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JAPAN INTERNATIONAL COOPERATION AGENCY

# WINER

VOLUME 1

FEASIBILITY STUDY

DECEMBER 1978

FINAL REPORT

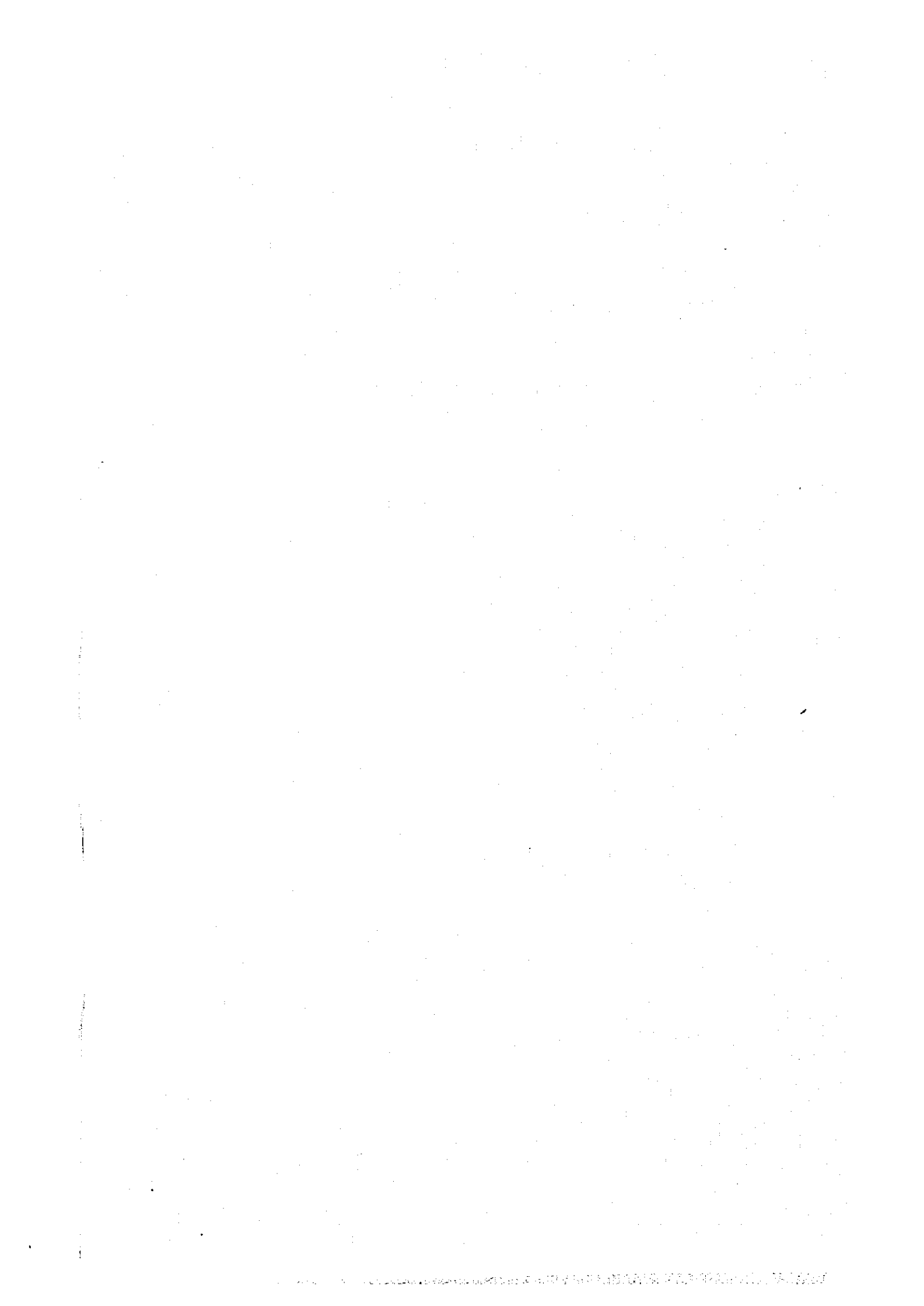
## PATTAYA TOURISM DEVELOPMENT



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**JAPAN INTERNATIONAL COOPERATION AGENCY**

# WINER

**VOLUME 1**

**FEASIBILITY STUDY**      **DECEMBER 1978**      **FINAL REPORT**

# **PATTAYA TOURISM DEVELOPMENT**

No. 13790

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国際協力事業団	
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## P R E F A C E

In response to a request of the Government of the Royal Kingdom of Thailand, the Government of Japan decided to take up a feasibility study on the Pattaya Tourism Development Project, which is a part of the overall tourism development plan for the Kingdom. The study was conducted by the Japan International Cooperation Agency (JICA).

The objective of the study is to provide the Government of Thailand with a feasibility study for orderly development of Pattaya Tourism Project, one of the most important tourism projects in Thailand. The study has been executed in accordance with the agreed scope of work, and is divided into two main stages of work: The first stage for the preparation of master plan, and the second stage for the preparation of a feasibility study. A report on the master plan in the first stage was submitted to the Government of Thailand in December 1977.

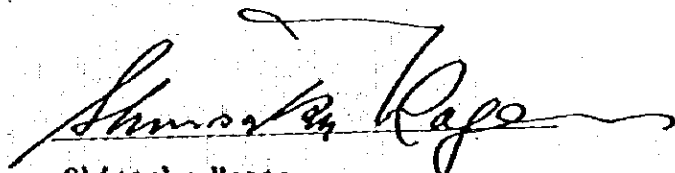
Following the preparation of the master plan in the first stage, JICA started to conduct a feasibility study on the second stage which covers sewerage system, solid waste collection and disposal system, road and street system, port and marine facilities, and storm water drainage system.

With the cooperation of Thai counterparts, the survey team conducted a field survey during the period of December 19, 1977 to February 11, 1978 and May 10, 1978 to June 30, 1978. On the basis of the above field survey, further studies at our home office in Tokyo, and discussion with Thai officials, a feasibility study has been completed and thereupon a report is now ready for submission.

I hope that this report will contribute to the socio-economic development of the Royal Kingdom of Thailand, and to further enhancement of the friendly relations happily existing between our two countries.

I wish to express my heartfelt appreciation for the cooperation and hospitality extended to the survey team by the competent authorities of Thailand and the people concerned.

