts, or the islands off Mersing) have nearly as much physical capacity for accommodation and facilities or can so economically provide the range of services needed to support a large scale resort catering for Johor's main potential market - the car owning residents of Singapore and Johor Baharu (Chapter 3).

The conclusion of the comparative studies is that the Penggerang beaches are the most suitable place for large-scale tourist development not just in the Project regions but in the State of Johor. While a variety of small projects in different parts of the State might be viable, major investments in tourism should be concentrated in Tanjong Penggerang for the next 10 or 20 years.

Preliminary studies suggest that the central Tanjong Penggerang beaches have room for some 90,000 people; that development on adjoining land could provide 40-50,000 tourist beds, at least three 18-hole golf courses, and a whole range of associated facilities. There is also suitable land in the area for urban development to accommodate the population the resort would support. An outline physical development strategy for the area has been prepared.

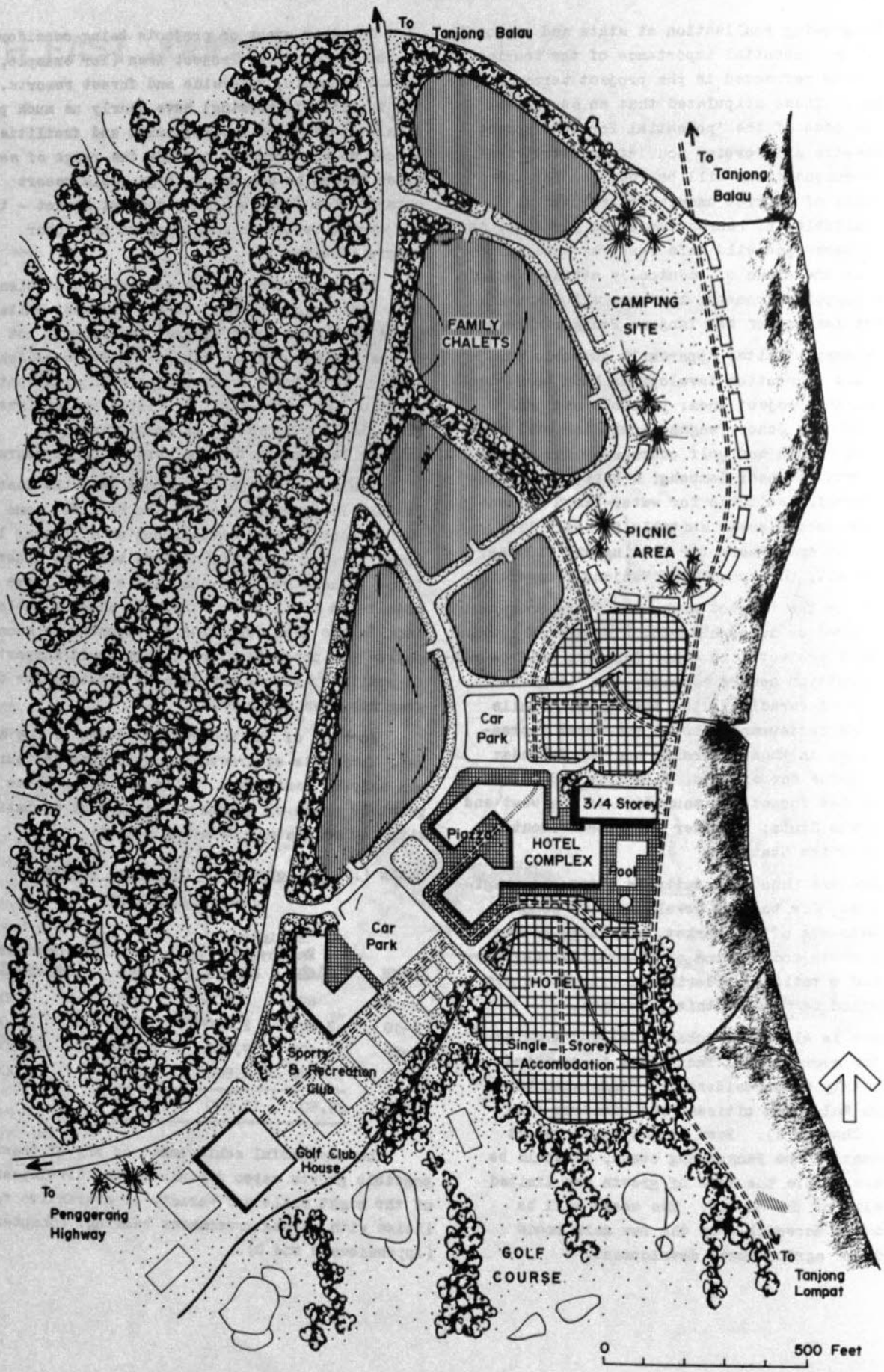
In view of the undeveloped state of the market, forecasts of growth of employment in tourism can only be tentative. Table 1.1 shows three possible rates of growth of employment compatible with the estimated potential demand:-

TABLE 1.1 Employment in Tourism: Tanjong Penggerang Coast

Years	Estimated Employment High	Medium	Low	Cumulative Medium Total
0- 5	600	600	600	600
6-10	2,800	2,000	1,200	2,600
11-20	10,400	7,400	4,200	10,000
21-30	14,000	9,800	5,600	20,000
TOTAL	27,800	19,800	11,600	

The successful achievement of any of these possible growth rates depends on the development of the right scale and variety of attractive facilities with strong government backing. (Chapter 5) (Appendices B and C).

SKETCH PLAN — INITIAL TOURIST PROJECT



It is recommended that an initial project for 1,000 beds and a golf course at a cost of about $15 mn should be started between Tg. Balau and Tg. Penawar as soon as road access is available. Table 1.2 indicates the outline financial and employment returns for this project. This should be a joint venture between the Federal and State governments and an experienced private hotel company. A detailed study in conjunction with potential developers, is now required to finalise the site, and prepare an investment and development plan for the initial project.

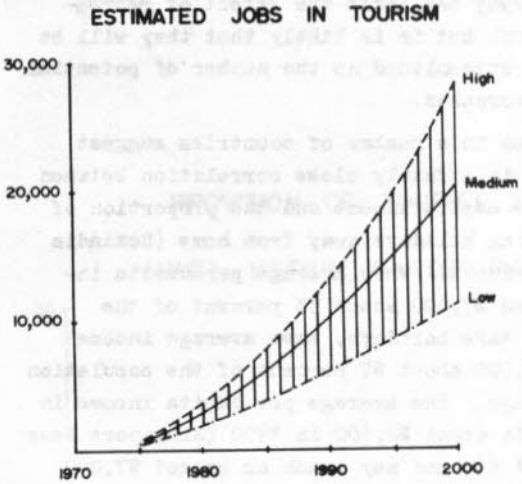
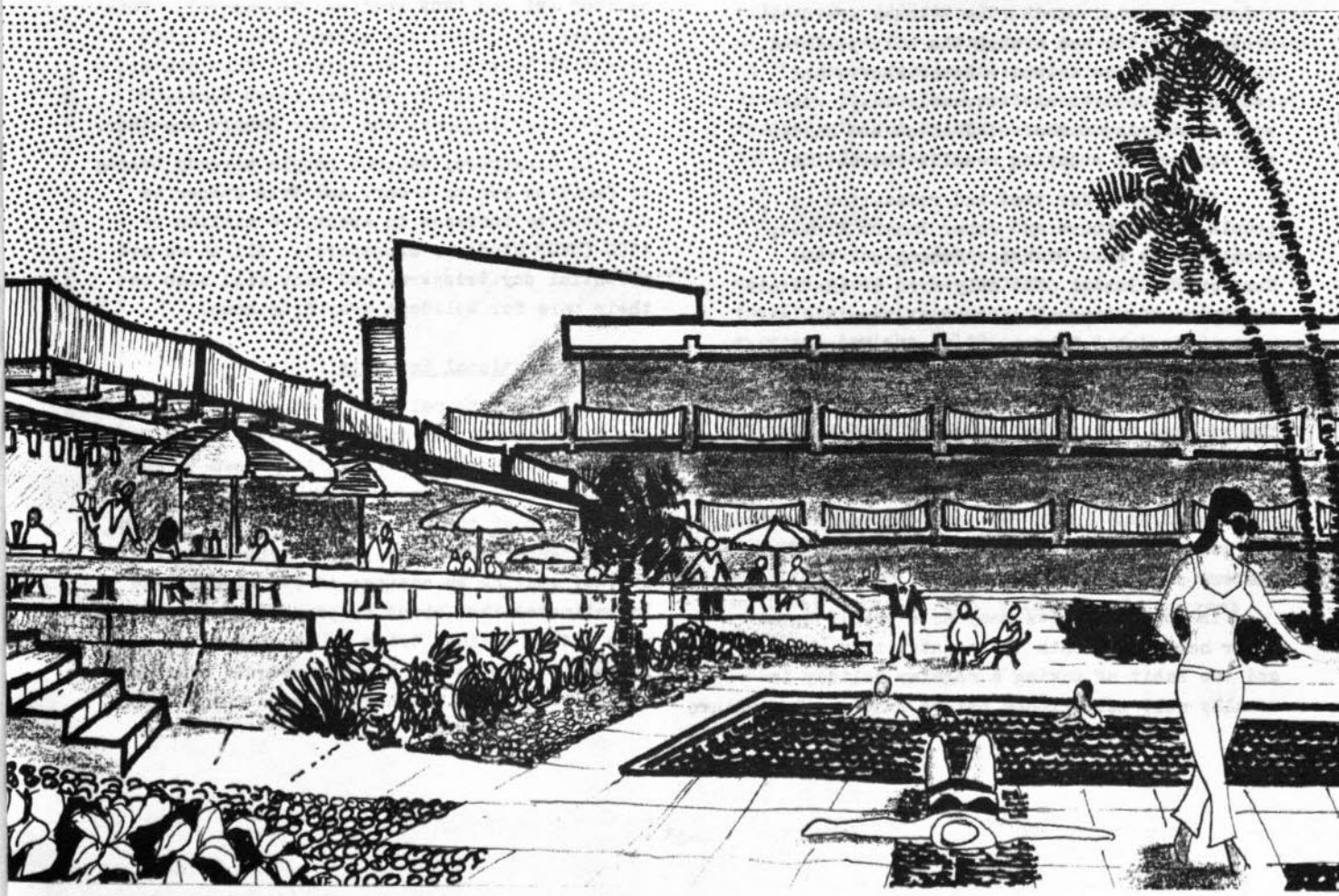


TABLE 1.2 Estimated Costs and Returns for Initial Tourist Project

		$ millions
a) CAPITAL INVESTMENT	(Public)	5.3 - 8.0
- do -	(Private)	9.5 - 6.8
TOTAL		14.8
b) ANNUAL INCOME		10.5
ANNUAL EXPENDITURE		8.0
ANNUAL SURPLUS		2.5
c) JOBS		600
Investment per job		24,600
Annual receipts per employee		17,500
d) RATES OF RETURN	(Financial)	17 - 18 percent
	(Social)	21 - 30 percent

Later studies will be necessary to refine the planning strategy and the phasing in relation to the growth of tourist demand, and to undertake research into facilities required.

The development of tourism could add to the diversity of employment in the region, establish a new growth point of economic activity and urbanisation, offer another opportunity for training young Malays and bringing them into a new and expanding sector of the economy, and help to create a new social and commercial centre in Southern Tanjong Penggerang.



CHAPTER 2

MARKET POTENTIAL

The tourist market is usually divided into two sectors: international and domestic. Johor is exceptional, in that its largest potential customer, Singapore, though a foreign country, is by its proximity, relative size, and cultural affinity, virtually part of the domestic market. The market is therefore discussed here under three headings - Singapore, (With which, for this purpose, may be coupled Johor Baharu) international and domestic. (Tables, graphs, calculations:- See Appendix A)

2.1 Singapore and Johor Baharu

It is likely that the principal demand for holidays in Johor State in the next few years will come from residents of Singapore and Johor Baharu. There are no data on the numbers and composition of recreational visitors at present crossing the causeway but it is known that a considerable number of Singaporeans spend weekends or longer periods in Malaysia and that some day trippers visit Jason Bay and Mersing, the only currently accessible beaches on the east coast of Johor. At weekends and holidays the small recreation park at Lombong Waterfalls also attracts day trippers from Singapore and Johor Baharu.

Life in Singapore is becoming more urban and more expensive; the few beaches are overcrowded and the sea around the city polluted. At weekends, the island's water sports and recreation centres are extremely busy. An ever increasing number of Chinese and Malays are apparently enjoying seaside recreation.

The search for rest and relaxation by people in Singapore and Johor Baharu already stretches to Port Dickson, Penang and the Cameron Highlands. The only area of the State receiving significant numbers of tourists at present is Johor Baharu, where the Mosques and Palaces attract day trips particularly from international visitors staying in Singapore The number, quality and range of facilities, particularly hotels, at the other existing tourist locations (Mersing, Lombong, Palm Beach near Masai, and Jason Bay) are extremely limited, and cannot provide the basis for attracting large numbers of visitors.

