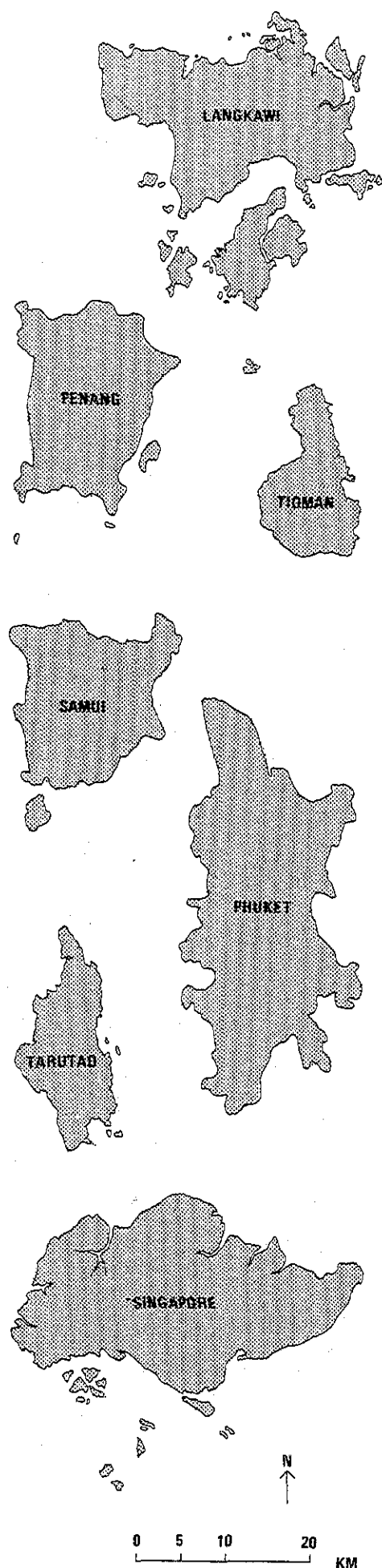


## **CHAPTER 4 DEVELOPMENT GUIDELINE IN TOURISM CLUSTER**

- 4.1 PHUKET CLUSTER**
  - 4.1.1 POTENTIAL AND CONSTRAINTS**
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- 4.2 SURAT THANI CLUSTER**
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- 4.3 SONGKHLA/HAT YAI CLUSTER**
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## 4.1 PHUKET CLUSTER



In a broad meaning, tourism development in the Phuket cluster is thought to consist of two types: beach resorts and town tourism. Regarding the beach resort development, it is important to maintain the resorts so as to be compatible with international tourist requirements and avoid a disorderly development pattern. Although it is the fact that Phuket is endowed with potential enough to become an outstanding international beach resort with highly competitive quality in a relatively short period, a significant problem remains on backwardness of development of infrastructures sufficiently supporting the tourism activities/industry. Much effort should be made on this aspect, associated with the environment management policies with a long-term perspective. For further tourism expansion, the Phuket vicinities such as Phang Nga and Krabi should be incorporated into the entire Phuket tourism area by providing a proper transportation system. On the other hand, town tourism is recommended to be more encouraged by revitalizing the existing historic/traditional districts, as well as by providing with more convenient tourist services. Town tourism would be important in order to make the Phuket tourism more versatile.

### 4.1.1 POTENTIAL AND CONSTRAINTS

#### 1) GENERAL

Phuket is located off the west coast in the Kra Isthmus of Thailand lying between 7° 30' and 8° 10' latitude north and 98° 15' and 98° 30' longitude east.

Phuket is the largest island in Thailand. It has 50 km in length from north to south, and a spine of wooded hills runs with some over a thousand feet high (Highest point 527 m). The width of the island varies, due to with many deep and beautiful bays. The total area of the island is 550 sq. kms. Adding the surrounding off-shore islands, the total area is about 600 sq. km.

Table 4-1-1 shows a comparison of size of the outstanding islands where economic and tourism activities are predominant. The size of Phuket island is the almost same as that of Singapore.

TABLE 4-1-1 COMPARISON OF SIZE OF RESORT ISLAND

Manhattan (U.S.A.)	52	sq.km
Hong Kong Island	94	sq.km
Samui Island (Thailand)	250	sq.km
Penang (Malaysia)	266	sq.km
Isle of Wight (U.K.)	382	sq.km
Barbados (W. India)	432	sq.km
Phuket	550	sq.km
Corfu (Mediterranean)	595	sq.km
Singapore	621	sq.km
Tahiti	1,045	sq.km
Oahu (Hawaii)	1,542	sq.km
Bali (Indonesia)	5,582	sq.km

Phuket has a population of approximately 168,000 (1987 estimate), of which 50,000 - 60,000 lives in the Phuket municipal area. 60% of the people are Thai or Thai-Chinese Buddhists.

Per capita income of Phuket province accounts for approximately US\$3,000 per annum which is the second highest in Thailand. The economy of Phuket is based mainly on agricultural and mining related industry, but fishery and its processing industry is also noted. The Phuket harbor accommodates approximately 350 industrially-equipped fishing boats having employment of around 10,000 people.

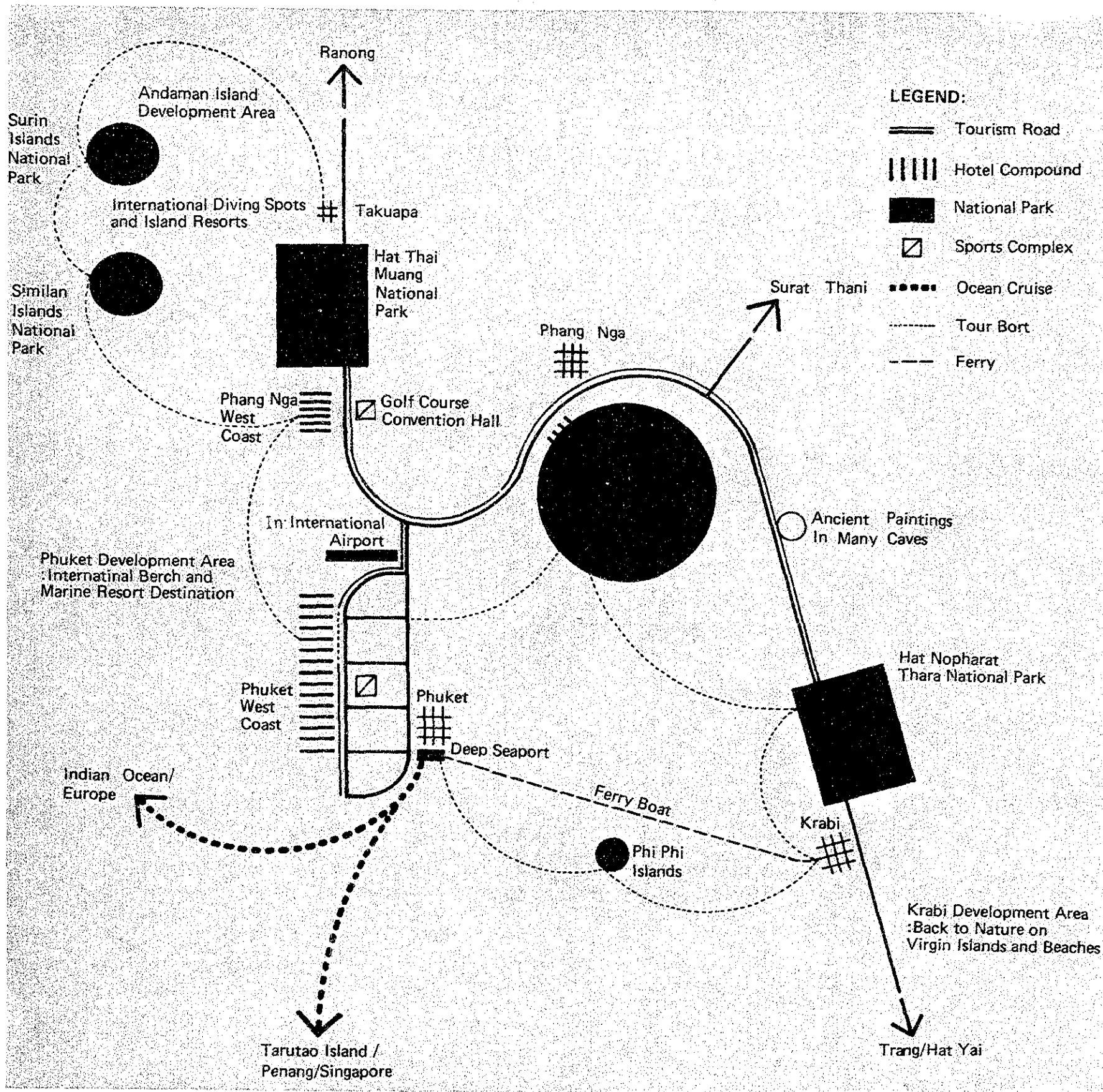
The major land use is agricultural which includes rubber plantations, coconut plantations, rice fields and orchards. Along the estuary areas, mostly on the east coast of Phuket facing the Phang Nga bay, are extensive mangrove forests. Mountain forests or tropical evergreen forests are scattered on the mountain areas. Villages, urban areas and tin mines are interspersed over the island.

The land use of Phuket is summarized in Table 4-1-2. Tin mining operations occupy much of the remaining surface area.

TABLE 4-1-2 PRESENT LAND USE OF PHUKET

	Area (ha)	Share (%)
Rubber	15,000	27.0
Coconut	5,000	9.0
Forest	4,400	7.2
Orchard	3,000	5.0
Rice paddy	2,200	3.7
Pineapple	800	1.4
Durian	500	0.9
Cacao	90	0.2
Palm Oil	70	0.1

FIG. 4-1-1 TOURISM STRUCTURE OF PHUKET



## 2) PHYSICAL POTENTIAL OUTLOOK

The environmental quality and the natural beauty of the Phuket cluster offer significant attractions for foreign and domestic tourists. The excellent beaches, the coral, the unique islands, the National Parks and Forests and the spectacular scenery are the major resources which offer great potentials. The physical potential in the Phuket cluster are assessed as follows:

### a. Northern Phuket

Northern Phuket is the area where rubber trees and Phuket's typical trees are most abundant. This area contains two National Parks which should be integrated into the tourism circuit. Northern Phuket is the gate-way of the Phuket Island for visitors coming by air and by land. It is necessary to stage-manage the "introduction" of the Phuket Island in tourism promotion. In this area, an environmental preservation zone, productive green zones and tourism development zones are located side by side. The primary theme for this area is to develop, keeping a harmony with the environment of each zone.

### b. Central Phuket

The East coast of Central Phuket consists of marshes with mangroves and offers little possibility of being developed as a seaside resort. A number of abandoned tin mining pits are found and present unsightly scenes because of no care of them. On the West coast, three hotels with an international standard have opened or are under construction. The southern part of the Kamala beach and the north of the Bang Tao beach remain to be developed. These areas may be able to turn into tourist resorts with high quality, if these areas are developed in a planned manner. The Ton Sai waterfall and the Wat Phra Thong have great possibility to become tourist attractions in addition to beaches in Phuket.

c. Southern Phuket

Southern Phuket is the most popular area in the island. Several hotels near the beaches were started to be constructed years ago and this area is now the center of international resorts. The beach development at Patong has almost reached a saturation point. Development of the hinterland has emerged and is likely to proceed more intensively in near future. Development has progressed so rapidly that infrastructure construction by the public sector cannot keep pace with it. Hence, it is necessary to urgently solve the problems such as seawater pollution and muddy roads.