December 1978



Shinsaku Hogen  
President





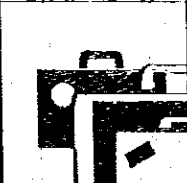
JAPAN INTERNATIONAL COOPERATION AGENCY

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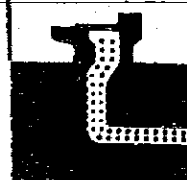
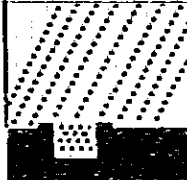
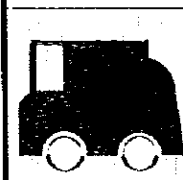




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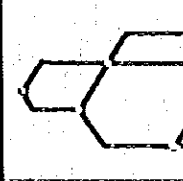

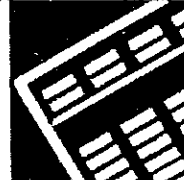
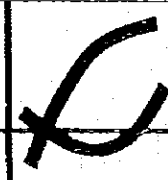
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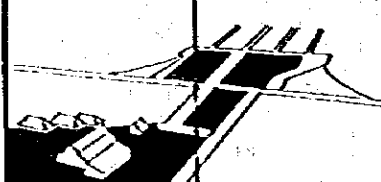
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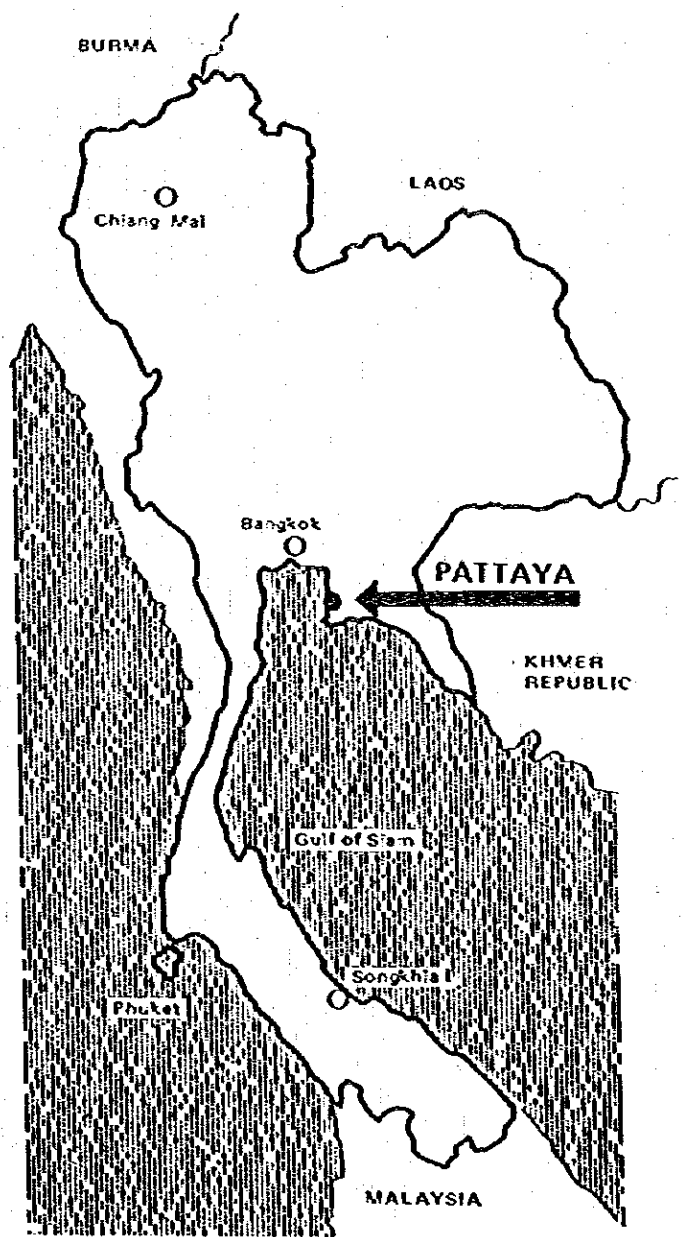
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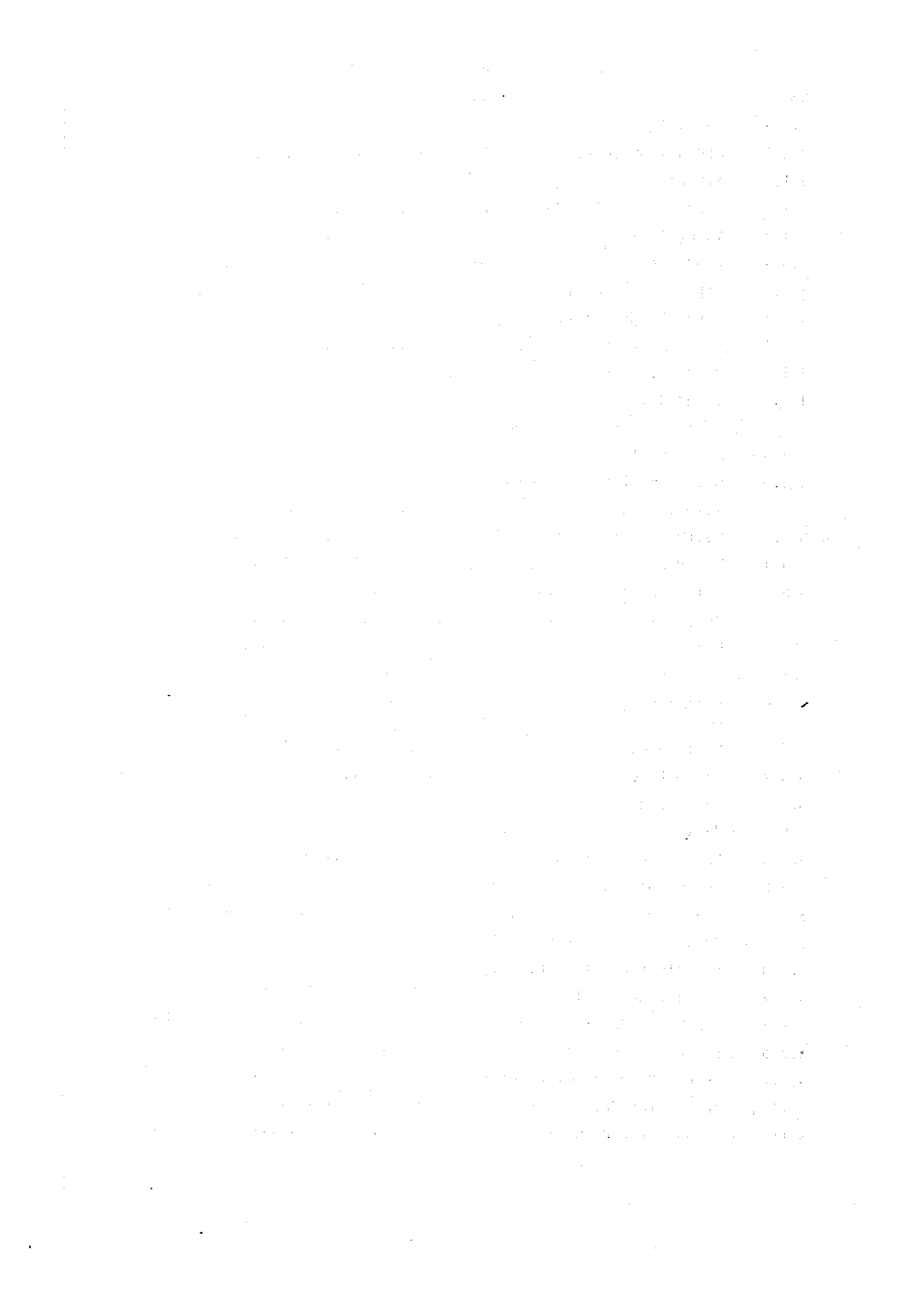
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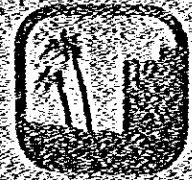
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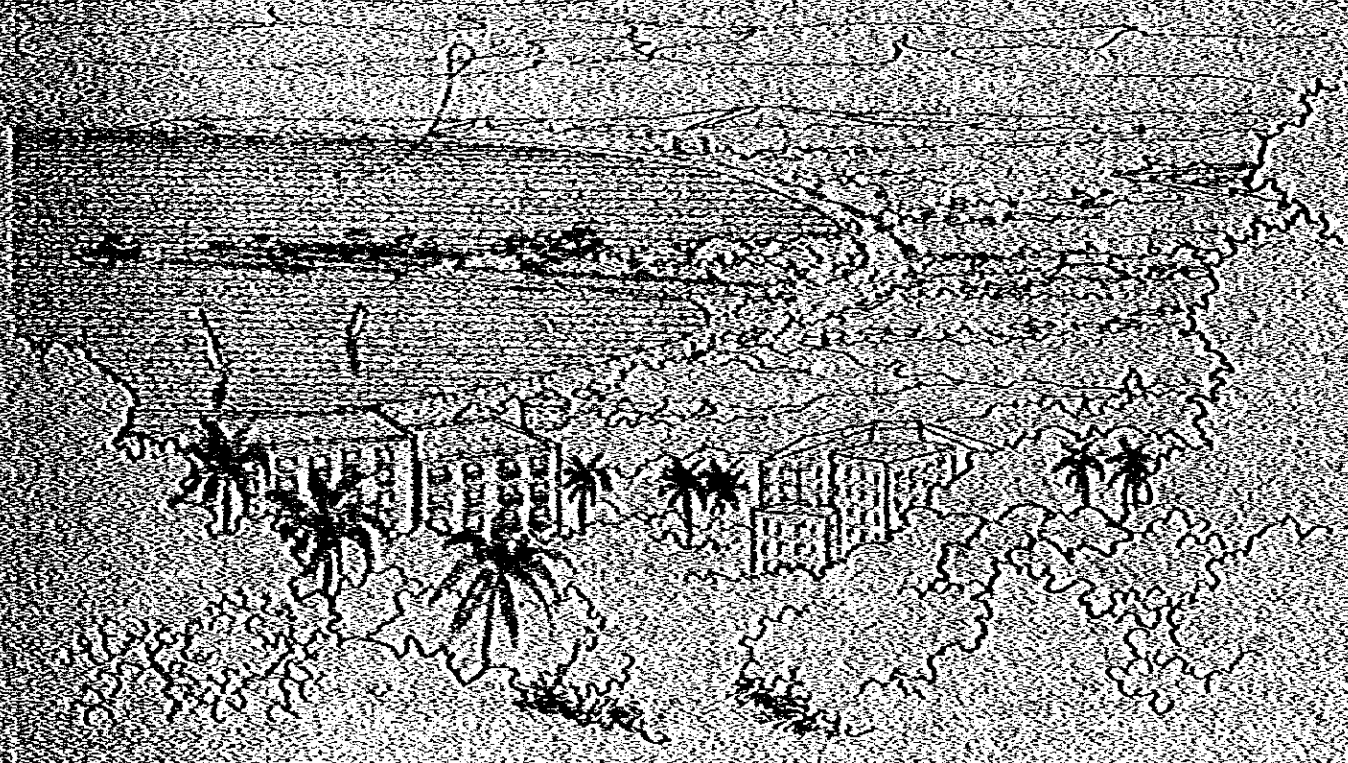