In most countries many more people spend their holidays within the country than abroad, and the habit of taking a regular holiday is usually well established before many people venture abroad. However, in the case of Singapore, visits to West Malaysia can be regarded as holidays within the same country, since Singapore is too small and densely urbanised to provide holiday resorts for more than a tiny fraction of its population, and there are no inhibiting cultural differences between the two countries. In Belgium, which has a similar geographical, ethnic, and cultural relationship to its neighbours as Singapore, the proportion of the population taking holidays outside the country is one of the highest in Europe. The present controls on the Johor causeway may limit the extent of recreational travel but is is likely that they will be relaxed or streamlined as the number of potential tourists increases.

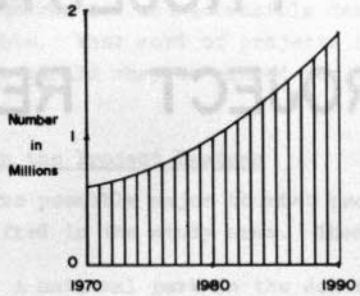
Studies in a number of countries suggest that there is a fairly close correlation between average per capita income and the proportion of people taking holidays away from home (Doxiadis Associates 1967). When average per capita income reaches $3,000 about 33 percent of the population take holidays; when average income reaches $6,600 about 67 percent of the population take holidays. The average per capita income in Singapore is about $2,100 in 1970 (Singapore Year Book 1968 & 69) and may reach or exceed $7,000 by 1990 (RI and UNDP Studies, Singapore). This suggests that there are already some 516,000 potential tourists in Singapore. This number will increase rapidly and may reach 2,244,000 by 1990 for Singapore and Johor Baharu together.

In Singapore, 440,000 people already belong to families owning a car, and this number is expected to increase to about 1.6 million by 1990 (UNDP Studies, Singapore). All these are potential day trippers, and many will also use their cars for holidays away from home.

2.2 International Tourists

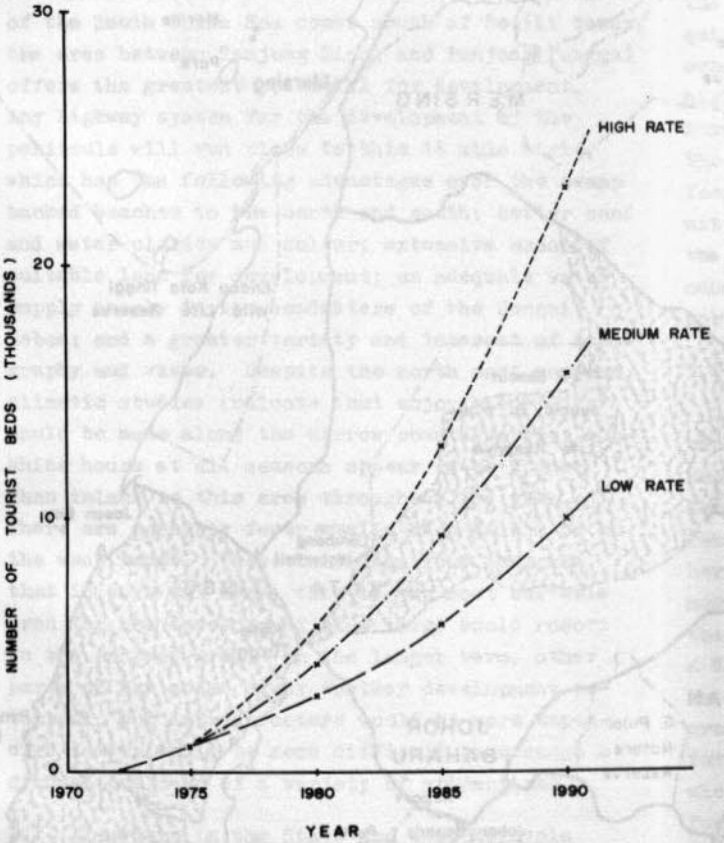
There are no reliable statistics of the number of international tourists crossing the Causeway from Singapore, or travelling down to Johor Baharu from Kuala Lumpur or Penang. But some indications of the potential market exist. In 1969 Singapore had over 300,000 visitors from abroad, staying an average of 3-5 nights, and it is estimated that about 55 percent of the visits were either holiday trips or holiday trips combined with business. This represents over half-a-million holiday overnight stays. Discussions

POTENTIAL NUMBER OF TOURISTS FROM SINGAPORE POPULATION



PROVISION OF TOURIST BEDS

(HIGH, MEDIUM & LOW RATES)



with Johor Baharu and Singapore travel agents and hoteliers indicate that over the next four years a continued annual growth rate of 25-30 percent is expected, with package deal tourism from Australia, Europe, and North America increasing some 200 percent in four years. Preliminary estimates for 1970 are that over 500,000 tourists visited Singapore, (Straits Times 19/3/1971).

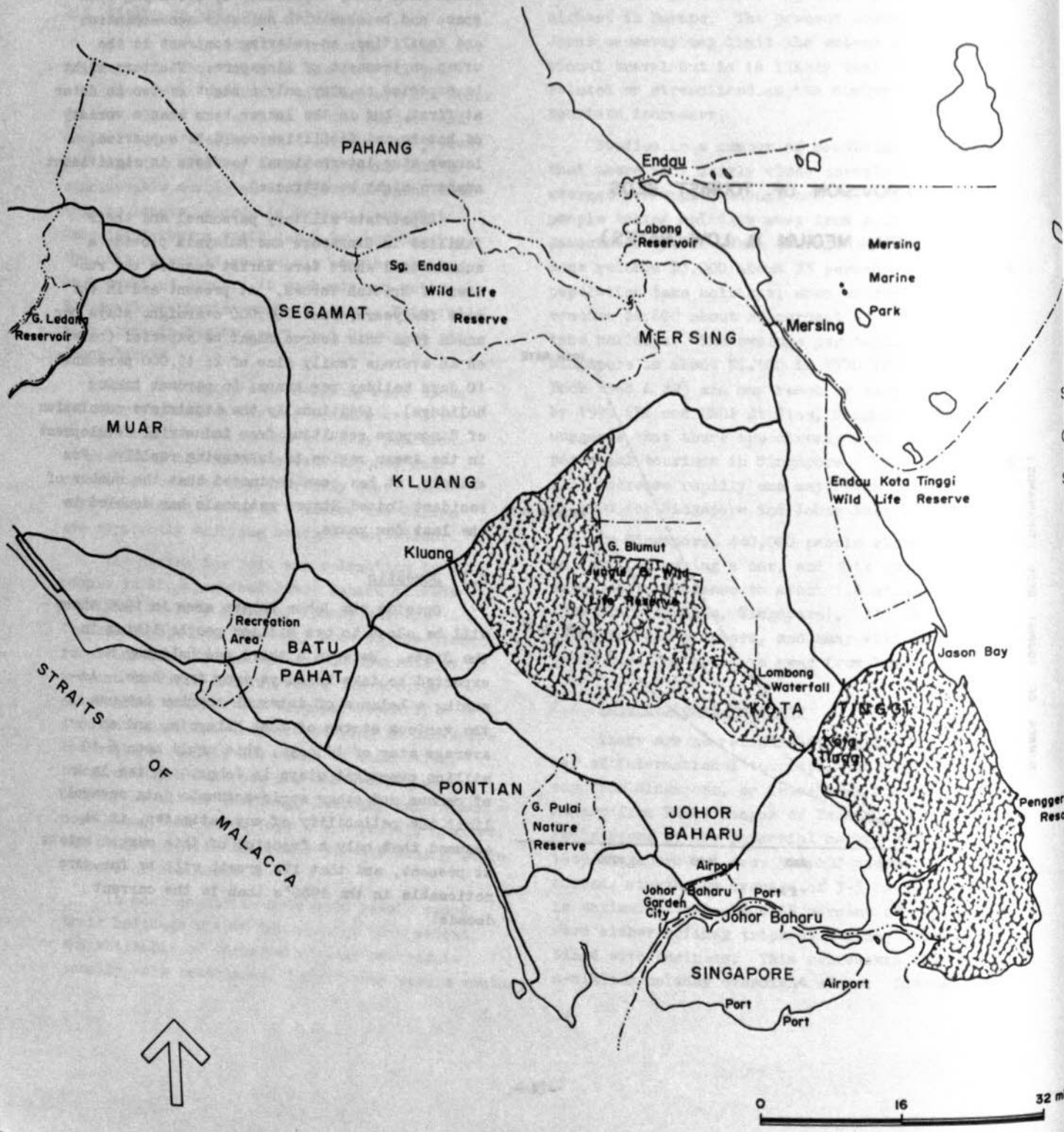
Package tours based on Singapore, with visits to Penang, Bali, and Bangkok are a rapidly expanding market. Developments in Malaysia, particularly Johor, could play a significant role in diversifying and expanding the attractions of South East Asia, especially by providing open space and beaches with suitable accommodation and facilities, as relaxing contrast to the urban environment of Singapore. Visitors might be expected to stay only a night or two in Johor at first, but in the longer term when a variety of hotels and facilities could be supported, longer stay international tourists in significant numbers might be attracted.

Expatriate military personnel and their families in Singapore and Malaysia provide a substantial short term market despite the rundown of British forces. At present and in the next few years, some 200,000 overnight stays per annum from this source might be expected (based on an average family size of 2; 15,000 personnel; 10 days holiday per annum; 66 percent taking holidays). Additionally the expatriate population of Singapore resulting from industrial development in the Asean region is increasing rapidly. For example, it has been estimated that the number of resident United States nationals has doubled in the last few years.

2.3 Domestic

Outside the Johor Baharu area in 1990 there will be close to two million people living in the State. Between a third and half may be expected to take holidays away from home. Assuming a balance of internal tourism between the various states of West Malaysia, and an average stay of 10 days, this could mean 6-10 million overnight stays in Johor. As the lack of census and other socio-economic data severely limit the reliability of any estimates, it is assumed that only a fraction of this market exists at present, and that its growth will be far more noticeable in the 1980's than in the current decade.

POSSIBLE TOURIST PROJECTS I
JOHOR & THE PROJECT REGION



CHAPTER 3

POSSIBLE DEVELOPMENT PROJECTS

These potential demands will not be realised until attractive and accessible destinations are available. What sort of projects are possible, and how should they be ranked for investment priority?

3.1 In the Project Regions

Two possible major tourist projects have been identified in the study area. These are:-

3.1.1 A national park in the Johor Tengah Region.

This includes a hill station hotel complex (at over 2,000 feet above sea level) on Gunong Blumut with a golf course, primary jungle, wild life and forest conservation areas, and lakes. At the southern end of this area, an extension of the existing restaurant and chalet development at Lombong Waterfalls, could include a hotel, lake and golf course above the falls.

3.1.2 The Tanjong Penggerang beaches.

While extensive beaches run the whole length of the South China Sea coast south of Sedili Besar, the area between Tanjong Siang and Tanjong Punggai offers the greatest potential for development. Any highway system for the development of the peninsula will run close to this 16 mile strip, which has the following advantages over the swamp backed beaches to the north and south: better sand and water clarity and colour; extensive areas of suitable land for development; an adequate water supply nearby in the headwaters of the Sungai Lebam; and a greater variety and interest of topography and views. Despite the north east monsoon, climatic studies indicate that enjoyable visits could be made along the narrow coastal strip, sunshine hours at all seasons appear to be higher than inland to this area throughout the year. There are possibly fewer squalls than inland or on the west coast. These considerations indicate that in physical terms this is the most suitable area for the development of a large scale resort in the Project Area. In the longer term, other parts of the coast offer further development potential, but infrastructure would be more expensive and it would be more difficult to arrange a gradual build-up of a variety of attractions.

3.2 Elsewhere in the State and West Malaysia

Several projects are being considered or are under way, and they may be taken to represent competitors to developments in the project regions, in terms of government backing, investment availability and attracting the potential market. Their relative merits are discussed in the following sections.

3.2.1 Johor Baharu Region

There is a danger of confusing the market for recreation, day trips and amenity projects with the market for tourism - staying at places away from home for one night or more. It should be noted that current developments in Johor Baharu region are largely part of the function of the city as a State capital. As the city grows, successful hotel, amenity and recreation projects can be expected to take place, particularly to provide for day visitors from Singapore. It would not be appropriate to establish a holiday resort in Johor Baharu itself.