The city of Phuket is recommended to be developed so as to have better urban tourism facilities. The project for conservation of historic buildings should be provided in collaboration with the Department of Fine Arts. It is desired to integrate the efforts toward building an attractive city with a purpose of promotion of urban tourism.

d. Phi Phi Island in Krabi Province is located at 35 km from Phuket. Unless high speed transport is introduced, the distance may be a great hindrance to any effective development of the island. There are two beautiful beaches on the main island, and the northern one is so well sheltered that it is serviceable in all weather conditions. The hinterland is not particularly large in capacity but small scale development is possible. The southern small island with the large cave, an enclosed lagoon, and a rocky cliff suitable for rock climbing, is potential to provide a part of an itinerary for exclusive class tourists. Some small scale accommodation facilities exist to cater to the special interests in ocean-activities.

e. Phang Nga Bay is endowed with uniquely shaped islands and limestone caves both on land and on some of the islands, and it provides a most exotic view to tourists from cruise boats. This should be promoted as a one-day sight-seeing trip destination for tourists in Phuket. However, the delicate natural scenery should be carefully protected and it is not desirable to carry out any work to alter the existing beauty. The pier facility for boarding and unboarding of passengers should be improved and the catering facility at Panyee Island should be strengthened for the convenience of tourists.

f. Phang Nga West Coastal Area facing the Andaman Sea is assessed to be another potential area for future tourism development. The area has a straight coastal belt. But the quality of water and sand is superior, and the width of the beach is also acceptable for beach resort development. The immediate interior space along the beach and the hinterland space are a flat delta with small rubber plantations, paddy fields and other agricultural land as well as a number of tin mines yet being rehabilitated, lagoons, rivers and green open land. Further behind the area are mountains on all sides, with some part being relatively near to the beach. These conditions bring out a great potential for resort development.

g. Krabi Province has a lot of cultural tourism assets. Although some of the unique rock formations and cave paintings of Phang Nga Bay extends down to the coast of Krabi, the distance from Phuket limits its inclusion as part of tourist destinations for visitors in Phuket. A number of projects is now scrutinized separately under a different development project. However, such separate development is not recommended on a short term basis. The development and investment effects on Phuket should benefit Krabi tourism as well.

### 3) ENVIRONMENTAL ASPECTS

The environmental condition of Phuket Island is still keeping good quality, though some parts have rapidly been developed in last decade. However, special attention should be paid to preservation of environmental resources. Regarding this aspect, the following current movements are noted:

● Patong Beach

- At Patong Beach, the speed of development is beyond the expectation and so fast that provision of the infrastructure such as roads and sewage facilities have not caught up with the increase in hotels and other resort facilities development.
- The degree of conflicts with tin mining activities has become low due to its market recession. The mining sites onshore becomes less active, and the dredgers are now fund only offshore at Bang Tao Beach.
- A hotel is likely to decrease its number of rooms to below 80 in order to avoid from the environmental impact assessment procedure. Consequently, the quality level of the environment is not subject to the governmental control.

● Tin Mining

Meanwhile, a solid waste management should be taken into account as a crucial environmental issue. The cleaning service office in Department of Public Health of Phuket Municipality is responsible to clean up 12 sq. km of the municipal area and 8 sq. km outside of it. The total quantity of solid waste collected in the municipal area is around 150 cbc. m per day. Its composition and relevant data are summarized as shown in Table 4.1.3. There exist several problems on this aspect as follows:

● Solid Waste Management

- People living along rivers throw solid waste into rivers, thereby causing water pollution.
- Small rubbish bins provided at public places are often full and surrounded by pile of rubbish.
- Collection trucks can hardly enter the narrow lanes in congested commercial areas.
- Illegal dumping of solid waste on open areas is causing unhealthy environment.
- Inappropriate management of disposal site is causing ground water contamination, natural fire, generation of insects and rodents.

In order to solve the above problems, definitely functioning system/regulations for environmental management are needed to be established as soon as possible. This is recommended to involve the following issues:

- a. No alteration in shore line which would increase its erosion shall be permitted.
- b. Individual sewage disposal systems should be provided by hotels, bungalows and buildings along the beach.
- c. Solid waste should be collected frequently so that it is not scattered on the ground.
- d. Apply the environmental impact assessment (EIA) procedure to the major projects and the preliminary EIA to the minor projects.

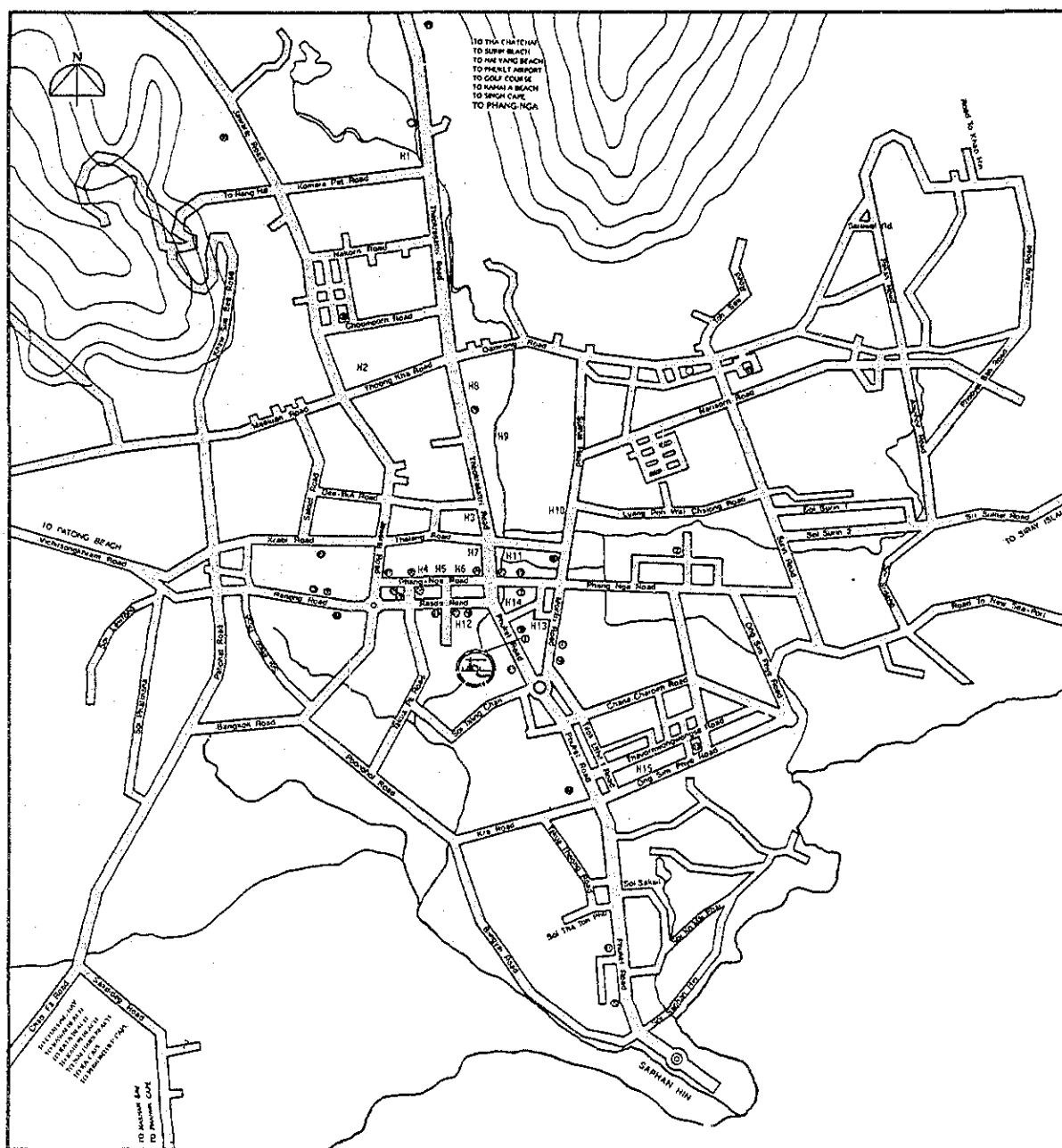
e. Provide a solid waste management system including:

- Prohibit illegal dumping of solid waste on open areas or into rivers.
- Provide sufficient size of bins with lids.
- Proper collection method should be studied for narrow streets.
- The sanitary landfill should be conducted to prevent water contamination and other environmental deterioration.
- Collect the dumping fees for receiving waste from resort hotels outside of municipality.
- Use tailing lots for disposal sites with proper method so that it does not cause impact on environment.

**TABLE 4-1-3 SOLID WASTE MANAGEMENT IN PHUKET**

Components and other items	Percent in weight. etc.
Paper	25%
Cloth	20%
Garbage	43%
Plastics and Rubber	7%
Metal	3%
Others	2%
Total	100%
Bulk Density	250 kg/qbm
Moisture Content (Dry Season)	40%
(Monsoon Season)	70%
Population in 1983	45,409 persons
Unit Amount Per Capita	830 g/day
Collection Truck	13 trucks
Disposal Site at Sapan Hin	250 rai (0.4 sq.km)

**FIG. 4-1-2 MAP OF PHUKET TOWN**



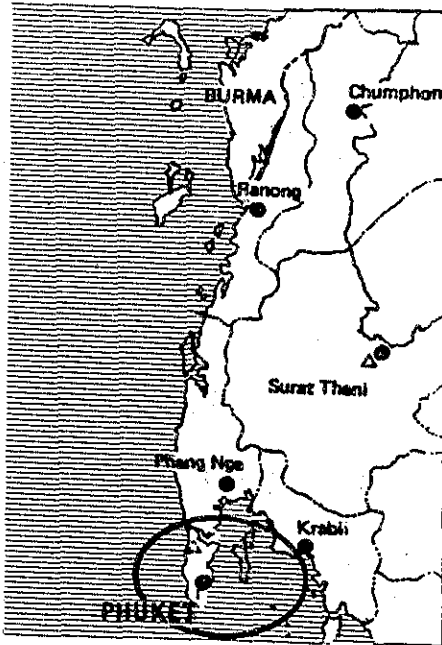
**legend**

- 1 TOURISM AUTHORITY OF THAILAND
  - 2 BUS TERMINAL
  - 3 THAI AIRWAYS COMPANY
  - 4 THAI AIRWAYS INTERNATIONAL
  - 5 IMMIGRATION OFFICE
  - 6 POST & TELEGRAPH OFFICE
  - 7 PUBLIC TELEPHONE CENTER AND TELECOMMUNICATION CENTER
  - 8 PHUKET PROVINCIAL POLICE STATION
  - 9 TOURIST POLICE OFFICE
  - 10 WACHIRA HOSPITAL
  - 11 PUBLIC LIBRARY
  - 12 MARKET & LOCAL BUS STATION
  - 13 TOWN HALL
  - 14 MISSION HOSPITAL
  - 15 SIRIROJ HOSPITAL
  - 16 PHUKET RUAM PAET HOSPITAL
- BANK**
- 17 ASIA BANK
  - 18 BANGKOK METROPOLITAN BANK
  - 19 SIAM COMMERCIAL BANK
  - 20 ADUYTHAYA BANK
  - 21 LAME THONG BANK
  - 22 GOVERNMENT SAVING BANK
  - 23 UNION BANK OF BANGKOK
  - 24 STANDARD CHARTERED BANK
  - 25 BANGKOK BANK OF COMMERCE
  - 26 BANGKOK BANK
  - 27 KRUNG THAI BANK
  - 28 THAI FARMER BANK
  - 29 SAYAM BANK
  - 30 THAI MILITARY BANK
- HOTEL**
- H1 SOOKCHAI HOTEL
  - H2 PHUKET MARLIN HOTEL
  - H3 LAUM THONG HOTEL
  - H4 ON-ON HOTEL
  - H5 PENGMIN HOTEL
  - H6 SINTHAVEE HOTEL
  - H7 CHAROEN SOOK HOTEL
  - H8 THARA HOTEL
  - H9 SOOK SABA HOTEL
  - H10 MONTRI HOTEL
  - H11 SIAM HOTEL
  - H12 THA THAVORN HOTEL
  - H13 PEARL HOTEL
  - H14 IMPERIAL HOTEL
  - H15 P.S. INN HOTEL

#### 4.1.2 SPECIFIC TOURISM AREA DEVELOPMENT GUIDELINES

In the Phuket cluster, four sub-regions are identified as potential tourism areas where both governments and private sector should promote in a coordinated manner. The following are the guidelines for these specific area tourism development.