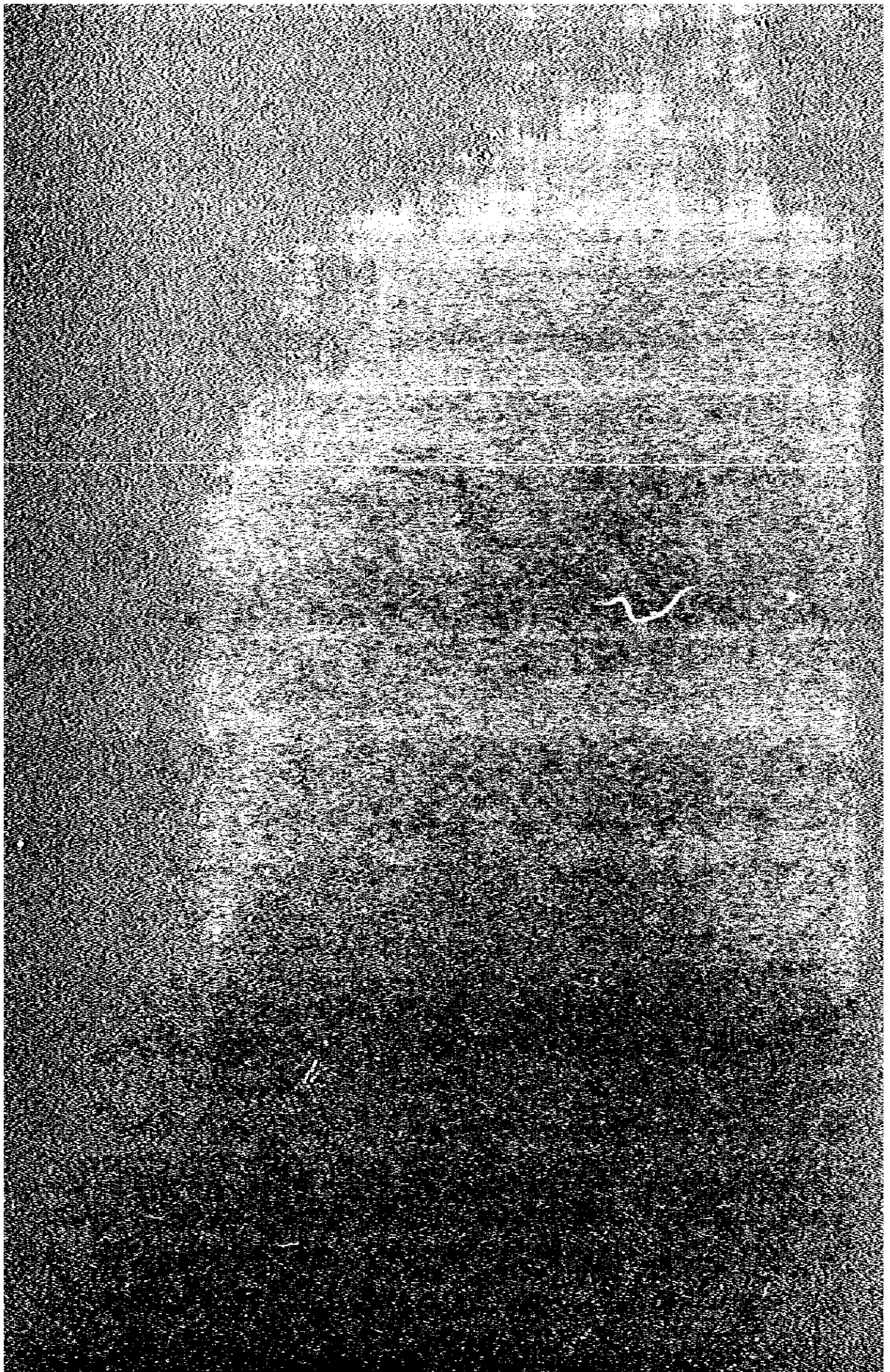
# CHAPTER 1

# INTRODUCTION



1. GENERAL PROJECT AREA BACKGROUND
2. THE STUDY BACKGROUND
3. SCOPE OF WORK
4. TEAM FORMATION OF ADVISORY COMMITTEE, STUDY TEAM AND THAI COUNTERPARTS
5. ACKNOWLEDGEMENT
6. ORGANIZATION OF THE REPORT AND MAIN MODIFICATION FROM MASTER PLAN
7. CONCLUSION OF FINANCIAL AND ECONOMIC STUDY





## CHAPTER 1. INTRODUCTION

### 1.1 General Project Area Background

Tourism has become one of the major sources of foreign exchange earnings for Thailand. Especially Pattaya is one of the most important international tourist resorts in the Kingdom. However, due to the lack of an integrated comprehensive development plan, an imbalance has developed between the supply and demand of facilities, particularly of the infrastructure, to such an extent that it has become a very acute problem in recent years.

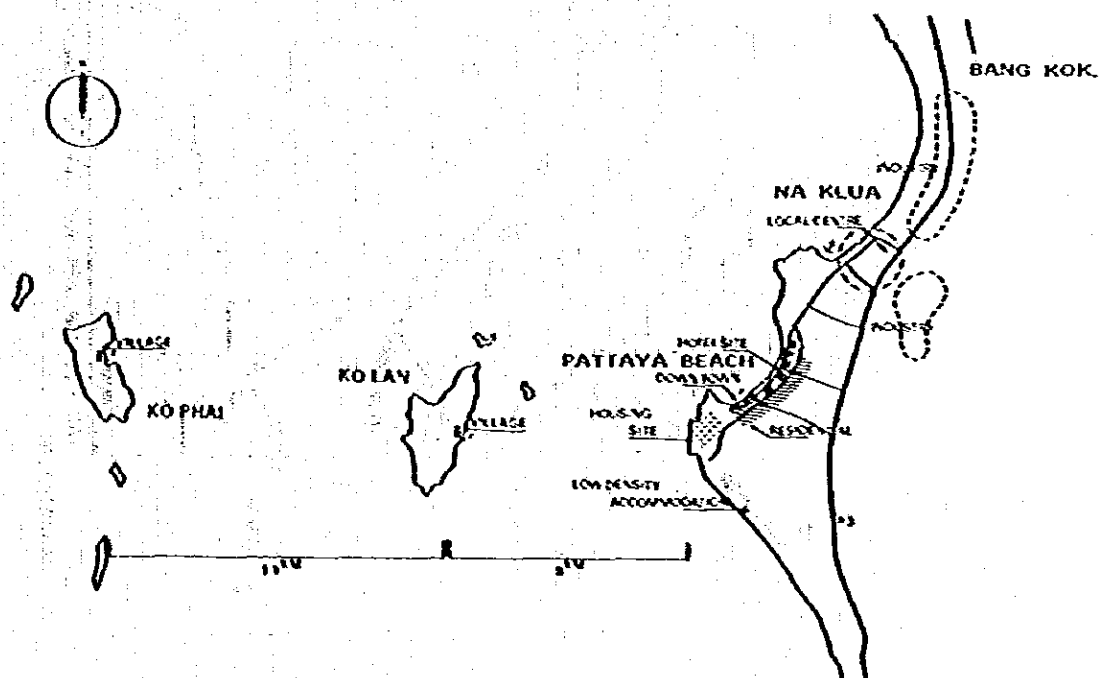
The Pattaya project area is a newly developed seaside resort on the east coast of the Gulf of Thailand, some 150km south of Bangkok. The study area includes the strip of existing tourist service facilities along the coastal area and the islands of Ko Lan and Ko Phai.