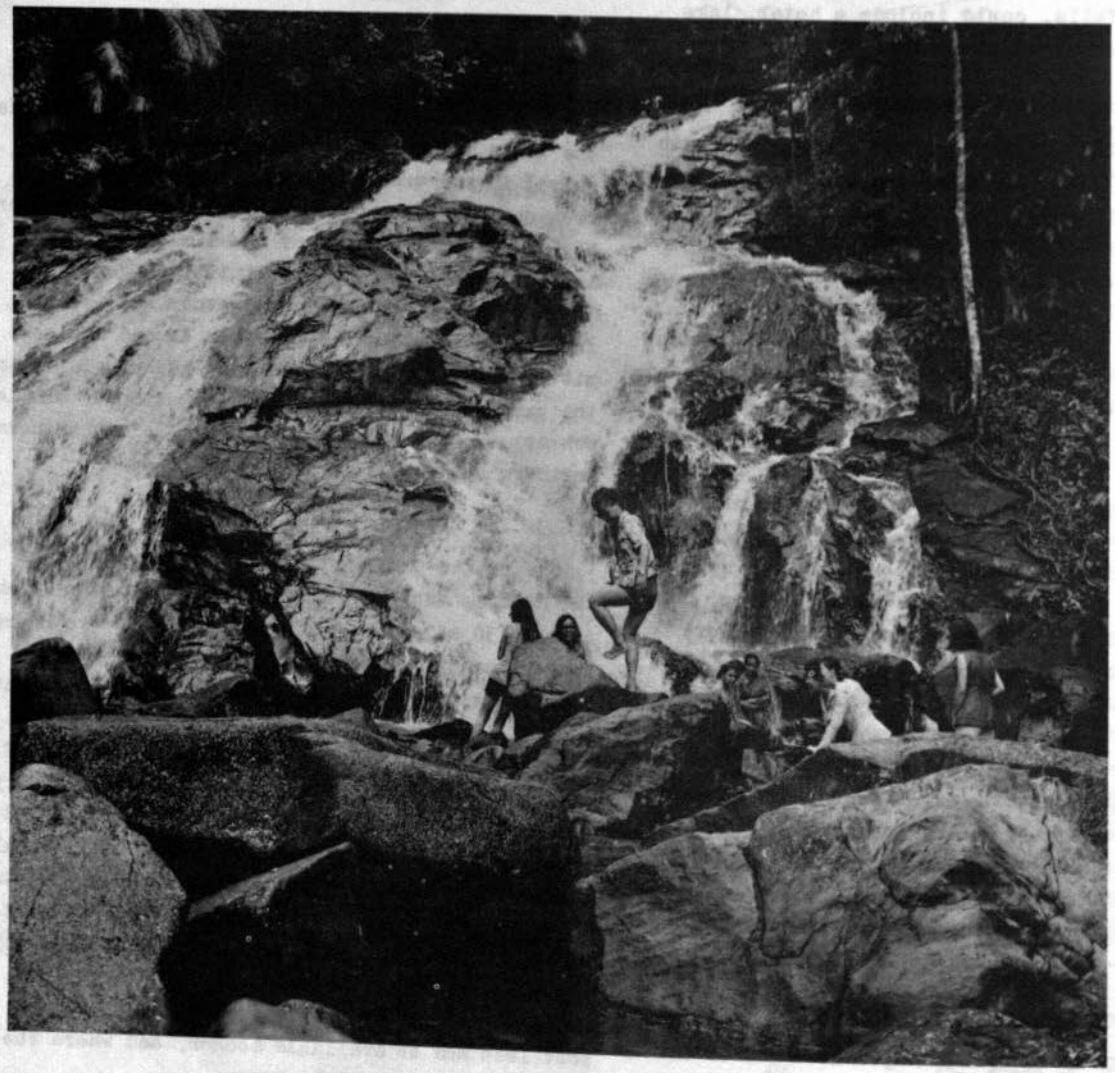
3.2.2 Forest reserves and hill stations.

In the Development Plan the reservation of large forest areas in Johor Tengah, which provides the basis for a possible national park, is required in any event, because of water supply, erosion, and other conservation factors. However, high development costs and the limited scale of accommodation that could be built, suggest that the development of hotels and other hill station facilities should await a proven demand and committed private sector developer, perhaps following the completion and successful operation of similar schemes already under way in the more mountainous northern states.

3.2.3 The Mersing - Endau area.

From the Causeway, the main attractions of the Mersing area, the islands, are a boat ride and another 30 miles by road, i.e. at least two hours longer than the longest route to the Tanjong Penggerang coast. This suggests that developments here will be orientated towards the longer stay, more prosperous, boat owning or using sectors of the market, and people touring Malaya extensively. A demand for such facilities already exists, and is being stimulated by existing state and federal promotion. However, this area provides no substitute for developing the Tanjong Penggerang coast, where the beach and land capacity and suitability for large scale development are so much greater, where the necessary infrastructure is likely to cost less and be available sooner, and where the major market is so much closer.

LOMBONG WATERFALLS
AND
HOLIDAY CHALET



3.2.4 Other projects in W. Malaysia.

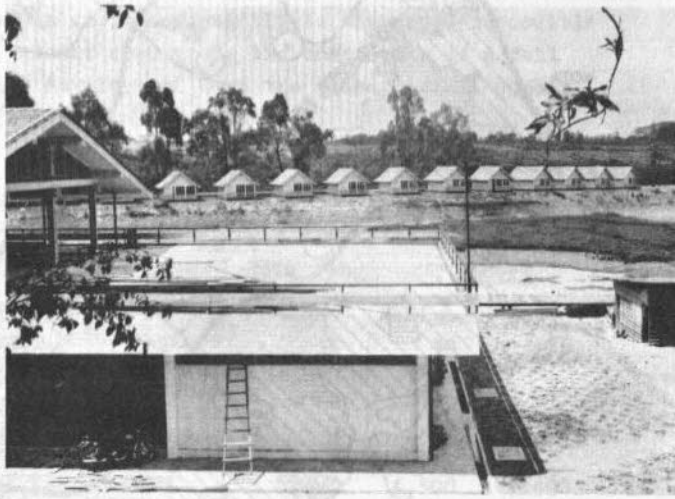
Consideration of tourist development proposals outside the state, e.g. the beach developments of the east coast states, the national park and highland recreation projects north of Johor, and the attractions and potential of Penang, Malacca and Port Dickson, suggests that the proposed resort on the Tanjong Penggerang Coast is unlikely to be of such a scale as to limit their development. They would expect to attract greater numbers of international and Malaysian visitors, and the more mobile, prosperous and longer stay visitors from Singapore.

3.3 Conclusions

This assessment of alternative prospects makes it clear that the main opportunity for tourist development in Johor over the next twenty years lies in the creation of a major resort on the Tanjong Penggerang coast between Tanjong Siang and Tanjong Punggai, though the market will probably also support some smaller tourist developments, in other parts of the project area and the State.

The main development should be on the Tanjong Penggerang coast because it is the nearest area to the major market, and has the largest capacity and potential in relation to holiday taking by car of the residents of Singapore and Johor Baharu. To open up this long term potential the early completion of an initial comprehensive scheme is required.

LIDO - JOHOR BAHARU

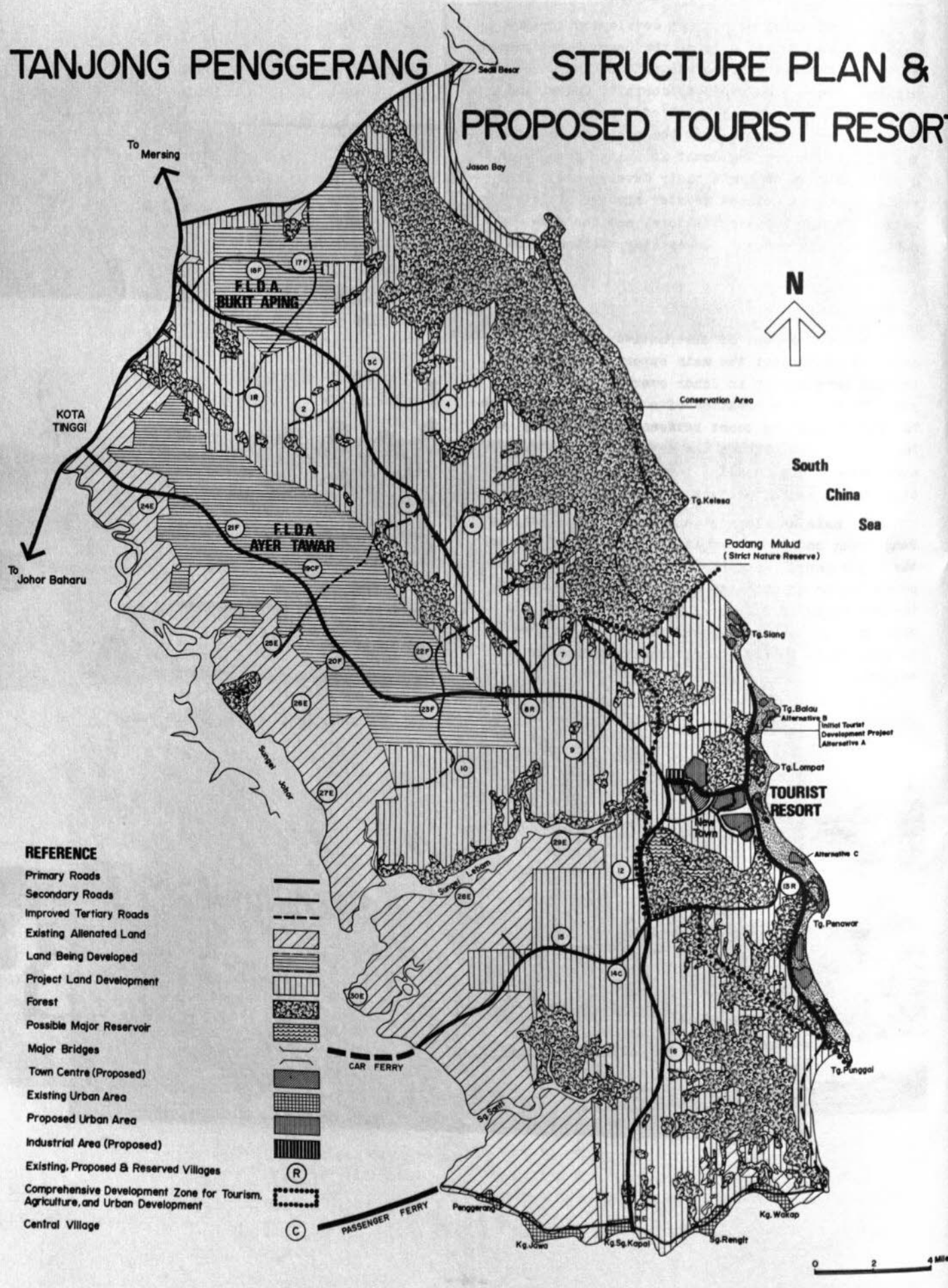


TROPICAL PARADISE - JOHOR BAHARU

TOURIST CENTRE - MERSING

GOLF COURSE - JOHOR BAHARU

TANJONG PENGGERANG STRUCTURE PLAN & PROPOSED TOURIST RESORT



CHAPTER 4

THE POTENTIAL OF THE TANJONG PENGGERANG COAST

4.1 Introduction

The proposed resort could cater for a maximum of 90,000 visitors at any time, of whom 40,000 might be day trippers. 50,000 tourists would create 20-30,000 full time jobs. Based on the assumptions that there would be a further 25 to 30 percent of jobs in supporting services and that 30-40 percent of the total population would be employed. The resort might grow to support an ultimate population of up to 100,000.

The Tanjong Penggerang coast will provide the nearest attractive beaches to Singapore. By 1985, the provision of a vehicle ferry across the estuary of the S. Johor will be justified to handle the regions agricultural produce, and this will improve accessibility. It may be argued that the beaches will be so accessible that they will attract mainly day and weekend trippers rather than long stay holiday makers. However, the Singapore weekend is still relatively short and the rainfall in the area is variable; a day may be spoilt by rain but a week is unlikely to be without long sunny periods at any season. This is a strong incentive to overnight, weekend, and longer stays - provided there is suitable accommodation and attractive activities such as golf, fishing, hunting, water sports and children's play, together with evening and wet weather facilities. In this respect, the inclusion of a casino in the initial project would provide an additional attraction to investors and visitors.

The proposed initial tourist project would provide 1,000 beds. (The reasons for this number are given in chapter 5). Assuming average occupancy of 60 percent, and an average stay of 5 days, there would be over 43,000 visitors a year. This is only 8 percent of the potential number of tourists from Singapore in 1975 (section 2.1). If the average stay were 10 days, typical of holiday resorts in many countries, the annual number of visitors would be 22,000, only 4 percent of the potential Singapore market. Tanjong Penggerang should have no difficulty in attracting visitors from Singapore in these numbers; it is much closer than competing destinations in the highlands, on the west coast of Malaysia or in Sumatra. The proposed resort should also attract a proportion of the foreign tourists who visit Singapore and Malaysia every year, and of course some of the growing number of Malaysians who will be able to enjoy seaside holidays.

Once successfully established, a holiday resort in Tanjong Penggerang should expand steadily since for many years the amount of tourist accommodation and facilities in Malaysia is unlikely to exceed the growing demand from within the country, from Singapore and from abroad.

The beach capacity of the sixteen mile strip is around 90,000 (Appendix B). With generous allowances for use of the beach by day visitors and the resident population, the capacity available for overnight visitors would be 40-50,000. To achieve this scale of development, different types of accommodation and facilities and different methods of financing and organisation might be combined in various ways. It is therefore impossible to forecast accurately the components of a full resort development, and the consequential number of jobs created through time.

However, the assumed levels of population, employment and accommodation in table 4.1 show three possible scales of development.