##### PHUKET TOURISM DEVELOPMENT AREA



1. Location:
  - 1) 01:20 hrs by Air or 14:00 hrs by Bus from Bangkok (862 km)
  - 2) 00:35 hrs by Air or 06:00 hrs by Bus from Surat Thani (287 km)
  - 3) 01:00 hrs by Air or 08:00 hrs by Bus from Hat Yai (480 km)
2. Area:

The whole area of Phuket Province, the south part of Phang Nga Province including Muang Phang Nga and Thai Muang districts and the Phi Phi Islands in Krabi Province.
3. Function:
  - 1) Major international tourist destination in Southern Region
  - 2) The primary center of the Phuket cluster
4. Gateway:
  - 1) International gateway at Phuket International Airport
  - 2) Regional gateway at Phuket and Phang Nga cities on highway 402/4
5. Attractions:

"Beach and marine resort for international tourists"

  - 1) Exclusive beach resort along the west coast of Phuket
  - 2) Marine and inland sports activities in Phuket
  - 3) Shopping and historic buildings in Phuket town
  - 4) Seafood and Vegetarian Festivals in Phuket
  - 5) Water attractions in Phang Nga Bay
  - 6) Ancient paintings in many caves along the Phang Nga coastal area (Phang Nga Province)
  - 7) Phi Phi Islands (Krabi Province)
6. Urgent Actions/Programs:
  - 1) Completion of the on-going projects and the OECF Loan projects by 1991.
  - 2) Review of the proposed Rawai beach-Surin beach highway (OECF loan project) taking environmental and landscape aspects into consideration
  - 3) Moratorium on further hotel development within Phuket island.
7. Guidelines for Planning and Development:
  - 1) Planning Studies are recommended to be undertaken with:
    - a. Preparation of an integrated tourism development plan with implementation program including Phang Nga Bay and Thai Muang areas as a greater Phuket tourism zone
    - b. Preparation of the management plan for Hat Nai Yang National Park by RFD.
  - 2) Accommodation and other Tourist Facilities Development involves:
    - a. Expansion and up-grading the existing accommodations in Phuket up to 15,000 rooms during Phase-I and development of a new hotel complex of luxurious class of about 2,000 rooms in southwest of Phang Nga Province in Phase-II.
    - b. Expansion of the existing accommodations up to about 500 rooms in Phang Nga Bay in Phase-III.
    - c. Development of a multi-purpose sports complex at Patong beach, with tennis courts, gymnasium, sports ground, soccer field, diving training center etc.
    - d. Development of a Southern Thailand Tourism Training School in Phuket or Phang Nga
    - e. Development of a convention hall and a golf course at a new hotel complex in Phang Nga West
    - f. Establishment of a tourist plaza at Phuket town, with duty free shop and souvenir shops.
    - g. Improvement of sight-seeing course and boats in Phang Nga Bay.
  - 3) Transportation and other Technical Infrastructure Development require:
    - a. Encouragement of the sea network from Phuket to tourist attractions in Krabi and Phang Nga including Phi Phi, Similan and Surin islands.
    - b. Improvement of Phuket International Airport.
    - c. Promotion of the water supply scheme of Phases II and III by PWA.
    - d. Development of appropriate sewage systems
    - e. Waste disposal management system formation.
    - f. Improvement of local roads at potential tourism spots.
8. Major Development Centers:
  - 1) Beach resort development on the west coast of Phuket
  - 2) Improvement of Phuket city as a tourist service town with shopping area, historical interest area, training school, employment housing area, etc.,
  - 3) Multi-purpose sports complex in Patong beach
  - 4) Luxurious international hotel complex at Phang Nga West (Phang Nga province)
  - 5) Improvement of tourist base at Phang Nga Bay (Phang Nga Province)
  - 6) Conservation and Beautification of Phi Phi islands (Krabi Province)

## ANDAMAN ISLANDS DEVELOPMENT AREA

### 1. Location:

- 1) 03:30 hrs by Boat (Takuapa) and 01:30 hrs from Phuket to Similan Island
- 2) 04:00 hrs by Boat (Khraburi) and 02:30 hrs from Phuket to Surin Island
- 3) 02:00 hrs by Bus from Surat Thani to Phang Nga (196 km)

### 2. Area:

The West Coast of Phang Nga Province and Surin/Similar islands in the Andaman Sea, excluding the southwest part of the Province

### 3. Function:

Tourist destination in the Phuket cluster

### 4. Gateway:

Regional gateway at Tab La Mu, Thai Muang, Takuapa and Phuket International Airport, Wakhale, Nai Han, Chalong where there are access points to Similan and Surin Islands

### 5. Attractions:

"International diving spots and island resort"

- 1) Diving spots and marine resort in Similan island
- 2) Diving spots and marine resort in Surin island
- 3) Natural beauty of the Hat Thai Muang National (Marine) Park

### 6. Urgent Actions/Programs:

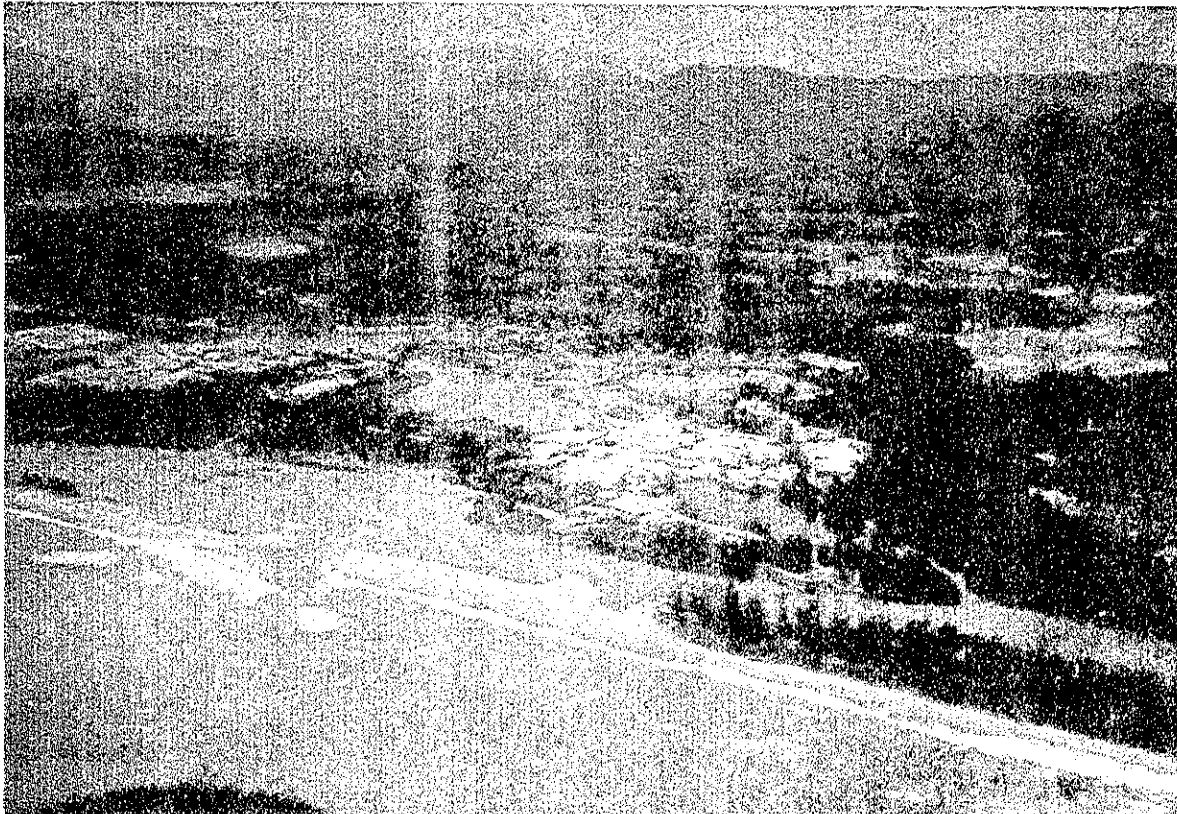
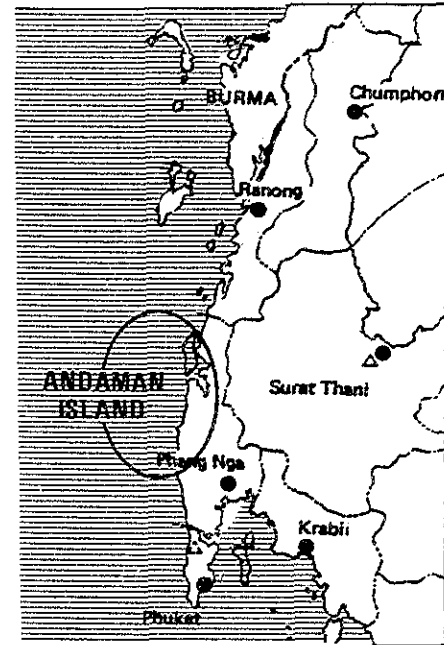
- 1) Completion of the on-going projects and the OECF loan projects by 1991
- 2) Sales promotion of the Similan and Surin islands as an international diving area.

### 7. Guidelines for Planning and Development:

- 1) Planning Studies are recommended to be undertaken with:
  - a Study of the sea transportation network from the mainland to the Similan and Surin islands.
  - b Accommodation and environmental study for Similan and Surin Archipelago Marine National Parks
  - c Preparation of the management plan for the Khao Lam Pi-Hat Thai Muang National Park
- 2) Accommodation and other tourist facilities development includes development of a new resort accommodation with an appropriate number of rooms in Similan island and Surin island.
- 3) Transportation and other technical infrastructure development should be explored with a sea transportation system (between mainland and islands)

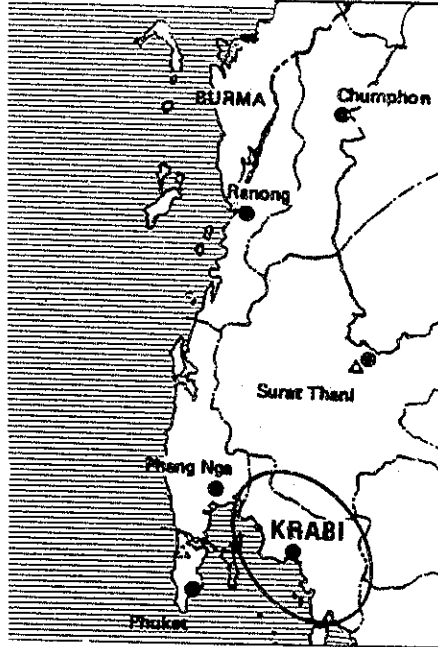
### 8. Major Development Centers:

- 1) Hat Thai Muang National Park
- 2) Marina and port development
- 3) Surin Island
- 4) Similan Island
- 5) Phang Nga West (See Phuket Tourism Development Area)
- 6) Ancient paintings in many caves along the Phang Nga coastal area (See Phuket Tourism development area)



West coast of Phang Nga Province, from the air

### KRABI DEVELOPMENT AREA (PHASE-II)



1. Location:
  - 1) 04:00 hrs by Bus or 03:00 hrs by Boat from Phuket
  - 2) 02:30 hrs by Bus from Surat Thani (211 km)
  - 3) 16:00 hrs by Bus from Bangkok (814 km)
2. Area:

The whole area of Krabi Province excluding the Phi Phi islands
3. Function:

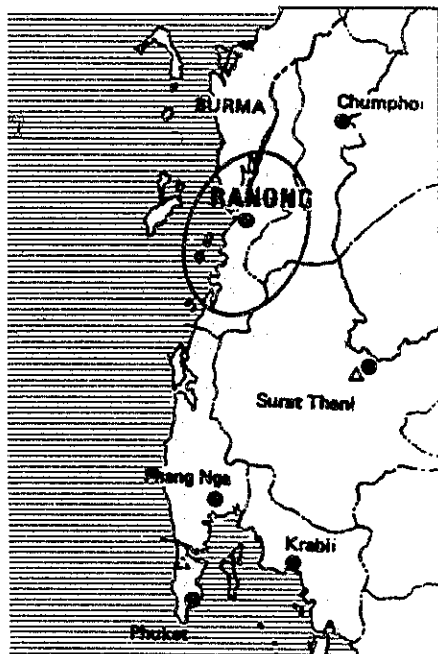
Tourist destination in the Phuket cluster
4. Gateway:

Regional gateway at Krabi Airport and the city on highway No. 4.
5. Attractions:

"Back to nature in virgin islands and beaches"

  - 1) Nopharat Thara beach (Marine National Park)
  - 2) The many caves with ancient paintings and bird nests
6. Urgent Actions/Programs:
  - 1) Completion of the on-going projects and the OECF loan projects by 1991
  - 2) Conducting a tourism survey of the coastal zone of Krabi with the coordination of FAD
7. Guidelines for Planning and Development:
  - 1) Planning studies should include:
    - a. Tourism and environment studies of the coastal zone of Krabi Province;
    - b. Transportation study of Phuket-Phang Nga-Krabi linkage
  - 2) Accommodation and Other Tourist Facilities Development should be explored with development of a new high class resort accommodation with about 300 rooms in Nopharat Thara beach and other beaches by 1996.
  - 3) Transportation and other Infrastructure.
8. Major Development Centers:
  - 1) Beach and island resorts development in Nopharat Thara National Park
  - 2) Development of tourist facilities at caves in Ao Luk
  - 3) Beautification and improvement of tourism facilities in Phi Phi island

### RANONG DEVELOPMENT AREA (PHASE-III)



1. Location:
  - 1) 07:00 hrs by Bus/Train from Bangkok (568 km)
  - 2) 06:00 hrs by Bus from Phuket
  - 3) 02:30 hrs by Bus from Surat Thani (210 km)
2. Area:

The whole area of Ranong Province
3. Function:

Tourist destination for special interest groups in the Phuket cluster
4. Gateway:

Original gateway at Ranong City on highway No. 4
5. Attractions:

"Highland recreation and health rehabilitation with hot spa"

  - 1) Raksa Warine pavilion and bathrooms
  - 2) Kra Isthmus and Mountainous Scenery
  - 3) Local Products (pearl, tin) and festivals
6. Urgent Actions/Programs:
  - 1) Completion of the related on-going projects in the 6th Five-year Plan
7. Guidelines for Planning and Development:
  - 1) Planning Studies are recommended to be undertaken with:
    - a. Feasibility study on health rehabilitation facilities development;
    - b. Study of landscape development for the Khra Canal and Khraburi
  - 2) Accommodation and Other Tourist Facilities Development with:
    - a. Expansion and upgrading the existing accommodations in Ranong (The Chansom Thara Hotel);
    - b. Improvement of the existing pavilion and bathrooms at Raksa Warine with an international standard.
  - 3) Transportation and Other Infrastructure Development includes Improvement of the Ranong pier.
8. Major Development Centers:
  - 1) Health rehabilitation facilities development in the city of Ranong
  - 2) Highland recreational facilities development in Hat Laem Son
  - 3) Landscape development in Khra Buri



### 4.1.3 MAJOR PLANS AND PROJECTS TO BE IMPLEMENTED

A number of projects/programs are proposed in a phased manner, based first on the regional development strategies underlying the existing plans/studies, and second on the desired direction of tourism development in each cluster so that it may make full use of its endowments and potentials. Particular attention has been paid to the projects in the short- and the medium-run which may urgently resolve the critical problems and the bottle-necks for further development. Since tourism development cannot exist alone, it should be implemented in relation to the regional development as a whole.

All projects/programs which have been committed or recommended in the previous studies/plans in Southern Region are tabulated as shown in 1.4.1-1.4.3 of "Appendices". The listed projects vary with stages: project identification to detailed design, and with objectives: industrial to tourism development. Although each project has not necessarily been identified with a particular purpose of tourism, it may be related to each other in the context of tourism development. Linked with these projects, a number of projects/programs are proposed by each cluster as follows.

#### 1) PHASE-I (1987-1991: 6TH NATIONAL PLAN)

The most critical task to be done during Phase I is to seek an appropriate development system in harmony with environmental preservation, holding the policy for international tourism promotion. For this purpose, a number of projects should be initiated with a broad framework as follows:

a. Transportation Infrastructure: Development of the gateway of international tourism and an intra-regional integration system should be given high priority. They include the on-going and the scheduled projects such as:

- Improvement of the Phuket International Airport;
- Rehabilitation of the national highway of Route No.4 including the Phuket Bridge;
- Rehabilitation of provincial highways in the Phuket island such as Route 4024 between the Chalong and the Rawai beaches (5.5km) and Route 4020 between Phuket and the Patong beach (6.5km);
- Development of the new west coast highway from the Rawai to the Surin beaches (43.0km). This highway should be developed with special attention to environment protection. At the same time, since this highway may influence greatly the physical structure of the Phuket beach resort areas, a thoughtful design is needed, associated with some control regulations on buildings located alongside the highway, plantation, traffic signs and so on; and
- Development of piers together with marine parks in the Similan and the Surin islands in order to build the Andaman sea excursion routes.

Out of the above, the improvement of Phuket International Airport (PIA) is critical for international tourism promotion in the Phuket cluster. This is located at the west coast in the northern district of Phuket Island, and has a runway set on the east-west direction and has a runway 3,000 meter long due to the completion of runway extension project which has been commenced in 1987. Although the runway has been developed to be an international class, the width of runway strip is still remained at 150 meter wide. Moreover, the terrain surrounding the airport are very strict for aircraft operation. Actually, the part of mountain located south of the airport is within the transition surface. Meanwhile, as for the airport capacity, it is still limited at a low level, due to no existence of a parallel taxiway. It is strongly recommended that these problems are completely moved out in the next phase, Phase II.

At present, the following projects are going on at PIA.

- Construction of new terminal facilities including apron (2 spots for B747), car parking, and roads which is due to be completed in September, 1988;
- Construction of a new terminal building with a passenger handling capacity of 2,050 for international and 1,683 for domestic passengers during peak-hours which is to be completed in March, 1989;
- Installation of a PSR/SSR radar and ILS facilities, and construction of a new control tower.

b. Utilities: A sanitary utility system related to management of natural resources should be established with high priority. In this regard, the following are recommended to be developed:

- Sewage treatment plant at the Patong beach (on-going);
- Sewage treatment plant at the Karon/Kata beaches; and
- Improvement of solid waste collection systems for all beaches.

c. Water Supply System: Since this is the most crucial in the Phuket development, much effort should be made for implementation of the project as well as for study of water resources other than the Bang Wat Reservoir for the future demand. The second phase program of the PWA's plan is highly expected to be implemented in a well-planned manner. In this second phase program, the water supply systems for tourism purpose are planned only in the Karon/Kata and the Nai Han beaches based on a total demand of 4,400 cbc. m/day in 2002. In addition to the existing system in the Patong beach, the total capacity of water supply for tourism accounts for about 6,400 cbc. m/day in 2002. However, this amount is equivalent only to a half of the anticipated demand for tourism in 2001, about 13,500 cbc. m/day on the average. Accordingly, a long-term program including additional water resource development projects is needed to be established during this phase. At the same time, the improvement of the Phuket municipality water supply system should be commenced under a proper coordination between the Phuket Municipality and PWD.

d. Related Institutional Actions: Definite actions should be undertaken in order to manage natural/environmental resources in coordination with the relevant agencies and the local governments. This includes:

- Preparation of building codes/design criteria applicable for the beaches other than Patong;
- Preparation of an environmental standard for waste water effluent in all beaches;
- Institutional reorganization for supervision, management and control of tourism development projects.

## 2) PHASE-II (1992-1996: 7TH NATIONAL PLAN)

A wide variety of tourism attractions should be developed during this phase with special emphasis on development of tourism infrastructure. The following are recommended:

### a. Air Transportation Development

Phuket international Airport is necessary to increase the air transport capacity and to upgrade the navigational safety level so as to meet at least the requirements of the ICAO standard for international airports. The following projects are recommended to be commenced in this phase:

- Development of parallel taxiway;
- Expansion of runway strip to 300 meter in width; and
- Clearance of obstacle limitation surface.

The Krabi Airport, on the other hand, has a runway 1,200m long and 12 m wide. The Bangkok Airways had operated flights to/from Bangkok three times a week, however, has stopped since 1987, because the airport facilities are not sufficient for safety of operation and the demand is not sufficient to maintain the flights. Krabi Airport, should be improved as a feeder airport. Emphasis of this project is recommend to be placed on upgrading of the safety level with the following actions:

- Widening of runway from 12 m to 30 m, including improvement of the existing runway;
- widening of runway strip to 150 m;
- renovation of the terminal building.

### b. Infrastructure: This sector should involve the following projects/actions:

- Development of sea transport networks for sea excursion routes such as the Phang Nga Bay circuit; the North Andaman Route (Phuket-Surin-Similan) and the South Andaman Route (Phuket-Phi Phi-Tarutao), by introducing some sorts of high speed transpiration such as hydrofoil or Hovercraft;
- Development of "Phuket Marine Center" as a focal project to structure a sea transport network system;
- Improvement/up-grading of the regional highway Route 4040 as a part of the East-West link between Phuket and Surat Thani;
- Development of appropriate sewage treatment systems in Phuket city and Karon/Kata beach;
- Implementation of the phase-II water supply projects of the PWA program;
- Improvement of solid waste treatment systems in the whole island.

### c. Public Facilities: In order to support the tourism development, the following should be emphasized:

- Encouragement of private investment on the tourism-related facilities at Patong Beach;
- Establishment of a "Tourist Plaza" with functions of tourist information, shopping center, exhibition, handicrafts and souvenirs center, etc.;
- Establishment of a "Southern Region Tourism Training School";
- Establishment of the "International Convention Center";
- Revitalization program of historic conservation areas jointed with street improvement in the Phuket town; and
- Beautification program in the Phuket town.

### d. Accommodations:

- Development of a "New International Resort Complex" with about 1,500 first class rooms;
- Expansion and improvement of accommodations in the Phang Nga Bay areas;
- Development of new resort hotels in the Krabi West coast area.

## 3) PHASE-III (1997-2001: 8TH NATIONAL PLAN)

Based on the development carried out during the preceding phase, further improvement and development should be undertaken toward their desired features. Some projects are to be continued to be implemented from phase II and some should be commenced additionally in this phase. The following are the focal projects recommended with a long term perspective:

### a. Air Transportation:

Phuket International Airport is recommended to be improved furthermore in terms of upgrading of safety operation so as to meet the standard for international airports. The improvement of navigation aid system is a focus of this problem. The ILS facilities to be installed during Phase I period should be replaced for MLS facilities which would be a standard aid system at international airports over the world in future.

### b. Infrastructure:

- Continual development of the East-West Link connecting Phuket with Surat Thani;
- Improvement of local highways connecting between major tourism spots and transport nodes such as the airport, the deep sea port, the regional bus terminal and the sea excursion piers;

- Continual development of Phuket Marine Center equipped with a wide variety of marine facilities;
- Development of water resources and expansion of water supply systems.