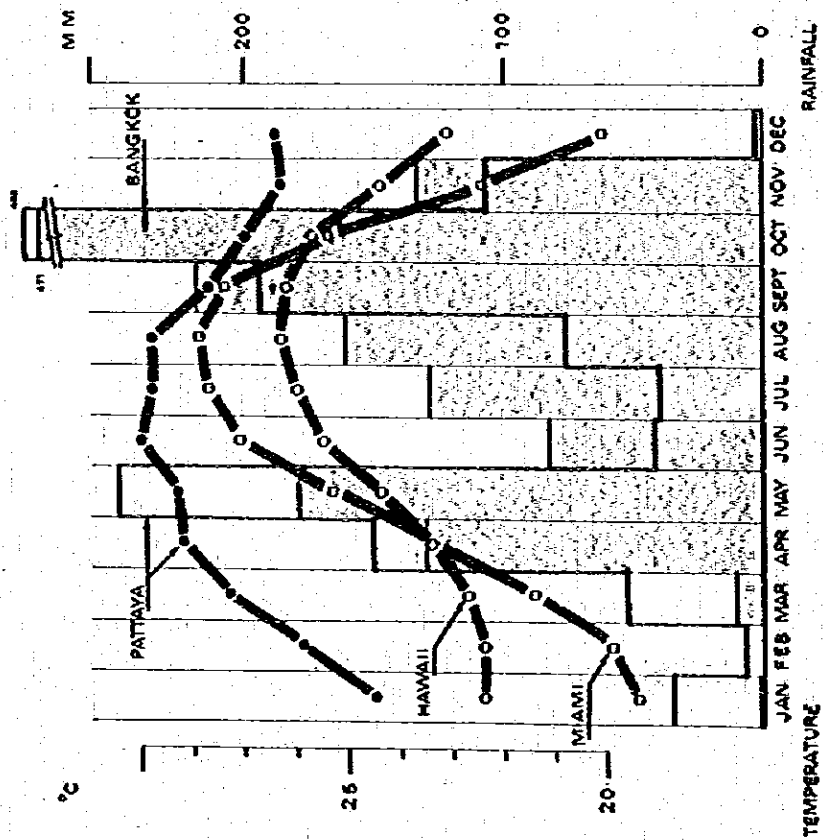
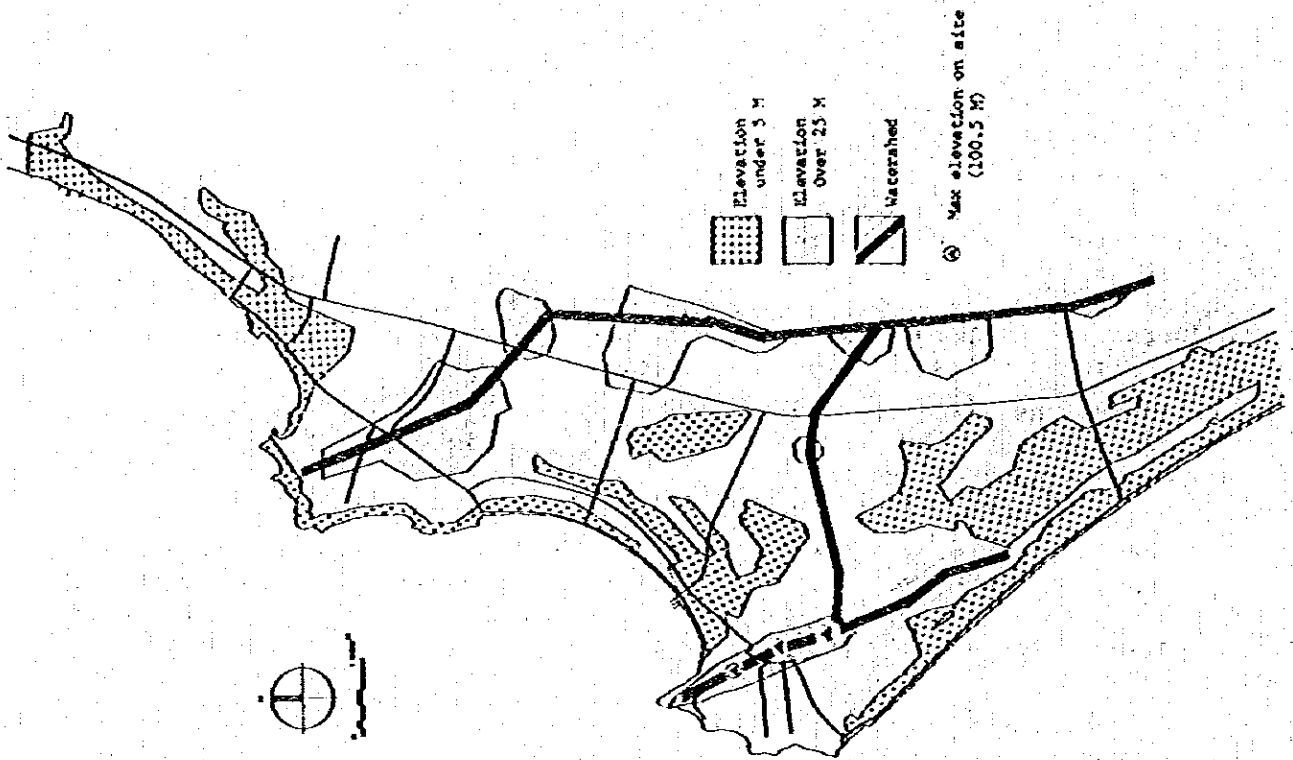
The general topographical feature of the study area is its overall flatness, with the exception of the small Pattaya Hill area towards the south. In spite of being in the tropical rain forest zone, it has a favorable climate for a beach resort with an annual average temperature of about 27°C.

The current population of this area is about 42 thousand, of which about 17 thousand are employed. Although agricultural land occupies 63% of the total area, agriculture together with fisheries take up only 11% of the employed population, while the service related sector occupies about 87%.