TABLE 4.1 Proposed Tanjong Penggerang Resort

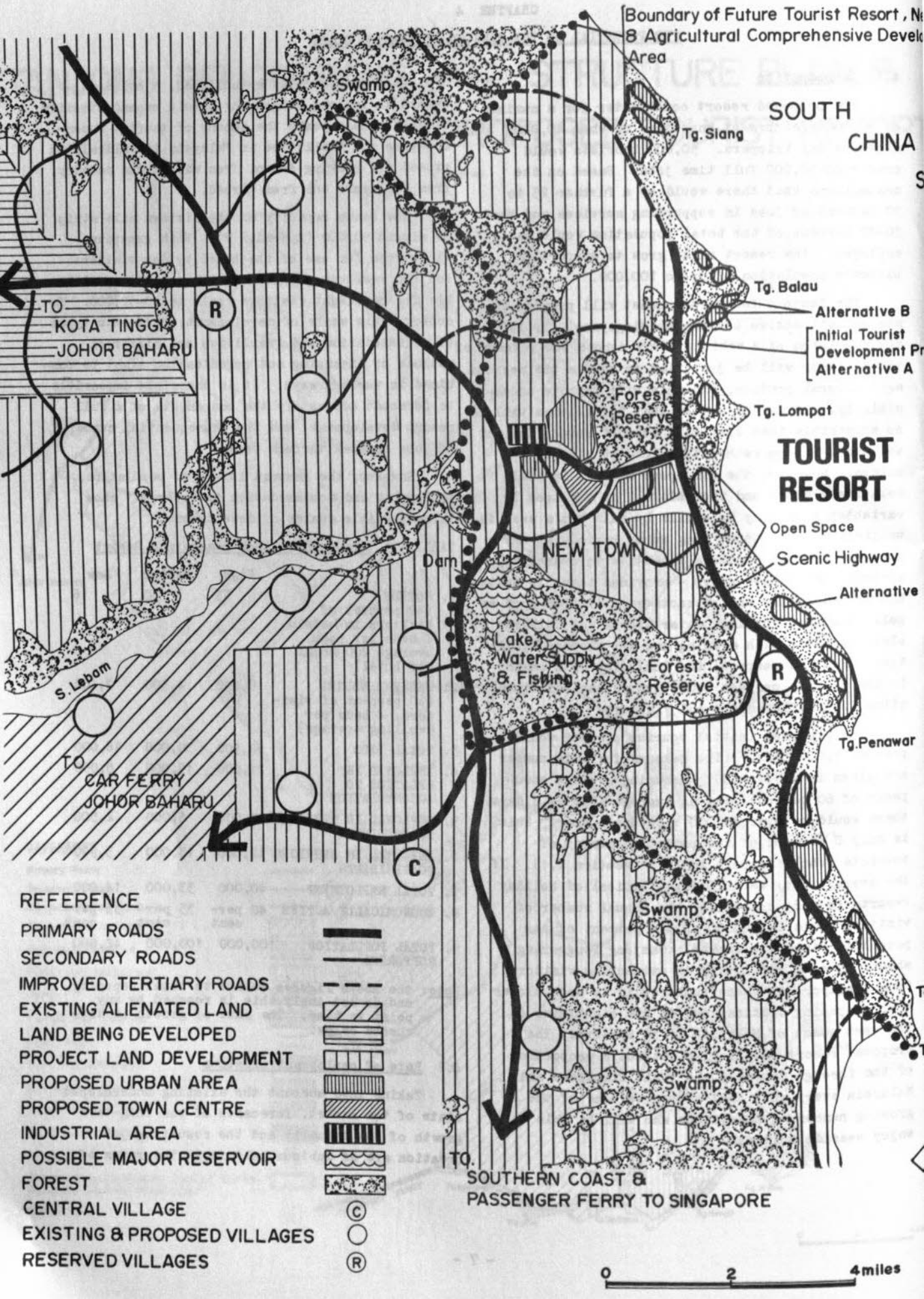
	High	Medium	Low
1. HOTELS (40 percent of visitors in hotels 2 beds per room, average 200 rooms per hotel)	53	30	16
2. WEEKEND HOUSES (60 percent of visitors, 4 beds per dwelling average)	8,000	4,500	2,400
3. TOTAL BEDS	52,500	30,000	16,000
4. EMPLOYED IN RELATION TO ACCOMMODATION	21,000	15,000	8,000
5. EMPLOYED IN SERVICES TO TOURISTS	7,000	5,000	2,500
6. EMPLOYED IN SERVICES TO RESIDENTS	12,000	13,000	3,500
7. TOTAL EMPLOYMENT	40,000	33,000	14,000
8. ECONOMICALLY ACTIVE	40 percent	33 percent	33 percent
9. TOTAL POPULATION SUPPORTED	100,000	100,000	42,000

Note: the above figures relate to total capacity, and do not imply this is reached by any point in time. The rate of growth is discussed below.

4.2 Rate of employment creation

Taking into account the existing undeveloped state of the market, forecasts of the long-term growth of the industry and the resulting job creation are of dubious validity. The rates of

TOURIST RESORT STRUCTURE PLAN



growth shown in table 4.2 are given only as indications of the scale of development possible without exceeding apparent potential demand.

TABLE 4.2 Rates of Employment Creation in Tourism

Years	High	Medium	Low		Medium Accumulated
0- 5	600	600	600	1975	600
6-10	2,800	2,000	1,200	1980	2,600
11-20	10,400	7,400	4,200	1990	10,000
21-30	14,000	9,800	5,600	2000	19,800
TOTAL	27,800	19,800	11,600		19,800

4.3 Market Feasibility

Assumptions

i) An average of 220 days per annum (60 percent occupancy) for all rooms.

ii) Average 15 days a year spent away from home by Singapore holiday takers in 1990.

iii) Twenty percent of stays by international and Malaysian visitors.

iv) Assumed 67 percent of the 2.75 mn population projected in Singapore by 1990, are holiday takers.

TABLE 4.3 Visitors to The Resort in 1990

	High	Medium	Low
1. TOTAL OVERNIGHT STAYS (in millions per annum)	6.1	4.4	2.6
2. OVERNIGHT STAYS BY SINGAPORE RESIDENTS	4.9	3.5	2.1
3. PERCENT OF SINGAPORE MARKET REQUIRED	18	13	8

Developments of these proportions will require continuous government backing, a strong development organisation associated with it, and continuous research and evaluation to promote a fast rate of development and secure the maximum returns in incomes, job creation, and Malay participation (Chapter 7), but potentially the market is there.

4.4 The Resort Development Plan

The outline structure plan covers the sixteen mile coastal strip from Tanjong Siang to Tanjong Punggai, and is integrated with the proposed communication, settlement and agricultural development structures for Tanjong Penggerang. These are described in detail in Supporting Volume 8, which includes the recommended communication and infrastructure services for the development of the region.

The principles of the resort plan are:-

i) The location of new settlements and road

PRINCIPAL BEACHES

ALTERNATIVE BEACHES

links from existing villages to facilitate access to and the development of a variety of employment opportunities - agriculture, tourism, construction, transport, commerce and other services; leading to -

ii) The creation of a new major social and commercial centre in Southern Tanjong Penggerang.

iii) A variety of sites for different categories of tourist developments, set in an attractive landscape along the coast, separated and identified by large areas of parkland and agriculture and by new tree planting and the retention of existing forest on the attractive headlands and the water supply catchments, steep slopes, river valleys and swamps inland.

iv) Phasing to allow for deferred and gradual expenditure and natural growth and expansion.

Appendix C gives preliminary estimates of land, water and road requirements for the full resort development.

From the proposed primary regional road system, the coastal strip is reached by three secondary roads, also serving agricultural areas. The proposed central agricultural village is planned to grow to an urban service centre for the surrounding area and the tourist resort. Part of the adjacent area will be reserved for long term urban expansion, but developed initially for agriculture. Three smaller long term housing areas for people living and employed along the coast are also reserved. This allows for the gradual growth of the resident population to 100,000.

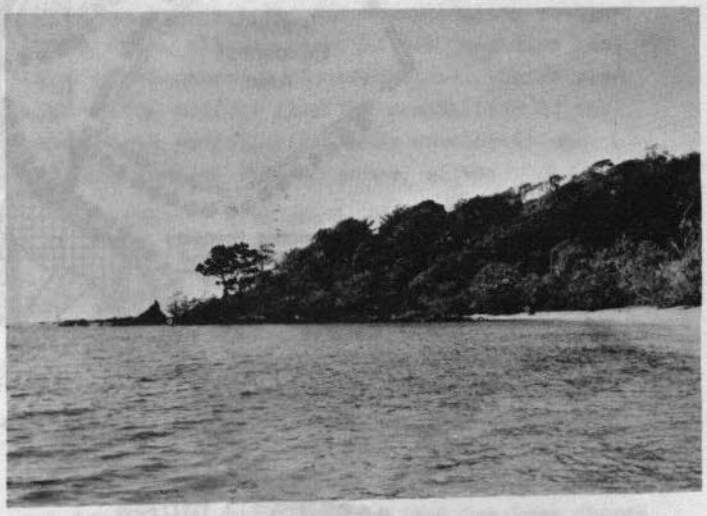
The building sites for tourism are clustered around the headlands, and are served by a spinal road set back ¼ to 1 mile from the coast on the ridges 150 feet - 200 feet above sea level; it would be a scenic highway giving views down to the coast. A series of large open spaces for parks, camping, picnicing, golf courses, other sporting, recreation and local activities are allocated along the coast.

The development of facilities by social, health and educational organisations can be expected to play an important role in the resort. The International School based in Singapore has already expressed strong interest in establishing a seaside adventure and training branch close to the initial scheme. Every encouragement should be given to such projects, and the plan has the flexibility to accommodate them.

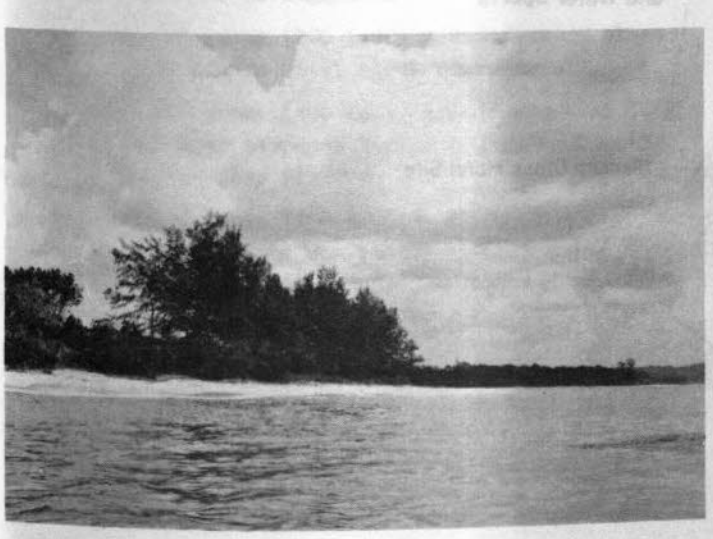
Two large forest reserves are proposed; the first of 3.5 square miles on the steep slopes behind Tanjong Lompat; the second is the water

supply catchment of 7.5 square miles at the head of the S. Lebam. These could provide additional ammenities as could the proposed reservoir on the S. Lebam, any proposals would need to be subjected to strict control.

The area to the north of Tanjong Balau at present alienated for silica sand mining has been included in the resort area, because of the excellent quality of the beaches from Tanjong Siang to Tanjong Balau. As the areas to be mined are small, it would be advisable to revise as soon as possible the present extensive alienation boundaries to accord with the extent of the deposits, and to plan for tourist development in this area after the sand has been extracted. Every encouragement should be given to the early completion of mining. In addition the extraction process should be carefully controlled to ensure minimum damage to the natural environment.