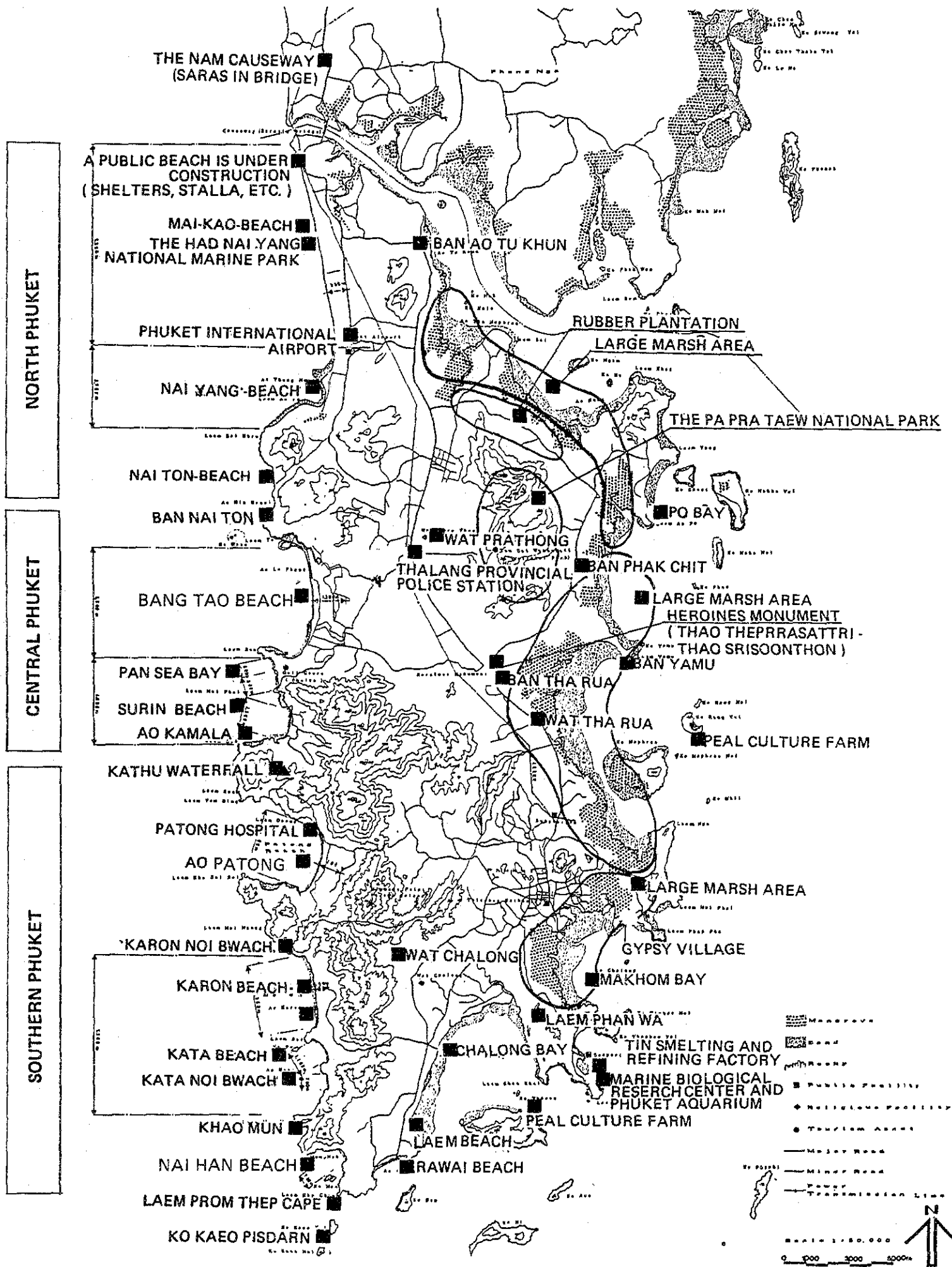
c. Public Facilities:

- Development of a "Water Attraction Park" in the Phang Nga Bay; and
- Establishment of the "Sports Complex" at a "New Resort" in Thai Muang;

d. Accommodations:

- Development of luxurious accommodations in the Phang Nga West area; and
- Expansion of accommodation capacity in the Phang Nga Bay area including Krabi;

FIG. 4-1-3 TOURIST ATTRACTIONS OF PHUKET



## 4.2 SURAT THANI CLUSTER

The tourism assets in this cluster vary: beach resorts in Samui; marine and natural attractions/scenery in the Pha-ngan and the Ang Thong National Park; and historical/religious attractions in the Chaiya area. The cultural assets in Nakhon Si Thammarat are also involved in this cluster. These attractions are located in a dispersed manner, hence, need to be integrated by a well-developed transport network system. As for the beach resorts, Samui, in fact, is already an international tourism destination, but it is limited in its spatial capacity. The seasonal fluctuation is another limitation. Samui is quite popular among tourists who prefer staying for a long term with less expense, however, it is noted that a number of shanty bungalows have recently been converted into international standard hotels, and that large-scale investment has been injected in developing luxurious hotels. These movements imply that Samui tourism has just entered the new era of development. Further tourism promotion will require the development of basic infrastructure such as water supply, electricity distribution and sanitary facilities. Generally, it is recommended that tourism development in this cluster be performed step by step so as to make full use of the varied tourism assets for both domestic and foreign tourists.

### 4.2.1 POTENTIAL AND CONSTRAINTS

#### 1) GENERAL

Surat Thani is located on the west coast of the gulf of Thailand between the latitude 8 17' - 9 50' and the longitude 98 28' - 100 05', 650 kilometers south of Bangkok. A total area of the province is 12,890 sq.km.

The major land-form is a coastal plain between the high plains on the west, and the hilly areas or high plains on the east. The remainder of the province consists of 50 islands in the Gulf of Thailand. The main islands are Samui, Pha-ngan and the Ang Thong National Park. These heterogeneous land-forms have endowed Surat Thani Province with the beautiful natural environment: forests, hills, waterfalls, coastal areas and islands, which are all attractive to tourists.

The most attractive places for international tourists are Samui, its neighboring islands and marine environment, followed by cultural and historic attractions in Chaiya and Nakhon Si Thammarat. Although the majority of the tourists visiting this cluster is still domestic, a considerable number of international tourists visit in recent years. The government has paid attention to Samui in providing water supply, electricity, and roads. It is expected to develop Samui, as an international island resort while maintaining its natural environment. The most suitable season for tourists in this cluster is the period from February to October when the Phuket cluster is in off-season

#### 2) PHYSICAL POTENTIAL OUTLOOK

The following 3 categories of tourism resources are identified in this cluster i.e., mainland resorts, woodland areas and islands, all of which have different physical characteristics.

##### a. Mainland Coastal Resorts

Most of them are located around Ao Ban Don in Chaiya District. These areas are a plain with not more than 5 meters above sea level.

Don Sak District is located in the eastern part of the province at a slightly higher altitude than the above areas. The land is mostly used for agricultural purposes. Attractions here are associated mainly with arts and cultural assets rather than the natural environment.

##### b. Woodland Areas Located in the Western and Southern Part of the Province

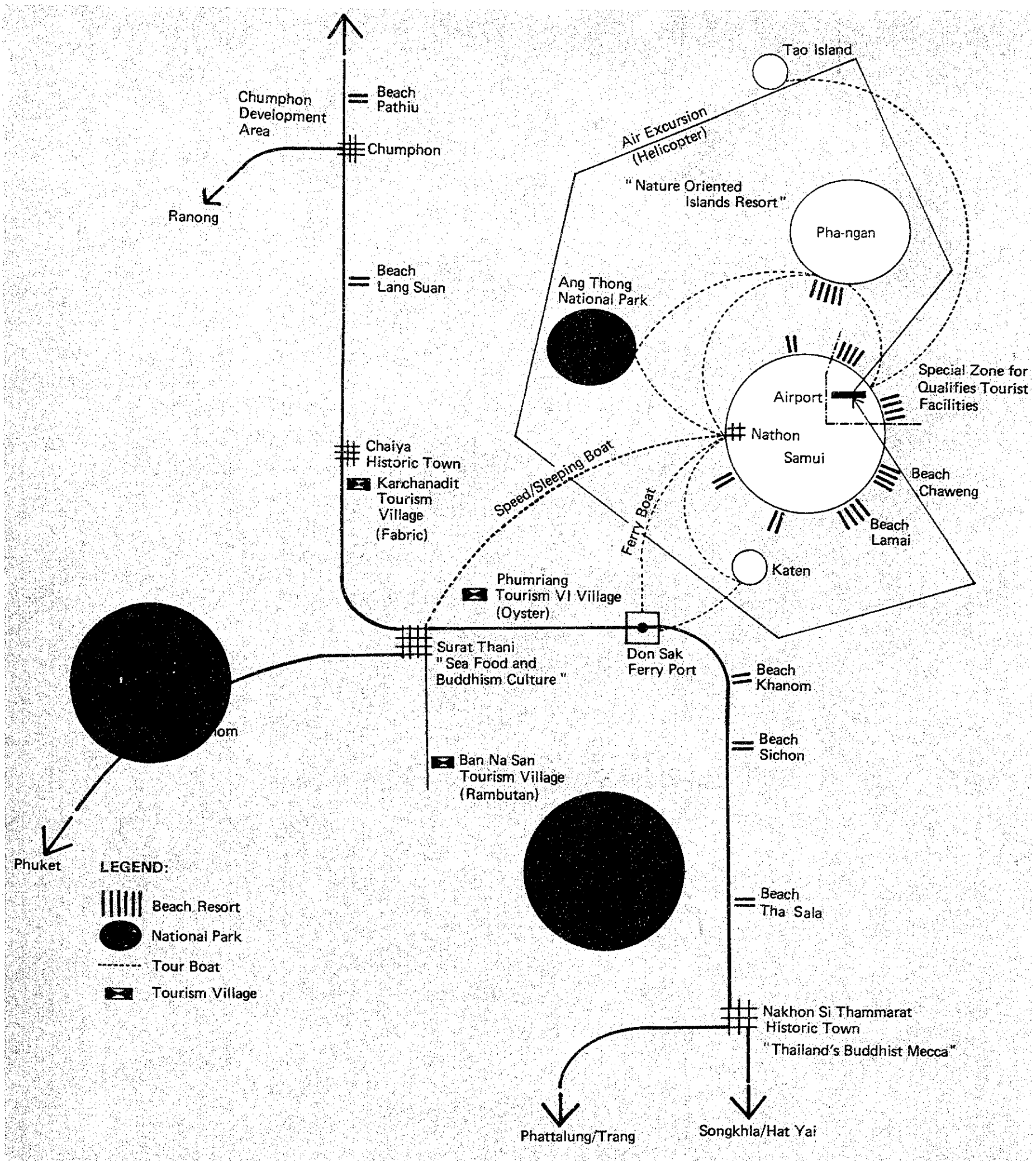
The areas consist mainly of forests, mountains and newly colonized agricultural areas. Attractions here are associated mostly with nature and are almost in a virgin condition in tourism.

##### c. Island Resorts

These are islands located outside Ao Ban Don. Samui is the largest island with a large number of places of interest, mostly beaches. Samui is located about 80 kilometers from the Muang district. The area of the island is approximately 232 sq.km.. The second largest island is Pha-ngan, located 86 kilometers from the Muang district and about 15 km. from Samui. The area of Pha-ngan is approximately 168 sq.km with a population of 28,000. In addition, there is an archipelago located between Samui and the mainland, called Mu Ko Ang Thong. A total area of these islands (including Phaluai island) is approximately 82.6 sq.km. Moreover, there exists another island which is in a more remote location, 45 kilometers northwest of Pha-ngan called Tao. Its area is approximately 25 sq.km..

Surat Thani Province is not only blessed with varied natural resources, but also with the climate which is suitable for tourism. The dry season in Surat Thani lasts for 3 months from February to April and is subject to the northeast monsoon from November to April. It has heavy rains and strong waves between October and January. In other months the wind and the sea are both relatively calm. As a result, the tourist seasons in Surat Thani and Phuket are alternate. The most suitable season for tourism in Surat Thani is the period from February to October when the sea is so calm and clear that one can easily view the abundant coral reefs from above the water.

FIG. 4-2-1 TOURISM STRUCTURE OF SAMUI/SURAT THANI



The western part of Samui is the commercial and administrative center. There are piers for speed boats and ferry boats. It has been committed to build new piers soon, since the existing piers are too small. The sewage disposal is the largest problem over the resort areas as well as in the town. Unless appropriate measures are undertaken promptly in this aspect, the invaluable marine resources will be lost. Fishery and fruit growing are being performed with large scale. These industries should be encouraged from a stand-point of tourism promotion as well.

In the eastern part, Samui Airport has been constructed by a private investor, but has not been operated. If this airport be open in service, the potential of this area as a tourist resort would be boosted. In order to utilize this transportation for the tourism promotion, some technical, engineering and administrative arrangements are additionally required.

At present, the eastern Samui is the furthest from the port and the road connecting this area is in bad condition. However, accommodations have been developed in different parts of the area. The varied topographical features and different beach characters should be conserved with creating the individuality. As tourists who require a higher class of accommodation have increased in number, some investors operating simple bungalows have replaced them with high-class buildings. This movement is expected to continue in the forthcoming period.

### 3) ENVIRONMENTAL ASPECTS

In the Surat Thani cluster, Samui is an outstanding tourism spot for the further development. The beaches of the island, especially on the east coast, have been left in natural condition and so beautiful that many domestic and western people may be attracted. However, along with the rapid development, water supply and sewage treatment are becoming critical problems.