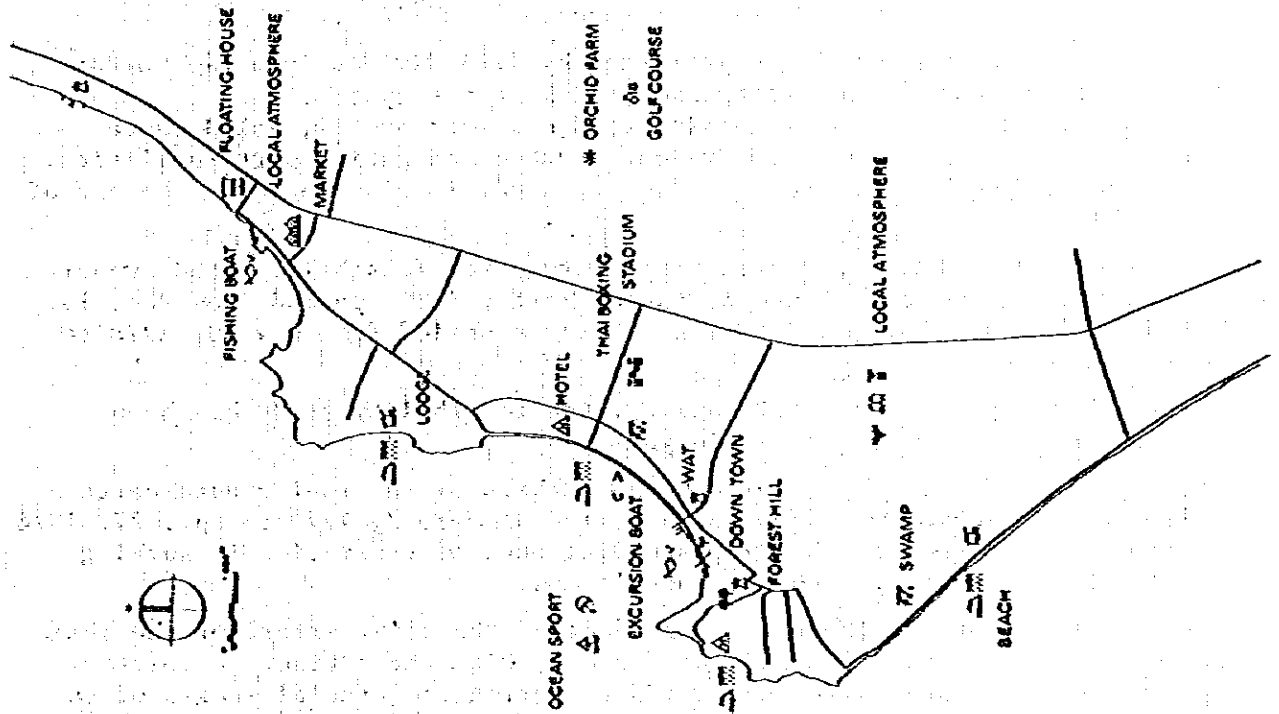
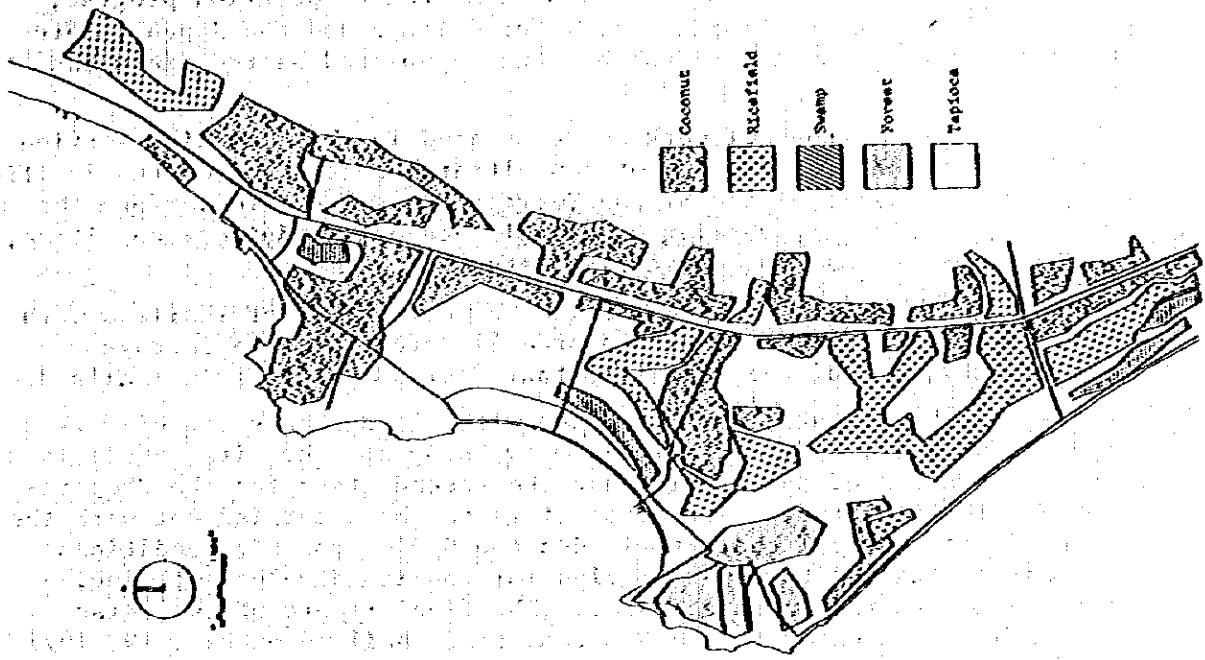
The tourist facilities include 11 major hotels in Pattaya with a total capacity of nearly 2,800 tourist class accommodations and a manpower of nearly 4,400 employees. The total capacity of minor hotels and bungalow type facilities amounts to another 800 accommodations.

Detailed descriptions of physical characteristics and socio-economic conditions of the area are documented in the Master Plan and summarized in the following figures.









## 1.2 The Study Background

The Japanese Government, as part of its technical cooperation program, decided to carry out the tourism study for Pattaya and the Japan International Cooperation Agency (JICA) has been appointed as the executing agency.

Based on the agreed scope of work as documented in the following section 1.3, JICA appointed a consortium of consultants, consisting of the Pacific Consultants International and Nippon Tetrapod Co., Ltd., to perform the study. The Consultants, working under guidance of an advisory committee, dispatched a study team to commence the study.

The objective of the study is to provide the Government of Thailand with feasibility study for successful and orderly development in Pattaya Tourism Project, one of the most important tourism projects in Thailand.

The study will be executed in accordance with the agreed scope of work and the study is divided basically into two stages. The first stage is for the Preparation of Master Plan and the second stage for the Preparation of Feasibility Study. The first stage has been carried out with the analysis of the physical characteristics and Socio-economic conditions of the region, leading to a master plan for tourism development, including landuse and infrastructure system. The final report of the first stage have been presented to the Government of Thailand on Dec. 19, 1977.

Following the completion of 1st stage master plan, JICA has started the feasibility study as the second stage. In accordance with the agreement of both Governments, the second stage study to be executed by JICA consists of sewerage system, solid waste collection and disposal system, road and street system, port and marine facilities, and storm water drainage system. Other systems such as water supply system, electric power supply system etc. are to be executed by the Government of Thailand.

The second stage study to be performed by JICA divided into two parts; one part is of sewerage system and road & street system. The other part is of the remaining road & street system, solid waste disposal system, storm water drainage system and marine port facilities. The completion date of the second stage study is planned to be the end of Dec. 1978.

The survey team has undertaken field survey for feasibility study under the assistance of our counterparts for Part I for a period from Dec. 19, 1977 to Feb. 11, 1978, and for Part 2 for a period from May 10, 1978 to June 30, 1978.

After the completion of field survey, the feasibility study has been carried out at home office in Tokyo.

During the work period in Tokyo seven members of the Thai counterparts also came to Tokyo two times for a period of Mar. 2, 1978 to Apr. 27, 1978 & Sep. 3, 1978 to Oct. 23 1978, spending much of their time in working together on the study with the consultants.

This draft report is therefore a product of the joint effort of the Thai counterparts and the consultants in Japan, with the advisory committee providing necessary advice and guidance during the crucial stages of the study. The report presents the final picture of the resort of Pattaya after implementation of the various masterplan projects to fulfill future requirements, both in the landuse and the infrastructure respects. It is believed that the report will provide a necessary and sufficient guideline for the development of the important resort of Pattaya to cater to future increase demand of international tourists, and contribute towards the development of the tourism industry in Thailand.

### 1.3 Scope of Work

The scope of work agreed between the Government of Thailand and Japan is as follows.