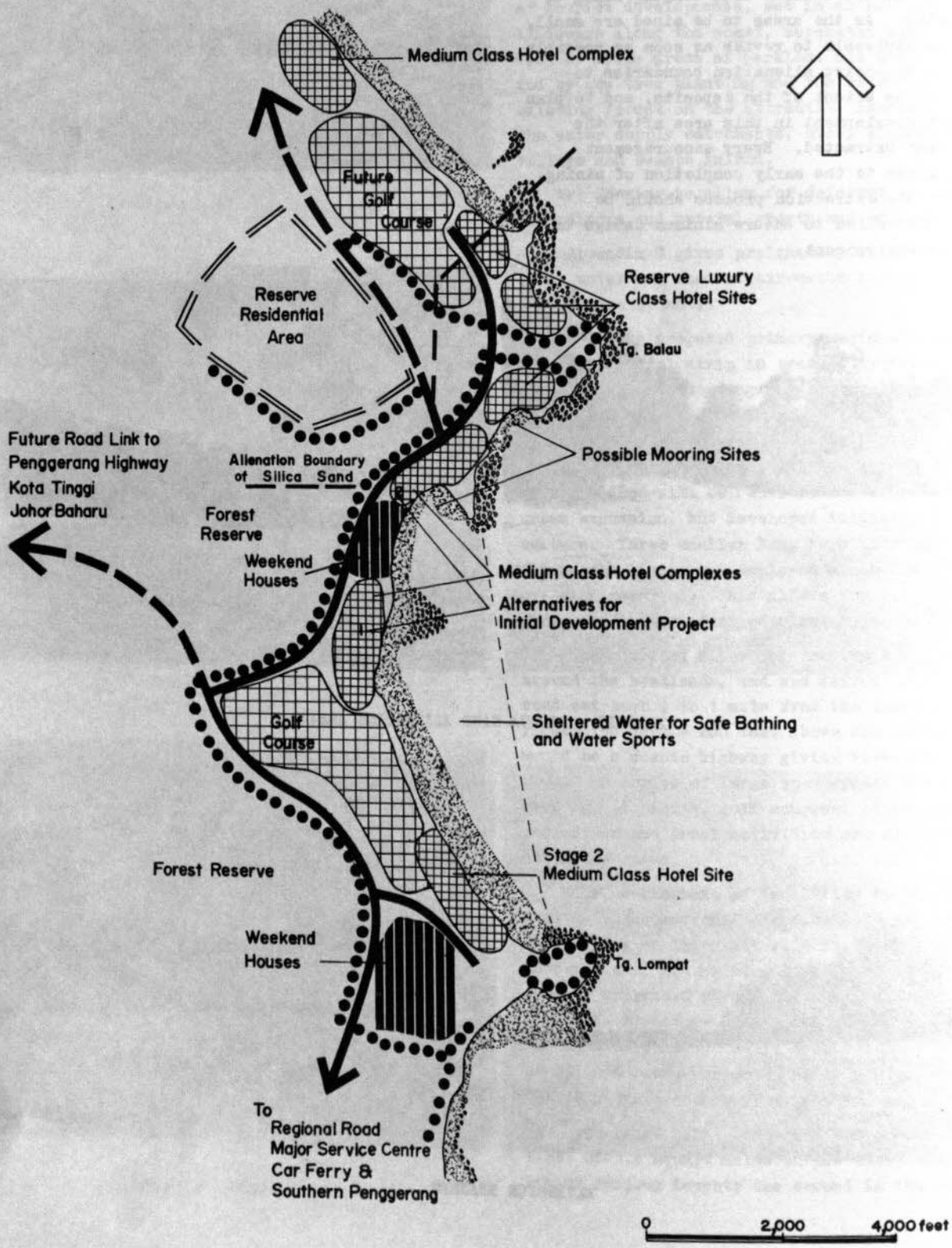


BEACHES - SILICA SAND ALIENATION AREA



EXTENSION BEACHES

OUTLINE STRUCTURE PLAN
TG. BALAU — TG. LOMPAT



CHAPTER 5

INITIAL TOURIST DEVELOPMENT PROJECT

5.1 Introduction

A comprehensive initial development scheme is necessary to stimulate the potential market. Detailed plans need to be prepared in conjunction with a possible developer to finalise the contents and costs. However, the order of facilities thought appropriate and first estimates of costs and returns are given below to provide a basis for assessing the viability of the project.

5.2 The Accommodation and Facilities

Accommodation (including catering) is normally the most important and profitable source of income in tourist developments. Except for bars, ancillary amenities are unlikely to give high returns, yet it is the provision of a range of amenities (cinemas, restaurants, swimming pools, golf courses, etc), that attracts visitors in large numbers, and these amenities can only be operated profitably if large numbers of visitors use them. For example, 2-300 people can play on an eighteen hole golf course every day. Therefore the initial scheme has to be large enough to support a broad range of activities, but not so large as to deter potential investors.

It should also contain a sufficient variety of types and prices of accommodation and amenities to act as a stimulus to the various sectors of the market, so that further research can measure reactions and provide a more secure basis for long term planning.

To strike a balance between these requirements, a hotel complex with the following accommodation and facilities is suggested:-

i) 100 rooms (200 beds) medium/luxury class in a main hotel block (Category I).

ii) 200 rooms (400 beds) medium class in single storey terraces linked to the main hotel (Category II).

iii) 400 rooms (100 dwellings) in family accommodation of single storey detached chalets near the hotel buildings (Category III).

iv) A golf course and driving range.

v) A small centre with shops and restaurants serving long-stay visitors, day trippers and local residents.

vi) Children's play areas.

vii) A swimming pool, or pools.

viii) Evening facilities for cinema, TV, games, dancing, entertainment etc., in the hotel.

This number and category of beds and the range of amenities might be changed, in the light of the precise physical features of the selected site, and of detailed market research with potential developers.

5.3 Site Selection

In seeking a site for this initial project, the following considerations were taken into account. The probable phasing and costs of roads and services; the need for an attractive sheltered site on a stretch of beach and water suitable for water sports and swimming; availability of suitable building land avoiding excessive construction costs; suitability for the accommodation outlined above; and a site which could not prejudice the later development on adjacent sites. Three possible sites emerged from the examination of the resort area according to these considerations, they are each of 150-250 acres, sited:

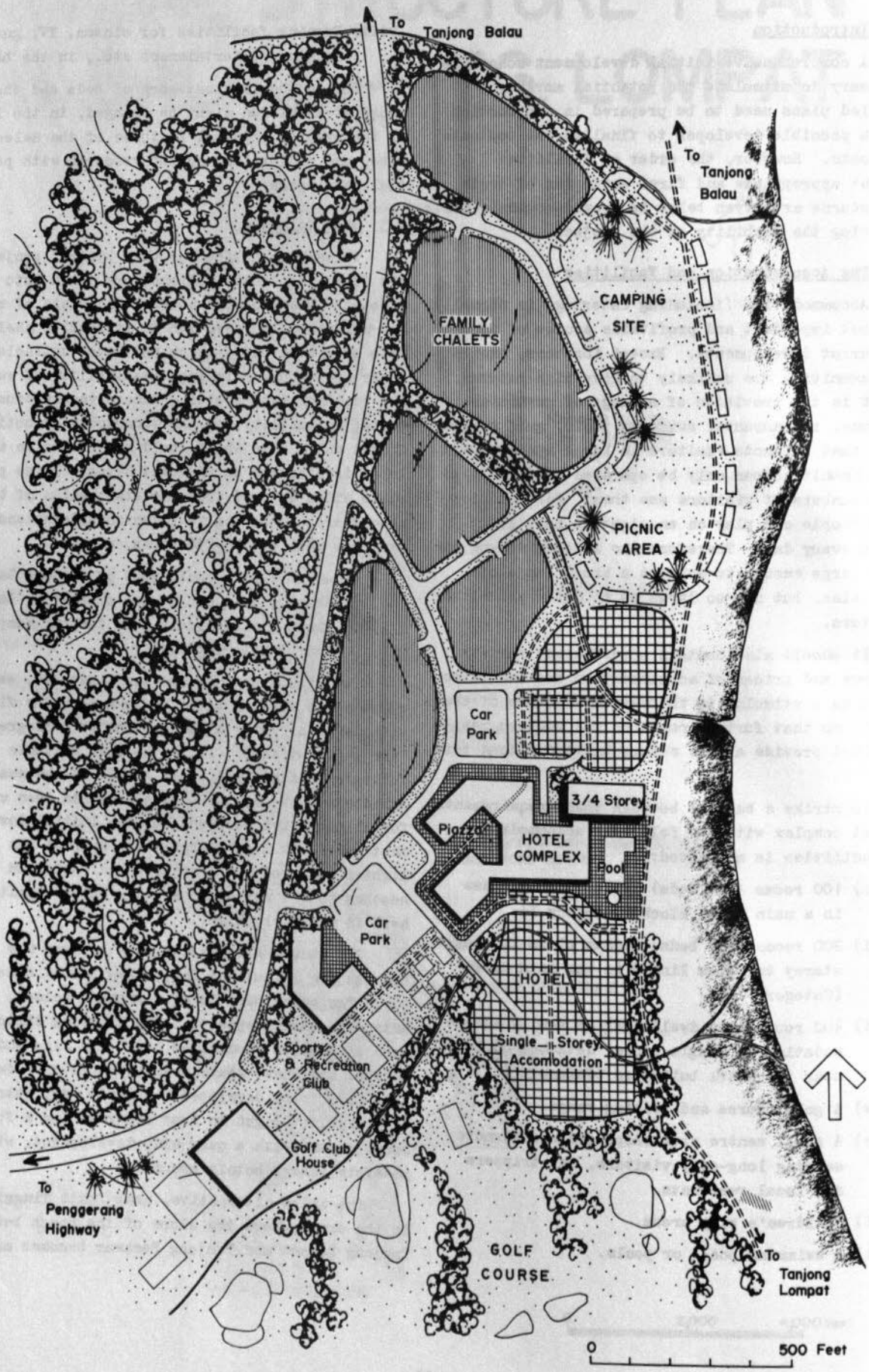
1) about 1 mile south west of Tanjong Balau,
2) about ¼ mile south west of Tanjong Balau,
3) about 3 miles south from Tanjong Lompat, near Bukit Tinggi.

The silica sand alienation limits the extent of possible initial sites northwards. The first site is on a gently sloping beach of dark grey fine textured sand. It is the most suitable beach for safe bathing, and water sports on the coast, and despite the colour of the sand, has been chosen for illustrative purposes for the initial development site. It lies within easy reach of the lighter coloured but less safe and sheltered beaches to the north and south. Water clarity here is extremely high.

The second alternative lies between the first, and Tanjong Balau; and has access to the same safe bay. The beach here is of a lighter colour, with extensive shell deposits. The existing silica sand alienation boundaries limit its size and access, and these would need to be altered for this site to be developed. While a very attractive site, it might be best reserved for a future local centre with a quay side development, with possible luxury hotels around.

The third alternative, near Bukit Tinggi is in the area, where the slope of the beach between Tanjong Lompat and Tanjong Penawar becomes much

SKETCH PLAN — INITIAL TOURIST PROJECT



safer. The golden sands make this a most attractive proposition, but not being as sheltered as the other alternatives, its water sports potential is likely to be less.

The first stage of the recommended detailed study should decide the site for the project, by detailed examination of these alternatives in discussion with potential developers, and the State and Federal governments.

5.4 Outline Development Plan

The plans and sketches illustrate the principles to be taken into account in the design of the development plan for the initial scheme, for illustrative purposes the first alternative site described above has been used.

The hotel centre containing the Category I accommodation, the swimming pool, restaurants, bars, reception, offices and shopping centre is located between two areas of Category II accommodation. It stretches some 5-600 feet back from the beach, and the buildings are grouped around two planted open spaces, the beach side pool and terraces, and the shopping piazza.

The Category II accommodation of single storey terraces is in two areas stretching 3-500 feet north and south from the centre and up to 300 feet back from the beach. The terraces with their patios and covered walkways for shade and shelter are grouped informally around planted gardens containing children's play areas, badminton courts, flower beds, etc. These areas include the two streams running through the site as an additional amenity feature. Private car access roads and parking areas are provided for each group of terraces.

The chalet/weekend house detached accommodation is in five main areas within 900 feet of the beach covering 25 acres behind and to the north of the main complex. Further scattered chalets could be provided around the edges of the golf course and the terrace accommodation.

Extensive tree planting as well as the retention of existing trees throughout the hotel complex is proposed for shelter and shade and to create an attractive setting for the buildings, the architecture of which should include an emphasis on wooden construction. This would assist in the creation of a strong Malay character.

The sites for the golf club house and a possible sports and recreation club are situated to the south west of the centre, and the golf course stretches south and west from there.

In the north of the complex, a large picnic area for day visitors and a camping site are proposed directly adjacent to the beach.

All these elements are linked by a system of local footpaths, and served by a separate local road system. The first stage of the coastal scenic route from the Tanjong Penggerang Highway comes to within half a mile of the complex. A link to the complex, and to further developments northwards, is required.

A local distributor road within the complex gives access to the various areas, uses, local roads, and the two major car parking areas adjacent to the centre. These have space for 4-500 vehicles. A special service vehicle area for the centre is provided.

In the construction and establishment period, specialist advice on beach cleansing, insect control, and other important maintenance considerations will be required.