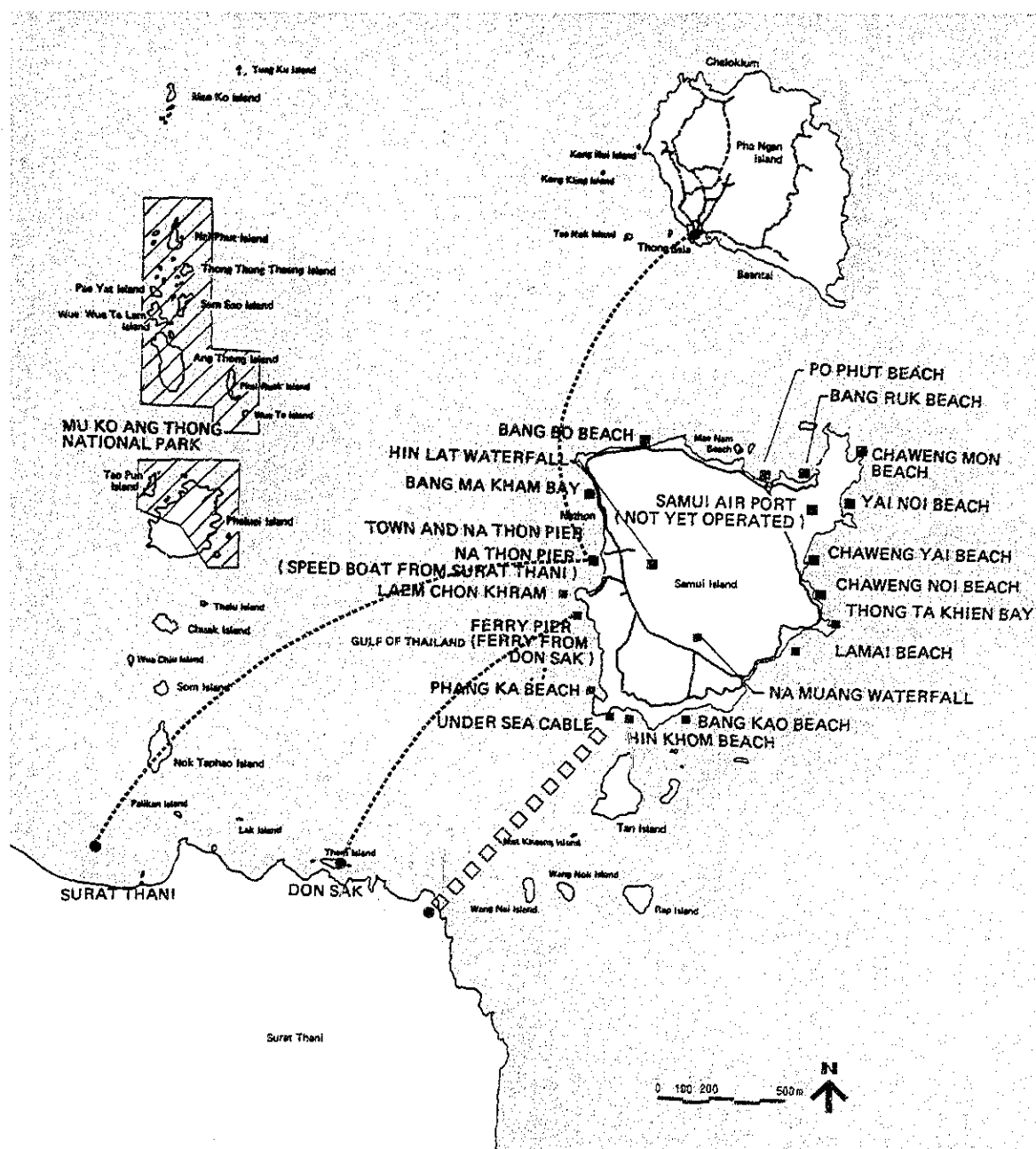
At present, water pollution due to the inadequate discharge of effluent is likely to damage natural resources, and the encroachment of buildings on beaches and forests deteriorates the natural resort areas.

On the other hand, the local authority collects solid waste 3 times a day separately in the western and eastern part of island and it is dumped at the disposal site located in the south-western part, Kho-long Luk. There are 3 collection trucks, and usually two of them are used. A number of bottles and other beverage containers are left on the ground after drinking, thereby creating aesthetic deterioration.

Particular countermeasures against such deterioration problems are urgently required, including the following considerations:

- a. Individual sewage disposal systems should be provided by hotels, bungalows and buildings along the beach.
- b. The building of hotels and other facilities located near beaches should be controlled so as to preserve the natural resources as much as possible.
- c. As for the solid waste disposal problem, a deposit system should be introduced so that the soft-drink dealers are responsible for collecting used bottles, and the sanitary landfill should be promoted to keep the surrounding area clean.

FIG. 4-2-2 TOURIST ATTRACTIONS OF SAMUI/PHA-NGAN/MU KO ANG THONG



**FIG. 4-2-3 TOURIST ATTRACTIONS OF SURAT THANI**

legend

**TOURIST ATTRACTIONS**

● **NATURAL ATTRACTIONS**

- |    |                                |    |                            |
|----|--------------------------------|----|----------------------------|
| 1  | KHAO THA PHET NON-HUNTING AREA | 29 | HAT CHOENGMON              |
| 2  | BUNG KHUN THALE                | 30 | AO BANG RAK                |
| 3  | PAK NAM TAPI                   | 31 | HAT BO PHUT                |
| 4  | KO LAM PHU                     | 32 | HAT MAE NAM                |
| 5  | BO NAM THIP PRAPHUTTHAMONGKON  | 33 | HIN LAT WATERFALL          |
| 6  | THE SATHON HOT SPRING          | 34 | LAT WANON WATERFALL        |
| 7  | BAN KRUT HOT SPRING            | 35 | KHAO POM                   |
| 8  | LAEM SUI                       | 36 | NA MUANG WATERFALL         |
| 9  | LAEM PHO                       | 37 | KO TAEN-KO MUT SUM         |
| 10 | KHAO BO NAM RON                | 38 | MU KO ANG THONG            |
| 11 | THUNG SAI NGAM                 | 39 | AO THONG SALA/NAI WOK      |
| 12 | THAN NAM RON                   | 40 | AO TAE NAI                 |
| 13 | WONG HIN                       | 41 | AO BAN TAI                 |
| 14 | KO NOK PAO - RIKAN             | 42 | AO HAT RIN                 |
| 15 | KLANG THONG WATERFALL          | 43 | AO HAT YUAN                |
| 16 | WIPAWADI WATERFALL             | 44 | AO HAT THIAN               |
| 17 | SUAN PHAI WERUWAN              | 45 | HAT LAEM WAI NAM           |
| 18 | CHIEW LAN DAM                  | 46 | AO HAT YANG                |
| 19 | KHAO SOK NATIONAL PARK         | 47 | THAN PRAPHAT WATERFALL     |
| 20 | THAM PHANTHURAT                | 48 | THAN SADAT WATERFALL       |
| 21 | THAM WARARAM                   | 49 | AO HAT KRUA                |
| 22 | KHAO NA DAENG                  | 50 | HAT THONG TA PAN           |
| 23 | HAT NA THON                    | 51 | AO HAT KHUAT               |
| 24 | AO KAKI                        | 52 | AO MAE HAT                 |
| 25 | HAT THONG YANG                 | 53 | AO HAT LAT                 |
| 26 | HAT LAMAI                      | 54 | AO SRI THANU               |
| 27 | HAT THONG TAKHIAN              | 55 | AO WOK THUM                |
| 28 | HAT CHAWENG                    | 56 | NAM TOK PHAENG FOREST PARK |

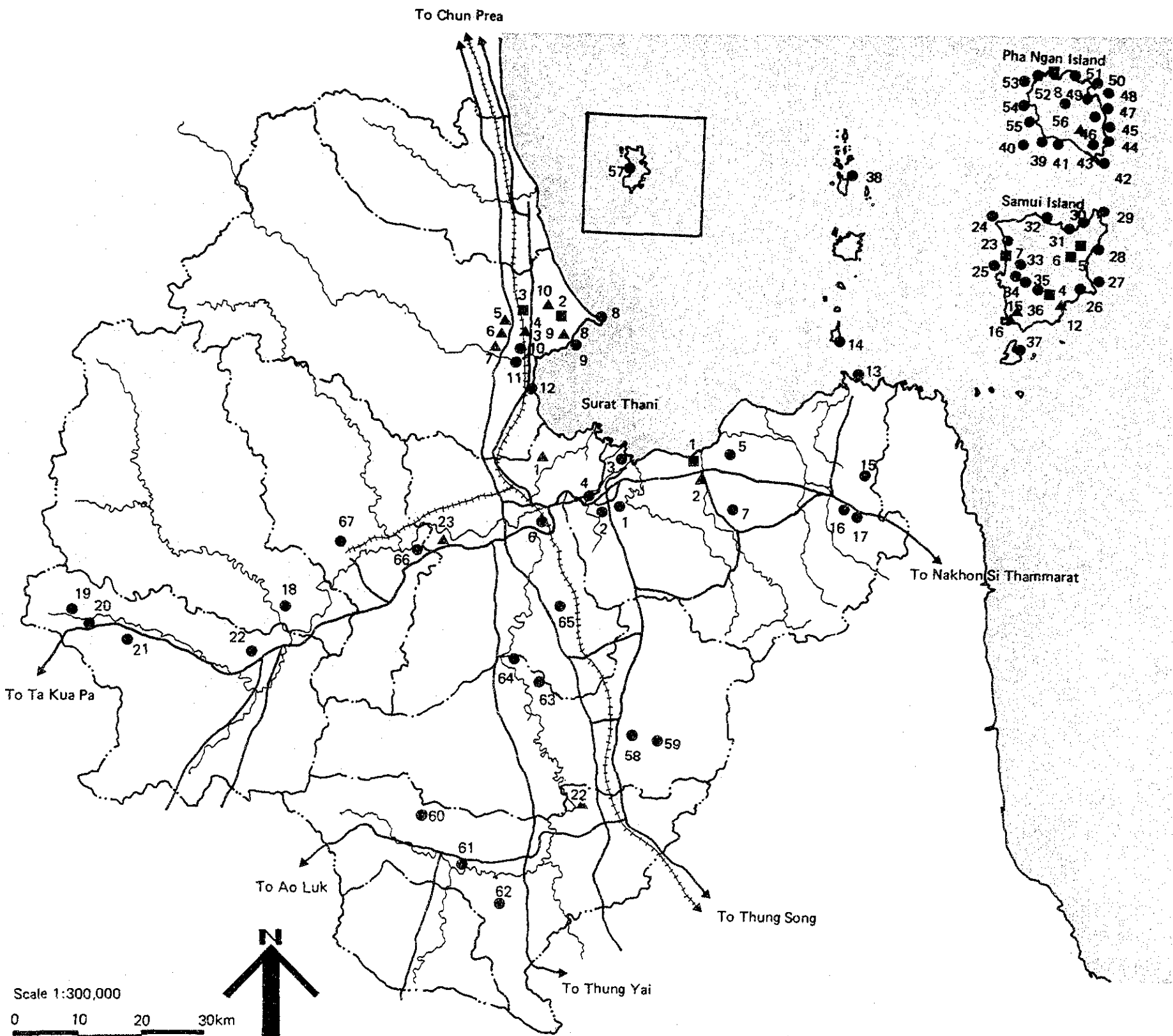
- |    |                             |
|----|-----------------------------|
| 57 | KO TAO/KO NANG YUAN         |
| 58 | KHAO TRI KIRI               |
| 59 | BO NAM RON                  |
| 60 | SRA BANG SAWAN              |
| 61 | KAENG TON                   |
| 62 | THAM HOM                    |
| 63 | BAN THUNG THONG FOREST PARK |
| 64 | KHAO TOK HOT SPRING         |
| 65 | KANG HUAI TAI               |
| 66 | KIRIRATTHANIKOM HOT SPRING  |
| 67 | WIPHA WADI WATERFALL        |