#### 1. Introduction

In response to the request of the Government of Thailand, the Government of Japan has decided to conduct a study of "Pattaya Tourism Development Project" in accordance with laws and regulations in force in Japan, and the Japan International Cooperation Agency (JICA), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will carry out the study.

The project was selected by the Government of Thailand in consideration of the report on the tourism development which was submitted by the World Bank in May 1975.

The present documents set forth the scope of work in regard to the above mentioned study which is to be carried out in close cooperation with the Government of Thailand and authorities concerned.

#### 2. Objective of the Study

The JICA conducted the preliminary survey on Tourism Development Project in Pattaya area in October 1976, and will carry out the master plan study successively as well as feasibility study of 1st phase projects which will be suggested as priority projects in the conclusions and recommendations of the master plan.

#### 3. Outline of the Survey and Study

The study work is composed of two stages, the first stage is for the master plan study and the second one for feasibility study.

The study of master plan includes the following contents;

- A. Physical characteristics
- B. Socio-economic conditions
- C. Tourism development
  - present and future demand and supply analysis including the optimum capacity of Pattaya as a tourist destination
  - tourism facilities
  - tourism industries
  - transportation and communication facilities
- D. Land use
  - land use plan
  - zoning regulations
  - development control
- E. Infrastructure
  - water supply system
  - road network system
  - drainage and sewerage system

- solid waste collection and disposal system
- others
- F. Organization for execution and operation
- G. Training plan
- H. Legislation
- I. Conclusions and recommendations

\* at the scale of 1 : 10,000 showing

The feasibility study of 1st phase projects is to be conducted in line with the frame-work set in the master plan, based on the conclusions and the recommendations. The objects and scopes of the feasibility study are decided in examining the result of the master plan study.

The feasibility study includes the following contents;

- A. Technical feasibility
- B. Design and layout
- C. Implementation method, schedule and operation plan
- D. Cost estimation
- E. Economic and financial evaluation
- F. Conclusions and recommendations

\* at the scale of 1 : 2000 showing

#### 4. Reports

The JICA will prepare and submit 50 copies of the following reports to the Government of Thailand in the course of the master plan and feasibility study.

##### A. Master Plan

###### 1) Inception report

At the beginning of field survey of master plan study.

###### 2) Progress report

At the end of field survey of master plan study.

###### 3) Interim report

Within 4 months after the completion of field survey.  
The Government of Thailand is requested to provide the JICA with its comments within one month after the receipt of interim report.

###### 4) Final report

Within 4 months after the receipt of comments on interim report.

## B. Feasibility Study

### 1) Interim report

Within 3 months after the completion of field survey. The Government of Thailand is requested to provide the JICA with its comments within one month after the receipt of interim report.

### 2) Final report

Within 3 months after the receipt of comments on interim report.

## 5. Undertaking of the Government of Thailand

- 1) To provide the study team with data and information necessary for study.
- 2) To exempt the study team from the taxes and duties on the materials, equipments and personal effects brought into Thailand by the team. This is normally applied to the Colombo Plan experts.
- 3) To appoint the official counterparts of the team during survey period.
- 4) To provide the team with suitable office space with necessary equipment for the study.
- 5) To make necessary arrangements for the team to bring the data and materials concerning the study into Japan.
- 6) To provide the team with necessary facilities and means for the study such as vehicle, boat, helicopter, photo-copier, type writer, calculator, etc.

## 6. Undertaking of the Government of Japan

- To transfer the knowledge to the counterpart personnels during the study.



#### 1.4 Team Formation of Advisory Committee, Study Team and Thai Counterparts

The formation of the advisory committee, the study team which participated in the field studies and the Thai counterparts who came to Japan are as follows:

##### (a) Advisory Committee

1.	Chairman	Mr. Mikio Sudo	Executive Director Japan National Tourist Organization
2.	Member	Mr. Yoshiro Hitosugi	Urban Bureau, Ministry of Construction
3.	Member	Mr. Takeshi Kawashima	Tourism Department, Ministry of Transportation
4.	Member	Mr. Yukio Nishida	Harbour Bureau, Ministry of Transportation
5.	Member	Mr. Gokichi Ogawa	Tourism Department, Ministry of Transportation
6.	Member	Mr. Hiromichi Sakamoto	Environment Sanitation Bureau, Ministry of Health and Welfare
7.	Member	Mr. Koichi Shimizu	Ministers Secretariat Ministry of Construction
8.	Member	Mr. Mitsuyoshi Ozawa	Environment Div., Environment Health Bureau, Ministry of Health and Welfare
9.	Member	Mr. Yasutake Kameda	River Basin Sewerage Div., City Bureau, Ministry of Construction
10.	Coordinator	Mr. Yoichi Seki	Japan International Cooperation Agency

##### (b) Study Team

(1)	Project Manager	Mr. S. Fukagawa	Pacific Consultant International
(2)	Deputy Project Manager	Mr. M. Aremiya	Pacific Consultant International
(3)	Member	Mr. K. Fujita	Pacific Consultant International
(4)	Member	Mr. K. Nakahara	Pacific Consultant International
(5)	Member	Mr. T. Asakawa	Nippon Tetrapod Co., Ltd.
(6)	Member	Mr. E. Ueno	Pacific Consultant International
(7)	Member	Mr. T. Okado	Pacific Consultant International

- |      |        |                  |                                     |
|------|--------|------------------|-------------------------------------|
| (8)  | Member | Mr. E. Nishigori | Pacific Consultant<br>International |
| (9)  | Member | Mr. M. Kondo     | Pacific Consultant<br>International |
| (10) | Member | Mr. S. Haruta    | Nippon Tetrapod Co., Ltd.           |
| (11) | Member | Dr. M. Sago      | Pacific Consultant<br>International |
| (12) | Member | Mr. K. Kawaguchi | Pacific Consultant<br>International |
| (13) | Member | Mr. S. Sakaguchi | Pacific Consultant<br>International |
| (14) | Member | Mr. S. Watabe    | Pacific Consultant<br>International |
| (15) | Member | Dr. T. Endo      | Nippon Tetrapod Co., Ltd.           |
| (16) | Member | Mr. Y. Tsuji     | Pacific Consultant<br>International |
| (17) | Member | Mr. H. Fujiwara  | Pacific Consultant<br>International |
| (18) | Member | Mr. N. Tsukanoto | Pacific Consultant<br>International |