5.5 Occupancy Assumptions

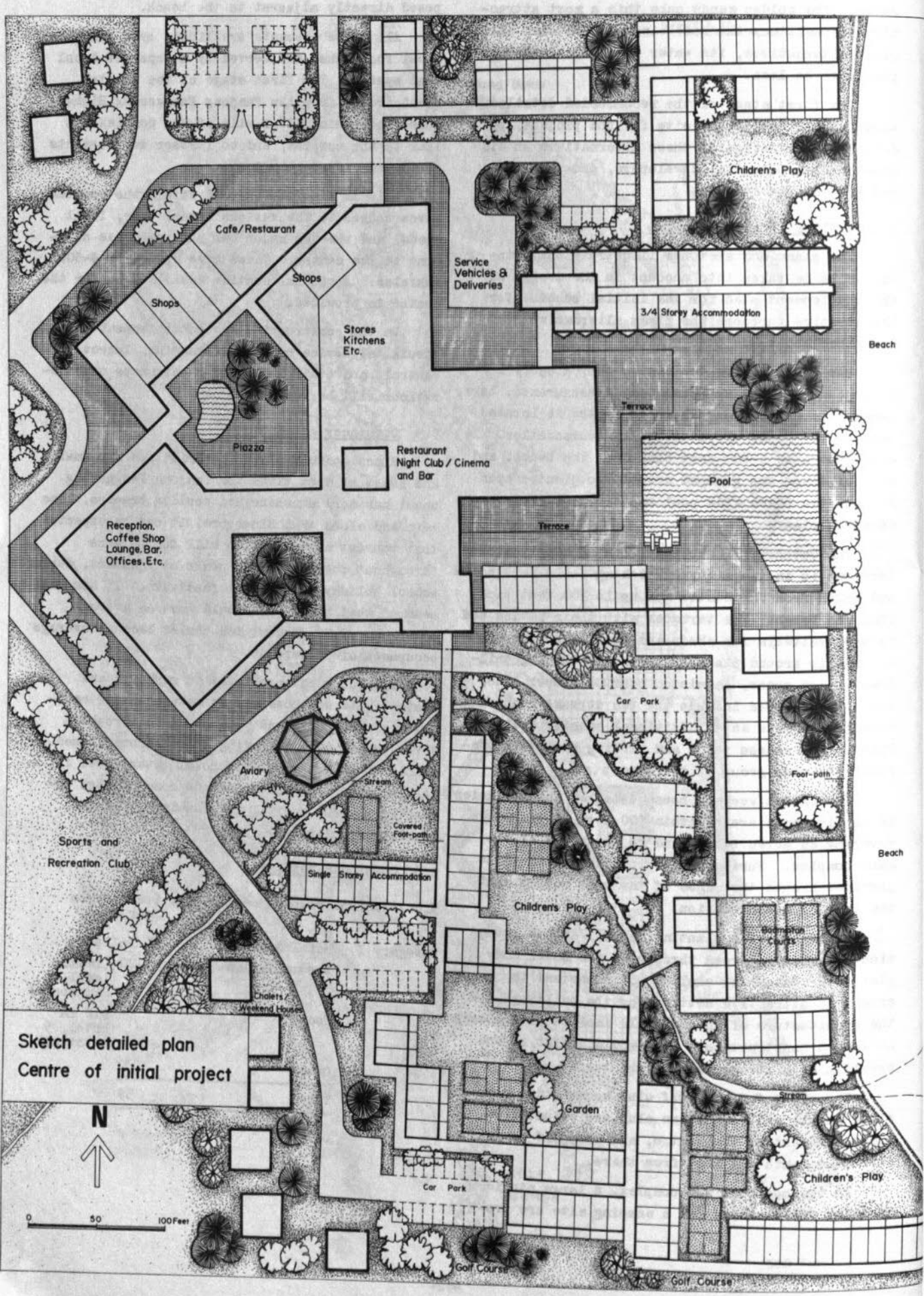
Since monthly climatic variations are small, and since at most times the Tanjong Penggerang coast has more sunshine and cooling breezes, less rain and cloud than Singapore, it can be expected that tourist accommodation will do business throughout the year, with peaks at weekends, during school holidays and annual festivals. It has been assumed that hotel beds would have an average occupancy of 70 percent and chalet beds an average occupancy of 50 percent.

Without much more detailed research and design it is not possible to make accurate estimates of the costs and returns of the proposed development. The following calculations, based mainly on information from hotel enterprises in Malaysia and Singapore, include conservative assumptions about capital and running costs and tourist expenditure.

5.6 Costs and Returns

5.6.1 Annual revenue assumptions (per person per day)

		Dollars
Category I	Hotel Guests	
	Accommodation	20 (medium level, Singapore)
	Food	15 (10 in hotel, 5 outside)
	Other	20
	Total	55


Sketch detailed plan
Centre of initial project
N
0
50
100 Feet
Cafe/Restaurant
Shops
Shops
Stores
Kitchens
Etc.
Piazza
Service
Vehicles &
Deliveries
Children's Play
3/4 Storey Accommodation
Beach
Terrace
Pool
Restaurant
Night Club / Cinema
and Bar
Reception,
Coffee Shop
Lounge, Bar,
Offices, Etc.
Terrace
Car Park
Aviary
Stream
Covered
Foot-path
Foot-path
Sports and
Recreation Club
Single Storey Accommodation
Children's Play
Beach
Badminton
Courts
Chalets /
Weekend Houses
Garden
Stream
Car Park
Children's Play
Golf Course
Golf Course

		Dollars	
Category II	Hotel Guests:		
	Accommodation	15	a day (below medium level in Singapore
	Food	15	(10 in hotel, 5 outside)
	Other	10	
	Total	40	
Category III	Chalets:		
	Accommodation	12	a day
	Food	12	(8 in hotel, 4 outside)
	Other	8	
	Total	32	
Category IV	Day trippers:		
	in hotels	3	
	elsewhere	2	
	Total	5	

5.6.2 Totals per annum

			Dollars
Hotel (Category I)	255x200	@ $55	2,805,000
Hotel (Category II)	255x400	@ $40	4,080,000
Hotel (Category III)	180x400	@ $32	2,304,000
Day visitors 375,000 (per annum) (based on 250 days at average 1500 visitors, ample space on beaches within walking distance of complex, and car parking for 5-600 vehicles)		$ 5	1,875,000
		Total	11,064,000

5.6.3 Capital costs

Hotel and recreation complex

i) Hotel rooms	: 100 @ $25,000	2,500,000
ii) Hotel rooms	: 200 @ $20,000	4,000,000
iii) Chalets	: 100 @ $20,000	2,000,000
iv) Golf course, restaurants, & other facilities		1,300,000
		9,800,000
v) 10 percent contingencies		1,000,000
	Total	10,800,000

External infrastructure

i) Roads		1,500,000
ii) Electricity	$200 per bed	200,000
iii) Water	$200 per bed	200,000
iv) Sewerage	$70 per bed	70,000
v) Telecommunications	$30 per bed	30,000
		2,000,000
vi) 10 percent contingencies		200,000
	Total	2,200,000
TOTAL CAPITAL INVESTMENT		$13,000,000

5.6.4 Running Costs.

It is estimated that with a 60 percent occupancy rate, 75 percent of hotel receipts represent outgoings other than interest and capital repayments (Michael Peters 1969, Shankland Cox and Associates 1969). It is assumed that this figure can be applied also to shops, restaurants and other amenities. Hence running costs of tourist accommodation and facilities are equal to 75 percent of total annual tourist revenue = $8.25 mn.

Running costs of infrastructure	-	Dollars
Roads		18,000
Water supply		20,000
Drainage		7,000
Electric power and telecommunication		50,000
	Total	$96,000

Hence total running costs per annum = $8.35 mn

5.6.5 Return on investment -

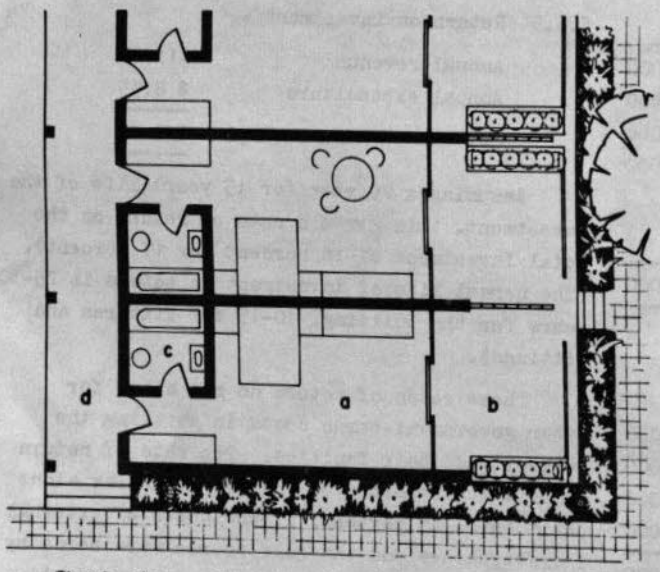
Annual revenue	$11.00
Annual expenditure	$ 8.35
Annual surplus	$ 2.65

Assuming a 20 year (or 15 year) life of the investment, this gives a rate of return on the total investment of 18 percent (or 17 percent). (The normal life of investment in hotels is 25-30 years for the building, 10-15 for fixtures and fittings).

These rates of return do not allow for other government-borne costs in settling the workers and their families. The rate of return to private investors on the hotel complex alone could be 24-25 percent, if the costs of external infrastructure and the golf course were borne by the government. Such a subsidy might be justified as a means of attracting private investors to establish the long term potential.

The rates of return on tourism are examined in Appendix D. Its conclusion should be emphasised. The rate of return is extremely sensitive to the occupancy rate and build up period. As long as the occupancy rate exceeds 40-50 percent, and the development is complete within two years of starting, the estimated social rate of return compares favourably with other development projects in S. Johor.

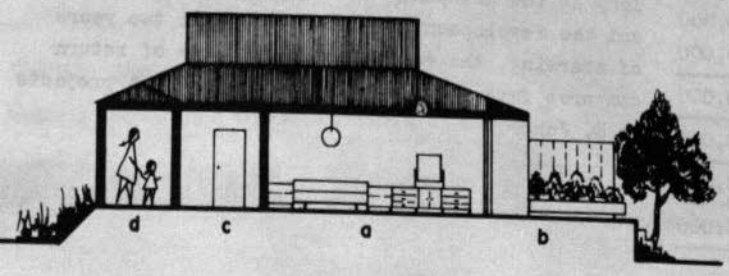
MALACCA HOUSE



Sketch plan — terrace accomodation

a — bedroom
b — patio
c — bathroom
d — covered walkway

Sketch section



5.6.6 Employment

i.	Hotel	@	0.50 workers per bed	=	300
ii.	Chalets	@	0.40 workers per bed	=	160
iii.	Others	@	0.25 x (i + ii)	=	125
			Total		585

(Others include workers in shops, restaurant beaches, golf club, etc. serving tourists but not those serving other local workers and their famil

The assumed job/bed ratios are derived from experience in different parts of the world, with particular reference to current practice in Malaysian and Singapore hotels and holiday residences. They are used to show the possible scale of employment. The assumptions may need to be varied when the market has responded to initial development projects, enabling further research to be undertaken as a basis for long term plannin

Investment per job	=	$22,000
Gross receipts per employee.	=	$18,800 per annum.

5.6.7 Other costs.

These costs and returns do not include accom modation and other facilities for the population employed. It is assumed that they will be paid f out of earnings, although government and/or priva finance would be necessary initially to provide t necessary accommodation and other infrastructure. The number of variables involved in this, e.g. workers per family, employment of large numbers o Malay youths, use of residual employment on land development schemes, makes any estimate at this stage very hypothetical. However, based on 1.4 workers per family, family homes in a village dev lopment scheme, a maximum additional initial inve ment of $1.8 million might be expected. It shoul be noted that substantial youth employment from neighbouring settlements might considerably reduc this figure.

5.6.8 Public/private finance.

Assuming a joint venture between government and the private sector, it is likely that the non hotel costs (a total of $5.3 mn including accommo dation for resident workers) would come out of public finance with the other $9.5 mn being raise by private investment. However, public investmen in the hotel complex itself by agencies such as t National Corporation (PERNAS) or the National Tourist Corporation could assist in getting the project off the ground at an early date (Section 6.1.2)

5.6.9 Job creation and costs.

The total investment costs per job would thus now be of the following order:-

Public finance	$ 8,900
Private finance	$15,900
Total	$24,000

It should be noted that this total is a maximum figure, based on conservative estimates of employment creation, high initial infrastructure development costs, and generous allowances for the costs of population accommodation. In the long term, for large scale development, a reduction in this figure, and particularly the public finance proportion of it, could be obtained should the government wish to limit its investment.

5.7 Detailed Plan Study.

5.7.1 Introduction.

The principles described and illustrated above provide a basis for further study; to attract private investment, and produce practical proposals from which architectural and engineering design and implementation can proceed, a detailed development and investment plan for the initial project is now required.

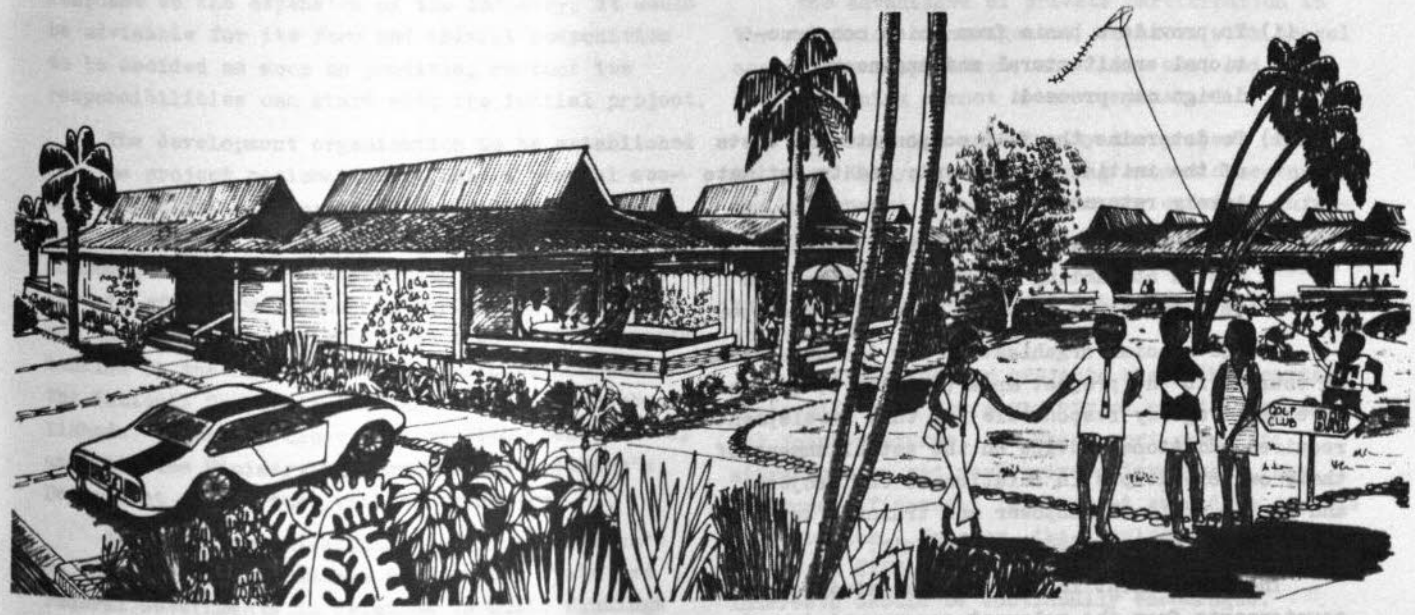
The precise content of the study will depend on its timing, on decisions about development organisations (7.1.1), and on the impact this Report and the Master Plan have on potential private developers. Two possible levels of input are therefore described. The later the study is commissioned, the more extensive the terms of reference will probably need to be.