▲ **HISTORICAL AND RELIGIOUS ATTRACTIONS**

- |    |                               |
|----|-------------------------------|
| 1  | WAT KHAO SRI WICHAI           |
| 2  | WAT THAM KHUHA                |
| 3  | WAT PRA BORRMATHAT CHAIYA     |
| 4  | NATIONAL MUSEUM CHAIYA BRANCH |
| 5  | CHEDI WAT LONG                |
| 6  | WAT KHAO                      |
| 7  | SUAN MOKKHAPHLARAM            |
| 8  | WAT SAMUHA NIMIT              |
| 9  | WAT PHO THARAM                |
| 10 | WAT CHAMPA                    |
| 11 | WAT KHAO SUWANPRADIT          |
| 12 | WAT SILA NGU                  |

■ **CULTURAL ATTRACTIONS**

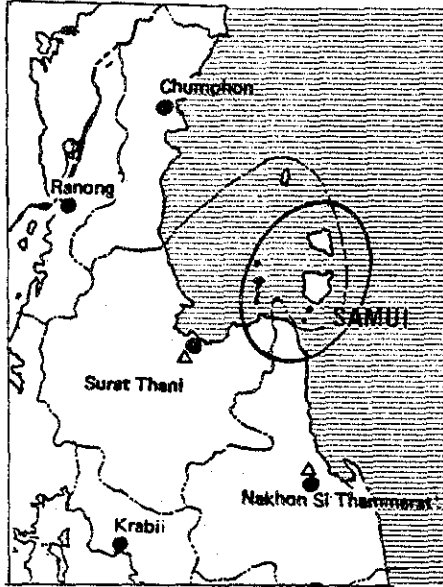
- |    |                                  |
|----|----------------------------------|
| 1  | OYSTER FARM                      |
| 2  | PHUMURIANG SILK WEAVING VILLAGE  |
| 3  | CHAIYA SALTY EGG MAKING VILLAGE  |
| 4  | BAN HUA THANON                   |
| 5  | BUFFALO FIGHTING GROUND          |
| 6  | WEAVING VILLAGE                  |
| 7  | BAN LIPA NOI                     |
| 8  | MU BAN CHALOK LAM                |
| 13 | PHRA YAI KO FAN                  |
| 14 | WAT NA PHRA LAN                  |
| 15 | KHAO LE BUDDHA'S FOOTPRINT       |
| 16 | CHEDI LAEM SO                    |
| 17 | KHAO HUA CHUK BUDDHA'S FOOTPRINT |
| 18 | WAT PHANG BUA                    |
| 19 | WAT KHAO THAM                    |
| 20 | WAT CHEDI NAI                    |
| 21 | WAT KHAO NOI                     |
| 22 | WAT WIANG SA                     |
| 23 | WAT THAM SINGKON                 |



## 4.2.2 SPECIFIC TOURISM AREA DEVELOPMENT GUIDELINES

In the Surat Thani cluster, four sub-regions are identified as potential tourism areas i.e., Samui, Surat Thani, Nakhon Si Thammarat and Chumphon. The development guide-lines for those areas are proposed as follows:

### SAMUI TOURISM DEVELOPMENT AREA



1. Location:
  - 1) 02:00 hrs by speed boat from Surat Thani (Ban Don)
  - 2) 01:00 hrs by air from Bangkok (Direct flight)
  - 3) 01:00 hrs by bus (to Don Sak) and 01:20 hrs by ferry boat from Surat Thani
2. Area:

Samui, Pha-ngan, Ang Thong and the neighboring islands in Surat Thani Province.
3. Function:

Major international tourist destination in Southern Region
4. Gateway:
  - 1) Regional gateway at Surat Thani Airport and the city of Phun Phin on highway No.41
  - 2) Regional gateway at Samui Airport
5. Attractions:

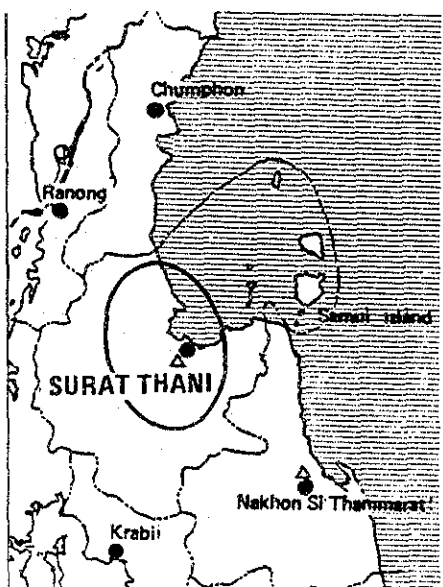
"Nature-oriented island resorts for longer-stay international tourists":

  - 1) Samui beach resort island;
  - 2) Pha-ngan beach resort island; and
  - 3) Ang Thong National Marine Park.
6. Urgent Action/Programs:
  - 1) Completion of the on-going projects and OECF loan projects by 1991;
  - 2) Improvement of Samui Airport for air flight services between Bangkok and Samui, or between Surat Thani and Samui; and
  - 3) Designation of a special zone for qualified tourist accommodation and facilities development near Samui Airport
7. Guide-lines for Planning and Development
  - 1) Planning Studies are recommended to be undertaken with:
    - a. Reviewing the Master Plan for Ko Samui/Surat Thani Tourism Development prepared by TAT, and undertaking the feasibility studies of the urgent programs proposed in the master plan in close coordination with the coastal management project conducted by NEB;
    - b. Preparation of a management plan for Ang Thon National Marine Park by RFD;
    - c. Encouragement of the beach resort development in the main island at Don Sak and Khanom;
    - d. Execution of a preliminary survey of Tao and Katen islands (possibility to establish as national park) by RFD.
  - 2) Accommodation and Other Tourist Facilities Development involves:
    - a. Expansion and upgrading of the existing accommodations and rehabilitation of the hotels/bungalows in Samui and Pha-ngan up to about 4,800 rooms in total during Phase-I and development of a new high class hotel with about 500 rooms on the east coast of Samui island in Phase-II.
    - b. Establishment of a tourist community center, with library, tourist information corner, handicraft labo., meditation place, etc.,
  - 3) Transportation and Other Technical Infrastructure Development should be taken into account for:
    - a. Upgrading the speed boats with increasing the capacity of the ferry boats, and improving tourist facilities, especially for passengers to Samui, Pha-ngan and Ang Thong islands;
    - b. Improvement and renovation of Samui Airport and its surrounding area;
    - c. Development of the water supply systems for all beaches of Samui island
    - d. Development of appropriate sewage systems
    - e. Development of the electricity network
8. Major Development Centers:

Major tourism development centers with qualified hotels and related tourist facilities are located in:

  - 1) East coast of Samui island;
  - 2) Na Thon and the west coast of Samui island;
  - 3) Pha-ngan island;
  - 4) Ang Thong National Marine Park; and
  - 5) Don Sak Ferry Port and nearby beach resorts in Khanom and Sicho.

### SURAT THANI DEVELOPMENT AREA



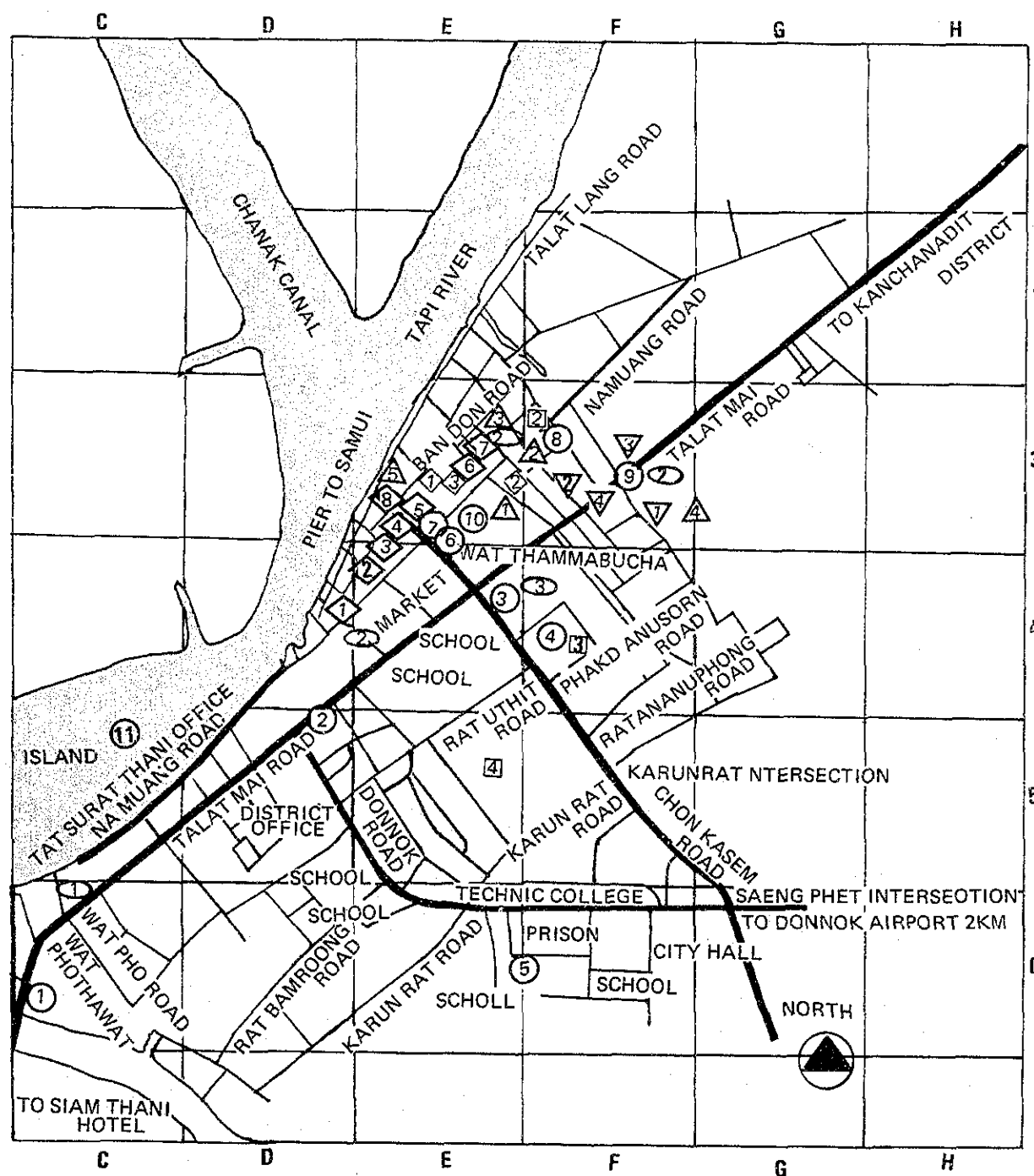
1. Location:
  - 1) 01:00 hrs by air or 11:00 hrs by bus/train from Bangkok (744 km)
  - 2) 00:35 hrs by air or 06:00 hrs by bus from Phuket (287 km)
  - 3) 04:30 hrs by bus/train from Hat Yai (329 km)
2. Area:

The whole area of Surat Thani Province except for the Samui Tourism Development Area
3. Function:
  - 1) Primary center of the Surat Thani/Ko Samui cluster
  - 2) Transit/stop-over point to other clusters
4. Gateway:

Surat Thani Airport and the city on highway No. 41



FIG. 4-2-4 MAP OF SURAT THANI TOWN



legend

SURAT THANI MAP OF SURAT THANI MUNICIPAL		
<b>HOTEL</b>		
1	WANGTAI	C6
2	SIAMTHARA	D5
3	MUANGTAI	E4
4	THANAWAT	F4
5	PHLOENPHET	E6
6	TAPI	E4
7	MUANGTHONG	E4
8	RATTHA	E3
9	THAI TANI	F3
10	SURAT	E3
11	LAMPHU	C6
<b>DEPARTMENT STORE</b>		
1	CHULA	E3
2	SAHA THAI	E3
3	PHIMAN	E3
<b>GAS STATION</b>		
1	PAT.	C6
2	ESSO	E3
3	CALTEX	F4
<b>THEATER</b>		
1	RATTHANAPHORN	E4
2	ODEN	E3
3	THANAWAT	F4
4	LIDO	E5
<b>BANK</b>		
1	THAI COMMERCIAL BANK	D4
2	THAI FARMERS BANK	E4
3	KRUNG THAI BANK	E4
4	BANGKOK BANK	E4
5	SIAM CITY BANK	E3
6	THAI MILITARY BANK	E3
7	BANK OF AYUDHYA	E3
8	BANGKOK COMMERCIAL BANK	E3
<b>TRANSPORTATION SERVICE</b>		
1	TRANSPORTATION CO.,LTD	F3
2	PANTIP CO.,LTD	F3
3	SONGSEM SERVICE	F3
4	PRIVATE BUS TERMINAL	F3
<b>PRIVATE COACH</b>		
1	KRUNG SIAM TOUR	E3
2	SOPHON TOUR	E3
3	CHOK ANAT TOUR	E3
4	THAI TRANSPORT TOUR	F3
5	UDOMRAT TOUR	E3
<b>CHURCH</b>		
TOURISM AUTHORITY OF THAILAND C5		

5. Attractions:

"Gateway town in the southern tourism region with Buddhist Culture"

- 1) Phara Boromthat Chaiya, Suan Mokka Phalaram, Wat(s) in the Chaiya district
- 2) Local products (oysters, seafood, fruits, fabric) and festivals (Chak Phra) in Surat Thani
- 3) Tourism villages in Kanchanadit (Oyster), Ban Na San (Rambutan) and Phumriang (Hand woven silk)
- 4) Chulan dam and the Khao Sok National Park

6. Urgent Action/Programmes:

- 1) Completion of the on-going projects and OECF loan projects till 1991
- 2) Designation of a tourism development area in the Chaiya/Phumriang area

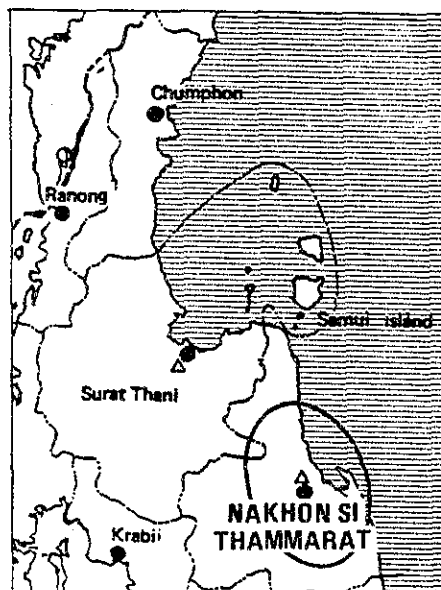
7. Guide-lines for Planning and Development:

- 1) Planning studies are recommended to be undertaken with:
  - a. Reviewing the Master Plan for Ko Samui/Surat Thani Tourism Development prepared by TAT, and undertaking the feasibility studies for the projects recommended in the master plan with close coordination of relevant agencies; and
  - b. Study of the proposed tourism villages development in the Kanchanadit, Ban Na San and Phumriang districts.
- 2) Accommodation and Other Tourist Facilities Development involves:
  - a. Expansion and upgrading of the existing hotel accommodations up to about 2,400 rooms in Phase II
  - b. Development of a cultural information center in Surat Thani Municipality
- 3) Transportation and Other Technical Infrastructure should be strengthened, associated with :
  - a. Promotion of the planned East-West Link road and railway project
  - b. Promotion of the planned water supply scheme

8. Major Development Centers:

- 1) Improvement of the gateway in the Surat Thani municipality and the proposed tourism villages in Phunphin and Kanchanadit
- 2) Historic/cultural development in Chaiya and the proposed tourism village at Phumriang
- 3) Highland resort in Phanom District

### NAKHON SI THAMMARAT DEVELOPMENT AREA (PHASE-II)



1. Location:
  - 1) 12:00 hrs by bus/train from Bangkok (780 km)
  - 2) 00:30 hrs by air or 02:00 hrs by bus/train from Surat Thani (137 km)
  - 3) 02:30 hrs by bus from Nat Yai/Songkhla
  - 4) 08:00 hrs by bus from Phuket
2. Area:

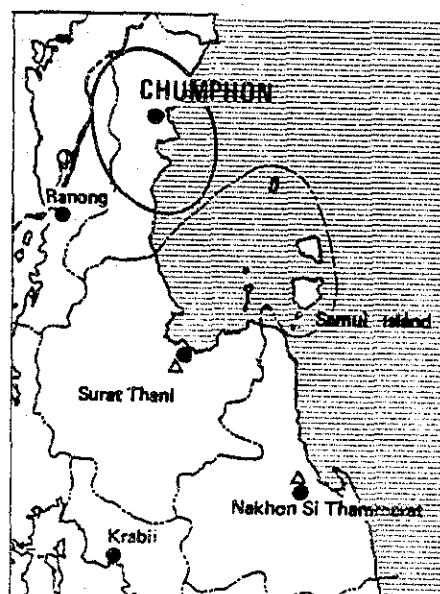
The whole area of Nakhon Si Thammarat Province
3. Function:
  - 1) Cultural tourism destination in the Surat Thani/Samui cluster
  - 2) Transit/stop-over point to other clusters
4. Gateway:

Regional gateway at Nakhon Si Thammarat airport and the cities on Regional Highways Nos. 41, 406, and 403.
5. Attractions:

"Thailand's Buddhism Center" involving:

  - 1) Wat Phra Mahathat and Museum;
  - 2) Phra Vihara Luang, Phra Buddha Sihing Tower, Giant Wing and the Brahman temple and other temples;
  - 3) Old city wall and the pillar;
  - 4) Sat Duan Sip festival;
  - 5) Pha Yok, Yan Liphao, rattan-ware and other local products; and
  - 6) Sichon and the Pak Phanang beaches
6. Urgent Action/Programs:
  - 1) Completion of on-going projects and the OECF loan projects by 1991
  - 2) Study of the sanitary problems
7. Guide-lines for Planning and Development
  - 1) Planning studies are recommended to be undertaken with:
    - a. Conservation and tourism development of the cultural attractions in the city of Nakhon Si Thammarat
    - b. Beach resorts at Sichon and Tha Sala
    - c. Kra Ram Waterfall in Lan Saka
    - d. Encouragement and promotion of the Hae Pha Khun That and the Tenth Lunar Month Festivals
    - e. Conservation and tourism development of the national attractions in the Khao Luang National Park (which is scheduled to prepare the management plan by RFD up to 1991)
    - f. Waterfall and cave in Tung Song
  - 2) Accommodation and Other Tourist Facilities Development should involve development of a new high class hotel with about 300 rooms.
8. Major Development Centers:
  - 1) Development of the historic/cultural tourism attractions in the city of Nakhon Si Thammarat
  - 2) Landscape development in Lan Saka and the Khao Luang National Park
  - 3) Beach resorts in Pak Phanang

### CHUMPHON DEVELOPMENT AREA



1. Location:
  - 1) 05:00 hrs by bus/train from Bangkok (463 km)
  - 2) 02:00 hrs by bus/train from Surat Thani (193 km)
  - 3) 07:00 hrs by bus from Phuket
2. Area:

The whole of Chumphon Province
3. Function:

Transit point and stop-over to other clusters
4. Gateway:

Regional gateway at Chumphon city on National Highway No. 4
5. Attractions:

"Beach Resort and Scenic Beauty for Domestic Tourists" involving:

  - 1) Beaches at Pathiu and Lang Suan;
  - 2) Bird's nest islands in Lanka Chiu; and
  - 3) Local festivals, products (bird's nest soup, coffee, fruits) and many caves.
6. Urgent Action/Programs:
  - 1) Completion of on-going projects and the OECF loan projects by 1991
7. Guide-lines for Planning and Development:
  - 1) Planning studies should be conducted with a detailed survey of the tourism attractions of the area;
  - 2) Accommodation and other tourist facilities development should be explored with attention to expanding and upgrading the existing hotels. The development of a new high class hotel with about 300 rooms may be explored in Phase III; and
  - 3) Transportation and other infrastructure development should be associated with the above.
8. Major Development Centers:
  - 1) Beach resorts at Pathiu and Lang Suan; and
  - 2) The city of Chumphon

## 4.2.3 MAJOR PLANS AND PROJECTS TO BE IMPLEMENTED

### 1) PHASE-I (1987-1991: 6TH NATIONAL PLAN)

The development of basic infrastructure supporting a wide variety of activities for Samui/Surat Thani tourism is recommended as follows:

#### a. Air Transportation

At Surat Thani Airport, the construction of an overlay over the existing facilities, including the runway, taxiway and apron will be carried out from 1988 to 1990. After completion of these project, Surat Thani airport can accommodate the A310 class aircraft. At the same time, a new taxiway connecting the runway and apron will be constructed. Secondary Surveillance Radar (SSR) will be installed in 1989. These projects are expected to be completed on schedule.

On the other hand, Samui Airport has a runway 1,500 m long and a temporary terminal building, but any related facilities such as drainage, navigation aids, car parking and access roads have not been provided.

Samui Airport is required to be improved and installed with related facilities so as to meet the ICAO standards. It is crucial to upgrade the level of safety involving a navigation aid system, a passenger terminal building and access roads. With the improvement of these facilities, Samui Airport will be able to become a feeder airport to provide with a rapid transport system connecting Surat Thani and Phuket. For this purpose, some governmental intervention is necessary in terms of financial support and provision of investment incentives.

#### b. Infrastructure and Environment

The following projects are needed to promote the tourism activities in this cluster:

- Development of water resources and water supply systems with a capacity of 6,000 cbc. m/day in Samui Island;
- Development of an electricity distribution system in Samui Island;
- Development of electricity generating facilities in Pha-ngan Island;
- Establishment of a telecommunication center in Samui Island;
- Development of sewage treatment plants at the beaches where a considerable number of accommodations are located in Samui Island; and
- Development of a solid waste collection system in Samui Island.

Transport facilities should also be developed in order to provide the safe and easy access to Samui Island as follows:

- Improvement of piers for speed boats and ferry transport in Samui Island; and
- Improvement of the existing ferry port facilities including the bus terminal at Don Sak.

The following studies should be conducted in order to seek further tourism resources in a proper manner:

- Community development plan for Ban Thong Sala in Pha-ngan Island;
- Review of the Feasibility Study of the Master Plan for Ko Samui/Surat Thani Tourism Development in close coordination with the Coastal Resources Management Plan conducted by NEB; and
- Management plan of Ang Thon Islands National Marine Park.

### 2) PHASE-II (1992-1996: 7TH NATIONAL PLAN)

Increasing the variety of tourism attractions is a main task to be done during this phase, associated with emphasis on providing a better transportation network. The following projects are recommended in this regard:

- Improvement of the provincial and the local roads proposed by the existing master plans;
- Development of a tourism zone in Chaiya;
- Establishment of a multi-function "Tourism Service Center" with tourist information center, exhibition of arts and crafts, seminar hall, library, shop for local products, handicrafts schools and meditation in Chaiya or Laem Pho District; and
- Establishment of a "Tourist Community Center" where tourists can enjoy learning traditional skills of indigenous industry, art and culture and marine sports in Samui Island.

The development of infrastructure should successively be continued from the preceding phase. Along with this, the following studies are recommended to be carried out in order to seek additional tourism attractions:

- Studies of tourism villages at Kanchanadit (oyster farms), Ban Na San (rambutan plantations), Chumphon (fisherman's village) and so on;
- Tourism development study of Nakhon Si Thammarat;
- Study of tourism resources in Tao and Katen Islands; and
- Study of natural resource management in the Khao Luang National Park.

In addition to the above, it is recommended that Surat Thani Airport be more improved in increasing the carrying capacity and strengthening the transport function. For this, a new terminal building to accommodate the increasing number of passengers should be constructed during this phase.

### 3) PHASE-III (1997-2001: 8TH NATIONAL PLAN)

Based on the results of the studies carried out during the preceding phase, a number of selected projects are recommended to be implemented. A more convenient sea-transportation system providing more attractive sea excursions with higher speed boats will need to be introduced. Similarly, the provision of air excursion routes to Samui Island and its surrounding islands may be introduced.