5.7.2 Source of finance.

Though the study would be commissioned by Federal or State Government or by a government agency, it might be partly financed by international aid (multilateral or bilateral) or by a contribution from a potential developer.

5.7.3 Skills required.

Architectural, town planning, engineering, costing and investment consultants experienced in tourist development projects will be needed. Additional expertise on organisation, manpower, and training will be necessary if more extensive terms of reference are required to assist immediate implementation.



5.7.4 Inputs in man months.

Skills	Low	High
Investment finance	1	1.5
Architecture	2.5	3.5
Quantity surveying (cost analysis)	1.0	1.5
Town Planning	1.0	1.0
Engineering	1.0	2.0
Organisation	-	1.0
Manpower & training	-	2.0
Graphic design	1	1.5
Totals	7.5	13

Charges for report preparation, local surveying, local transport, air fares, accommodation and expenses would be additional to the professional charges for the above man months.

5.7.5 Terms of reference.

The terms of reference would need to allow the consultants to discuss the project with private interests in Malaysia, Singapore and elsewhere as appropriate.

The objective of the study would be to take the Project Report on Tourism and work it up to a detailed plan in conjunction with potential developers. The report would be in such detail as:-

i) To finalise the site for the initial development project by the comprehensive examination of the alternatives defined.

ii) To provide a basis from which constructional architectural and engineering design can proceed.

iii) To determine the full components and costs of the initial development; and to estimate likely returns.

iv) To produce a well illustrated brochure for use in attracting private developers and settling terms with the selected developer.

If the special organisation for the development of tourism in the project area (Chapter 6) or other government agency responsible for this development requires additional advice on the establishment of their own operations in relation to the project, and on the critical manpower and training aspects, these should be included in the study.

The involvement in the detailed study of counterparts from the relevant government department should be arranged, so as to secure the full understanding of the plan that will be essential to its implementation, and to provide valuable experience and training.

CHAPTER 6

IMPLEMENTATION

6.1 Development Organisations & Agencies

Two levels of organisation are required for the development of tourism in the project area:

i) Overall policy preparation & implementation
ii) Project implementation - Hotel, weekend houses, recreational enterprises, etc.

6.1.1 Overall policy organisation.

A special organisation will be needed if the rapid growth of tourism is to be achieved, if high returns to State and Federal Governments are to be secured, together with the desired high level of Malay participation in management, professional and entrepreneurial functions. The organisation should be responsible for promotion, monitoring and research; for attracting and negotiating with developers; and for attracting and settling labour and assisting in training arrangements.

It will have to have the State Government's confidence and support in developing the State's interest in the project - the land, and to integrate the development of the resort into the wider needs of national and State-wide planning for tourism.

While the organisation will have to grow in response to the expansion of the industry, it would be advisable for its form and initial composition to be decided as soon as possible, so that its responsibilities can start with the initial project.

The development organisation to be established for the project regions should have a special section to fulfil some or all these functions. The State's interests would be represented by the State Economic Development Corporation (SEDC). However certain of the functions, in particular investment and implementation, might in part be advantageously handled by the National Tourist Corporation and/or the National Corporation (PERNAS) already established. Certainly close liaison with these bodies, and with the Ministry of Commerce and Industry's Department of Tourism, will be necessary.

The final organisational decisions will have to result from discussions between the State and Federal Governments in relation to their findings on the consultants' report on national tourist planning and development now being considered, and upon the structure of the development organisation for the project regions.

The overall policy organisation should consider the appointment of experienced managing agents for the first few years to get the development programme under way, and to train local professionals to take over responsibility. The organisation should be free to appoint consultants and other advisors as necessary.

6.1.2 Project implementation.

The initial project should be started as soon as possible, and needs special expertise, contacts, and a lot of government money. There are three alternatives:-

(i) All government (State or Federal) - advantages of lower risk premium, but it will need, at the very minimum, managing agents.

(ii) Joint venture, with the private sector providing the expertise and contacts, the government providing some capital (say 50 percent of the total of about $15 mn). Advantages are that more expertise would be available and less government money would be at risk.

(iii) All private - the private sector is unlikely to put up the $15 mn required without substantial incentives.

The advantages of private participation in the provision of management, contacts with travel agents, tour operators, air lines etc. and in staff training cannot be overemphasised.

However, the opportunity the project presents to bring Malays into a leading economic sector, the government role in developing external infrastructure, clearing land, and providing associated facilities, and the underwriting probably necessary for an initial scheme would suggest that a joint venture is appropriate.

In time, further projects along the coastal strip will call for a variety of public, private and joint ventures. As the resort grows and attracts more and more private investment, the government financial involvement should be capable of reduction. However, the involvement of such bodies as SEDC, MARA, PERNAS and other local interests should be continually encouraged.

6.2 Financial Incentives and Sources

The national realisation of the importance of tourism as a growth industry has resulted in considerable reassessment of the relevant incentive devices. The arrangements for the PATA

conference, the establishment of the National Tourist Corporation, and the appointment of consultants to advise on future national planning have marked the commencement of a realistic programme of encouragement to investment such as the granting of 'pioneer' industrial status to tourism enterprises. No special steps are at present thought to be necessary for the development of the Tanjong Penggerang coast, apart from those being evolved for the whole country. As the rates of return appear attractive, private finance from large banks to developers for individual schemes should become progressively available as the resort develops.

However, the necessary extent of government participation both in the initial project and in the development of the resort as a whole demand considerable public finance.

The size and complexity of tourist developments entail detailed economic, technical and town-planning feasibility studies to ascertain the viability of proposed projects for international sources of finance. Loans or grants for such feasibility studies can be made available under the United Nations Development Programme or the technical assistance programmes of individual countries.

The following international institutions already play an important role in financing tourism investment: the International Bank for Reconstruction and Development (IBRD), and its associates, the International Finance Corporation (IFC) and the International Development Association (IDA).

The terms and conditions of IBRD loans are summarised below:-

(i) Feasibility studies have shown that the project will be economically viable.

(ii) The borrowing country is in a position to repay the loan.

(iii) The project will be of such benefit to the economy as to justify the borrowing of foreign exchange.

(iv) The project itself is technically feasible and properly designed.

The International Finance Corporation's aim is to further economic development by encouraging the growth of investment by private enterprise, particularly in the less developed areas without governmental guarantee or intervention, on the following conditions:-

(i) The proposed project should be located in a member country and be sponsored by the private sector.

(ii) The local equity capital has to be at least equal to the amount of the loan

(iii) After financing, the assets of the project are in excess of $1,500,000.

(iv) The investment be a minimum of $300,000

(v) The investors should put up at least 40 percent of the capital required in a new enterprise.

The IFC encourages proposals combining private investment from local and foreign sources. It will seek private financial capital to supplement its own investment. The duration of its loans varies from seven to fifteen years, and usually amortisation of the loan is deferred until the project is operating on a profitable basis.

The International Development Association finances projects which make important contributions to the development of an area, whether or not the project is viable. Credit will not be provided by the IDA if it is available from private sources, or could be provided by loans of the type advanced by the IBRD.

There are also institutions operating at the regional level such as the Asian Development Bank (ADB) set up to attract funds, to finance special projects and to promote regional cooperation.

Additionally, aid packages from various countries can be made available, which may include low interest rate finance.

CHAPTER 7

MANPOWER AND TRAINING

7.1 Tourism

As part of the development of tourism, practical training courses in hotel management and operation will be necessary. Part of the training should be in special hotel schools. Training is a continuous process which secures the greatest benefit from the recruitment of the proper calibre of employees at the outset. While the total number of probable jobs for the initial project has been estimated at 600, the proposed detailed study should consider carefully the number and types of personnel required.

The skills required will include managers, waiters, maids, shop assistants, cooks and butchers, kitchen hands, cleaners, barmen, telephonists, cleaners, amahs, boatmen, office workers, groundsmen, gardeners, commissionaires, security staff, electricians, plumbers, carpenters, storemen, travel agents, guides, drivers, vehicle maintenance and repair workers and others.

Based on the medium employment projection given in chapter 4, the estimated labour force required for the tourist industry in Tanjong Penggerang is given in Table 7.1.

TABLE 7.1 Total Trained Manpower in Tourism

	1975-6	1980	1985	1990	Percent
Management	70	310	1200	2400	12
Supervisory	180	780	3000	6000	30
Craftsmen	300	1300	5000	10000	50
Auxiliary	50	210	800	1600	8
Total	600	2600	10000	20000	100

Allowing for a 10 percent staff turnover rate, the annual training requirements will rise from a total of 320 in 1975 to 1,100 in 1980, 2,150 in 1985, and 4,250 in 1990, split according to skill categories given as percentages in table.

Because the major market is Singapore, the demand for Chinese service and food may limit Malay involvement to 40-60 percent. Nevertheless, the tourist resort will provide an excellent opportunity for introducing Malays into commercial activities. Initially a special recruitment campaign among young Malay men and women with the necessary educational qualifications is suggested, to be followed by a training course at a vocational school (MARA Institute of Technology, for example.) It would also be advisable to consider the use of the extensive training facilities available and being developed in Singapore. The attraction of private interests experienced in staff training is also very important. If the initial development is a success and sets off a chain reaction of other developments, it may be possible and advisable to establish a school in the Tanjong Penggerang resort.

Courses at the special schools in a number of European countries for senior hotel management, and such specialists as chefs, could assist in training the right calibre of professional personnel. Assistance from various countries and international agencies is available, as grants and parts of aid agreements.

In the associated retail and other small scale services, and even in the long term for hotels, initial ownership and management by such bodies as MARA and PERNAS with eventual handovers to proven staff should be considered as a method of introducing young Malays into entrepreneurial positions in the industry.

Tourism with its demand for services can provide part-time and also full-time jobs for many previously inexperienced staff. Access to such opportunities from the existing population of Penggerang, and from the new residents of the villages in the agricultural development areas should be encouraged.

7.2 Construction

The necessary building labour force for the tourist resort might be expected to build up from 4-600 for the initial scheme to 2-3000 in the later plan periods. It is suggested that an advertising campaign to attract semi-skilled and unskilled labour to work on the initial project should take place in Malacca and other west coast areas, where the sociological studies have shown that in areas of deprived economic and social circumstances, there are apparently considerable reserves of building skills - particularly in carpentry and wooden construction. While an initial residential construction camp will be required, those attracted should be able to bring their families, and be offered the same opportunities in terms of incomes, employment and residence as those attracted to agricultural development areas. The agency set up to develop the project regions, or MARA, may be capable of starting a contractual agency for constructing the initial project.

APPENDIX A

APPENDIX A

POTENTIAL HOLIDAYS FROM SINGAPORE 1970-1990

1 Singapore Residents

Figure 1 indicates the order of correlation to be expected between average annual national income per capita and the proportion of the population in an area likely to take a major holiday.

In 1970 25 percent of the present population of Singapore might be attracted to take at least one major holiday per year.

25% x Population (2 million) = 500,000 holiday takers

Assuming 10 days holiday per annum = 5 million overnight stays.

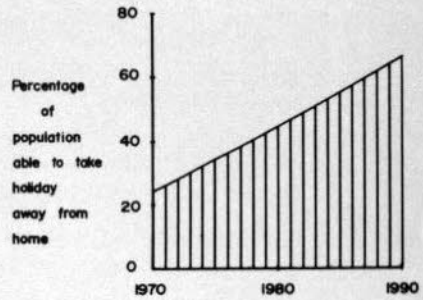
In 1990 the Singapore population is likely to have reached 2,750,000; of these over 66 percent are likely to take a holiday.

66% x 2,750,000 = 1,816,000

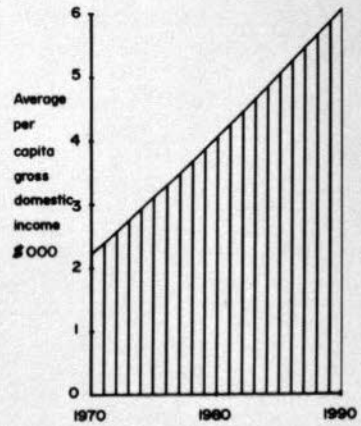
i) Assuming average 10 days per annum = 18 million overnight stays

ii) Assuming average 20 days per annum = 36 million overnight stays.

TOURIST POTENTIAL FROM SINGAPORE POPULATION



FORECAST GROSS PER CAPITA INCOME (SINGAPORE)



2 International Visitors to Singapore

The following table (Table 1) shows how the international tourist trade in Singapore and Johor might be expected to build up.

TABLE 1

International Tourists/Singapore 1969

Year	Visitors	Average Stay	Overnight stay	Proportion Recreation Orientated	Holiday Overnights
1969	300,000	3/4 days	1.0 million	55 percent	550,000

Growth Estimate of Holiday Overnights

1970	605,000
1975	974,000
1980	1,570,000
1985	2,530,000
1990	4,070,000

Note: Based on 10 percent growth per annum. Bookings for next four years, and over the last few years indicate a 25-30 percent per annum growth rate, and an ever increasing proportion of the total trade going to longer stay and package deal tourism. Thus 10 percent per annum may well be a conservative estimate.

APPENDIX B

APPENDIX B

PRELIMINARY INVESTIGATION OF THE TANJONG PENGGERANG COAST

The only beach accessible by road from Johor Baharu is at Jason Bay. This is overlain by substantial deposits of silt and the water itself is frequently clouded by suspended solids from the S. Sedili Kechil and S. Sedili Besar. The hinterland is swampy and provides no reasonable areas of developable land. The beaches south from Jason Bay to Tanjong Siang are pleasant with clear water and white or golden sand, but for early development, they are inaccessible and would incur high infrastructure costs.

The beaches of Tanjong Penggerang's eastern coastline south from Tg. Siang are generally very clean with gently or moderately sloping profiles and with a minimum of 25 yards (maximum 50 yards) exposed sand at high tide. The water as far south as Tanjong Penawar is very clear. Detailed surveys may determine areas of more extensive fish life or coral than were observed. There is considerable variety in sand texture and colour. Dark fine grained sand being extensive immediately to the north and south of Tanjong Lompat, and white, light grey or golden coarse grained sand prevailing elsewhere. Perhaps the most varied and beautiful bay along the coast is between Tanjong Siang and Tanjong Balau, with clear water, light grey fine sand, and gently sloping beach backed by casuarina trees. The most sheltered bay is between Tanjong Balau and Tanjong Lompat. Other extensive areas of sheltered water lie to the south of Tanjong Siang and Tanjong Penawar respectively. The golden sand beaches between Tanjong Lompat and Tanjong Penawar have wide development possibilities, but over the northern section the slope of the beaches is severe (approximately 1/5). Extensive area of shells can be found on the beaches near the headlands, where small beaches of sand and shingle occur among the rocky foreshores.

The hinterlands are generally suitable for building, with attractive possibilities on the headlands. Between Tanjong Penawar and Tanjong Punggai the beach is very clean but the water is less clear. Water clarity is poor, off the remaining extensive beach from Tanjong Punggai to the South Eastern tip of the peninsular which is accessible from the existing road serving the settlements of the south coast.

Although the peninsular is in an area of high rainfall (100"-130" per annum), the narrow coastal strip due to micro climatic factors probably enjoys a reduced rainfall, and increased average sunshine hours than areas further inland. Research into the local micro climate of the strip and insect control would be advisable to assist in future detailed planning.

An initial assessment of the beaches accessible for development covering cleanliness, water clarity, sand colour and texture, shelter, currents, slope and landscape character together with their hinterland, graded their development potential into two groups:-

Class I (very good) - Nos. 1, 2 and 3
Class II (good) - Nos. 4 and 5

1. Tanjong Siang - Tanjong Balau (southern part only used in calculations for table 1)
2. Tanjong Balau - Tanjong Lompat.
3. Tanjong Lompat - Tanjong Penawar.
4. Tanjong Penawar - Tanjong Setajam.
5. Tanjong Setajam - Tanjong Punggai.

TABLE 1

Beach Quality & Capacity: Penggerang Resort Area

Class	No. & Location	Beach (1) Length in yards	Beach (1) Width in yards	Beach (1) Sq. feet in '000	Beach (1) Persons	Behind Beach (2) '000 Sq. ft.	Behind Beach (2) Persons	Total Persons
Very Good	1. Tg. Siang - Tg. Balau	1,200	40	432	4,320	360	1,800	6,120
	2. Tg. Balau - Tg. Lompat.	3,600	40	1,296	12,960	1,080	9,400	22,360
	3. Tg. Lompat - Tg. Penawar	9,000	20	1,600	16,000	2,700	13,500	29,500
	Total	-	-	3,328	33,280	4,080	24,700	57,980
Good	4. Tg. Penawar - Tg. Setajam	8,800	20	1,584	15,840	2,640	13,200	29,040
	5. Tg. Setajam - Tg. Punggai	1,600	30	432	4,320	480	2,400	6,720
	Total	-	-	2,016	20,160	3,120	15,600	35,760
Totals		-	-	5,344	53,440	7,200	40,300	93,740

Notes:- (1) Allowing 100 sq. feet per person at high tide.

(2) Allowing 200 sq. feet per person for first 100 feet behind beaches.

APPENDIX C

APPENDIX C

LAND AND WATER REQUIREMENTS

1 Tourist

Assume development would take place over the beach hinterland area - say a 12 mile strip which could hold development over a width of ½ mile (to give ready access on foot to the beaches) - say 6 square miles in total.

Assume half of this area only would have buildings (this allows the retention of many trees and examples of original jungle etc.) - Area to be covered by buildings = 3 square miles, say 2,000 acres.

Assuming only low density chalet and hotel development at 20 beds per acre:-

Building Capacity - 40,000 bed spaces

In addition there will be adequate space for at least three golf courses (18 holes) along the coast, and others inland.

2 Resident Population

Assuming a total employment in tourism of one worker for every two tourists - employment could be 20,000. Assuming two workers per family this represents 10,000 families @ 6 persons per family = 60,000 persons. Assuming 40 percent supporting service population, 100,000 people may need to be housed in or near the coastal belt.

Tourist Resort - Urbanisation - Land Reservation

1. Maximum population	100,000
2. Resident in S Tanjong Penggerang and inland villages (say 25 percent)	25,000
3. Population to be housed in resort area	75,000
4. Population resident in tourist coastal enterprises.	15,000
5. Maximum population to be housed in adjacent urban areas to coastal enterprise	60,000
6. Urban density (gross)	15 persons per acre
7. Maximum long term acreage reserve.	4000, say 6 sq. miles
8. Short term reserve (33 percent)	2 sq. miles

3 Water Supply

Assume: 40,000 tourists beds @ 150 gallons/day
Peak requirement = 6,000,000 gallons/day

Allow 60,000 residential population @ 50 gallons/head/day
Peak requirement = 3,000,000 gallons/day

Total peak water requirement = 9.0 mgd
say 10 mgd maximum

This quantity of water can be supplied from the catchment areas of the upper reaches of the S. Lebam. The reserved areas should remain as forest, and might be stocked with game (deer and wild pig) and kept as a controlled area which could serve as an additional attraction to tourists.

APPENDIX D

APPENDIX D

RATES OF RETURN IN TOURISM (INITIAL PROJECT)

	Occupancy Rate(1)		
	75 percent	50 percent	60 percent
1. Income/Expenditure (m.p.a.)			
Income(1)	$12.9 mn	$9.1 mn	$11.1 mn
Expenditure(1)	$ mn	$ mn	$ mn
- Fixed	4.2	4.2	4.2
- Variable	4.8	3.5	4.2
- Total	9.0	7.7	8.4
Surplus	3.9	1.4	2.7

2. Capital Investment	$mn p.a.(2)
Hotel rooms	9.4
Golf course, restaurants, etc.	1.4
Roads (excluding access)	1.7
Other infrastructure (water, etc.)	0.6
Other (housing, etc.)	1.8
Total	14.9

(1) From Appendix B Table 1

(2) Allowing 10 percent for "engineering, supervision and contingencies".

3. Rates of Return

(i) - to the private investor - capital investment is assumed to be $9.4 mn. The build-up to the occupancy rates in the paper is likely to be gradual, but, for simplicity, a 2-year lag is assumed between investment and the rates of occupancy assumed. The rate of return will vary enormously according to this lag and the occupancy rate. The sensitivity of the rate of return to the occupancy rate is shown below:-

Occupancy Rate (percent)	Interest Discount rate (% p.a.)	Present values ($mn) in 1972		
		Surplus of income over expenditure(1)	Capital expenditure(2)	N.P.V.
75	10	26.3	8.0	+18.3
	20	13.0	7.2	+ 5.8
	30	7.6	6.4	+ 1.2
50	10	9.5	8.0	+ 1.5
	20	4.7	7.2	- 2.5
	30	2.7	6.4	- 1.3
60	10	17.7	8.0	+ 9.7
	20	8.6	7.2	+ 1.4
	30	5.2	6.4	- 1.2

(1) Over years 3-20 (1974-91)

(2) Capital expenditure is assumed to be spread equally over 1972 and 73 (i.e. $4.7m. p.a.).

The rate of return to the private sector (or public agency) with the Government bearing the 'infrastructural costs' varies from about 12 percent p.a. with an occupancy rate of 50 percent to over 30 percent p.a. with an occupancy rate of 75 percent. On the basis of the occupancy rate assumed in this report, the rate of return is about 23 percent p.a.

(ii) to the Malaysian economy

Assumptions:-

(i) All the tourists are assumed to be foreigners (Singaporeans and others) who would not otherwise have spent this money in Malaysia.

(ii) Total capital expenditure attributable to the tourist complex is assumed to be $13.1 mn. (Housing of workers is not included).

(iii) This is assumed to be spent equally in years 1 and 2.

(iv) Employment is assumed to be 585. The wage bill (excluding management) is assumed to be 585 x $200 per month (average) or about $1.4 mn. per annum or about 15-20 percent of the running costs on the basis of the occupancy rates assumed in the paper. Ten percent of the remaining running costs are assumed to consist of taxes and duties.

(v) The tax content in the costs is therefore about $0.7 mn. The 'social' cost of labour assuming a shadow wage of $40 per month is about $0.3 mn and therefore the cost of labour should be reduced by about $1.1 mn per annum. The "resource" running costs are therefore $8.4 mn less about $1.8 mn or about $6.6 mn or about 80 percent of running costs at commercial values.

On these assumptions, the social rates of return are therefore;

Occupancy Rate (percent)	Interest Discount rate (% p.a.)	Present values ($mn) in 1972		
		Surplus of Income over Expenditure(1)	Capital Expenditure	N.P.V.
75	20	19.5	9.8	+ 9.7
	30	11.4	8.9	+ 2.5
50	10	21.0	11.2	+ 9.8
	20	10.4	9.8	+ 0.6
60	10	30.6	11.2	+19.4
	20	15.0	9.8	+ 5.2
	30	8.8	8.9	- 0.1

(1) $5.8mn, $3.1 mn and $4.5 mn p.a. for the 75%, 50% and 60% occupancy rates respectively.

(iii) The Social and 'financial' rates of return are compared below:-

Occupancy Rate (percent)	Rates of return (% p.a.)		
	Hotel investment only (Financial)	All investment (Financial)	(All investment) (Social)
75	30	26	30
50	12	7	21
60	23	17	30

The rate of return is therefore very sensitive to the occupancy rate (and is also sensitive to the period of build-up to the assumed occupancy rate; if the build-up is slow the rate of return drops dramatically). The break-even occupancy rate (to give a 10 percent per annum financial rate of return on the hotel investment only and 15 percent per annum social rate of return on all investments) is about 40 percent.

Tourist Income - Accommodation

	Hotel			
	Category I	Category II	Category III	Total (Average)
Rooms	100	200	100	400
Beds	200	400	400	1,000
Dollars per bed per day	20	15	12	15(1)
Occupancy Rate				
75% - Beds (thousand p.a.)	55	110	110	275
- Income ($mn p.a.)	1.1	1.7	1.3	4.1
50% - Beds (thousand p.a.)	37	73	73	183
- Income	0.7	1.1	0.9	2.7
Assumed in this paper(2) - Beds (thousand p.a.)	51	102	73	226
- Income ($mn p.a.)	1.0	1.5	0.9	3.4

(1) Equivalent to about $37 per room

(2) 70 percent for hotel beds, 50 percent for chalet beds.

Tourist Income - Food and Other

	Hotel		Day-Trippers	Total
	Food	Other		
Dollars per person per day				
- Category I	15	20	-	35
- Category II	15	10	-	25
- Category III	12	8		
Occupancy rate				
75% - Tourist Days (000)	275	275	375	-
- Income ($mn p.a.)	3.8	3.1	1.9	8.8
50% - Tourist Days (000)	183	183	375	-
- Income ($mn	2.5	2.0	1.9	6.4
Assumed in the paper - Tourist Days (000)	226	226	375	-
- Income ($mn p.a.)	3.2	2.6	1.9	7.7

Tourist Income and "Operating" Expenditure ($mn p.a.)

	Income			"Operating Expenditure"[1]		
	Accom-modation	Food & Other	Total	Fixed	Variable	Total
Occupancy Rate						
75 percent	4.1	8.8	12.9	4.2	4.8[2]	9.0
50 percent	2.7	6.4	9.1	4.2	3.5[2]	7.7
Assumed in the paper	3.4	7.7	11.1	4.2	4.2	8.4[1]

(1) Operating expenditure is estimated in the main paper as being 75% of total income or about 75% x $11.1mn = $8.3mn, or about $8.4mn. When the operating costs of infrastructure are included. 50% of the $4.8mn operating expenses are assumed to be fixed regardless of the occupancy rate.

(2) Assumed to be $\frac{\$4.2mn}{\$7.7mn}$ = 55% of "Food and Other" income.

APPENDIX E

APPENDIX E

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