(c) Thai Counterparts

- |     |                            |   |
|-----|----------------------------|---|
| (1) | Mr. Tanasak Rojanasoonthon | Chief<br>Planning Division, TOT             |
| (2) | Mr. Annuey Netayasubha     | Planning Division, TOT                      |
| (3) | Mr. Montri Jantrupon       | Planning Division, TOT                      |
| (4) | Mr. Prakarn Meksupa        | Department of Town and<br>Country Planning  |
| (5) | Mr. Mana Jotikapanich      | Department of Public Works                  |
| (6) | Mr. Tanong Tantiteevawit   | Office of the National<br>Environment Board |

Following members visited Japan

- |     |                              |   |
|-----|------------------------------|---|
| (1) | Mr. Montri Jantrupon         | Planning Division, TOT                      |
| (2) | Mr. Santichai Euachongprasit | Planning Division, TOT                      |
| (3) | Mr. Somsak Taechawasungoo    | Planning Division, TOT                      |
| (4) | Mr. Jin Rojanavitholkarn     | Planning Division, TOT                      |
| (5) | Mr. Mana Jotikapanich        | Department of Public Works                  |
| (6) | Mr. Prakarn Meksupa          | Department of Town and<br>Country Planning  |
| (7) | Mr. Tanong Tantiteevawit     | Office of the National<br>Environment Board |



## **1.5 Acknowledgement**

In the course of the study, much valuable assistance, cooperation, advices and conveniences was accorded to the study team during their stay in Bangkok, by the various government departments and agencies and also private enterprises, starting with Col. Somchai Hiranyakit, Director General, TOT, and Mr. Dharnoon Prachuabnoh, Deputy Director General, TOT. Without their cooperation, the study would not have been performed so successful, and we are most grateful to all who contributed to the successful completion of the study. The list of individual names will be too long to be presented here, but we shall endeavor to list the organizations, the members of which we owe our gratitude, in the following:

- 1. Tourist Organization of Thailand**
- 2. Department of Technical and Economic Cooperation**
- 3. Department of Fisheries**
- 4. Department of Public Works**
- 5. Communication Authority of Thailand**
- 6. Department of Highways**
- 7. Office of the National Environment Board**
- 8. Pattaya Resort Associations**
- 9. Office of The National Economic and Social Development Board**
- 10. Town and City Planning Bureau**
- 11. Department of Harbor**
- 12. Department of Post and Telegraphy**
- 13. Department of Hydrography**
- 14. Head of Bang Lamong District**
- 15. Department of Industrial Works**
- 16. Department of Administration**
- 17. Department of Mineral Resource**
- 18. Marine Police Division**
- 19. Local Water Supply Division**

## 1.6 Organization of the Report and Main Modification from Master Plan

### (a) Organization of the Report

Final report is composed of the following six parts.

- Summary of Final Report
- Volume 1. Project Background and Requirements
- Volume 2. Technical Aspects of the Infrastructure Projects
- Volume 3. The Project Evaluation and Implementation
- Drawings
- Appendix.

Volume 1 of this report deals with the following subjects.

1. Review and clarifications of the requirements of the Master Plan.
2. Identification of the modifications of the Master Plan.
3. Effects of the current developments and the forecasted impact.

Essential information regarding tourism demand, development policy and concepts and the development plans of the various tourism and tourism related areas was extracted from the master plan to clarify the basic requirements for the feasibility study for the infrastructure. The degree of details of the information extracted varies according to the needs of the related topic. Therefore, if desired information is not found in this volume, reference to the master plan for further detail is recommended.

Infrastructure plans and beach improvement plans are not included in this volume since these subjects are fully described in the individual infrastructure section of volume 2. Also, the items of study related to the local street system in the residential area are excluded for the same reason.

In the section of "Tourism Demand", forecasts of demand are extended to 20 years, and in the section of "Development Plan", phase 2 development items are eliminated to focus on phase 1 (up to 1986) infrastructure plans for the feasibility study.

### (b) The Modifications of the Master Plan

The main modification from Master Plan made during the feasibility study are summarized as follows:

#### 1) Planning

No major changes have been made, only minor changes in the residential area, where a comprehensive study was undertaken, the proposal of an ocean related museum in the main pier area in phase 1 instead of by the southern pier in phase 2, and change of the scale of packing and commercial facilities in the Northern core due to the elimination of northern pier. Overall requirements for the feasibility study have remained the same, as summarized in Chapter 2 and Chapter 3. The cost estimate in section 3.12 has been modified according to the new requirements based on the study.

#### 2) Marina and port facilities

- Time of the construction of the pier at Northern core is changed to phase 2 from phase 1 for review due to the unfavorable physical

condition found in the latest field survey.

- The number of berths for the main pier has been reduced, together with the implementation of a new service system.
- Layout of the main pier is changed to the modified type from island type. As a result, more facilities will be provided on reclaimed land than in the island type.

### 3) Road and street system

Minor revisions come from planning considerations and the need for proper technical applications. The items revised are listed as follows:

- The local street network has been modified on the basis of the detail local street network study.
- The implementation of the back roads was shifted to stage 1 (up to 1981) of phase 1 (up to 1986) development.
- Present permanent structures have been taken into consideration in determining the route of the road.
- A new Baht Bus route has been established by a private organization and evaluation of the route in respect of the land use plan and the proposed local street network was performed.
- To improve the existing beach road as a pedestrian promenade, various alternative plans were evaluated and the best solution established together with proper measures and ancillary facilities such as bike parks, snacks, toilets, parking, etc.
- Studies of the street lighting, traffic signals and landscape considerations were made to secure the safety of drivers and pedestrians as well as for aesthetic considerations.
- Further detailed study of the road network in Ko Lan was carried out.

### 4) Storm water drainage system

- Existing surface water streams and natural reservation capacities of swamp and low land area are fully utilized, so that the natural beauty of the environment will be maintained and the construction costs are reduced.
- The drainage system in the central park is also treated as a part of the park system, maintaining the water level in the ponds in the drainage system.

### 5) Solid waste disposal system

- Relocation of the dumping site to an area where less environmental impact is expected and away from the railroad station which might be built in the future.
- Evaluation of the durability of garbage collection cars was made.
- Careful consideration was made of the collection system for solid waste from the beach, park, and public facility areas.

6) Sewerage system

- The discharge route and system has been studied in detail based on the latest evaluation.
- The number of pumping stations is reduced in the feasibility study.

7) Electric power supply and telecommunication system

As concluded in the Master Plan, the priorities of these projects are lower than other infrastructure projects. Both the Thai and Japanese governments agreed that the above two projects would not be considered in the feasibility study.

8) Water supply system

It is considered by the Thai Government that the feasibility study for the water supply system has already been finished and it is in the stage of detail design and it is planned that it will be carried out by the Thai Government. Therefore, the water supply system is not included in the feasibility study. However, as the water supply is considered to be the key infrastructure item in evaluating the Pattaya tourism development, alternative economic and financial studies including the water supply system are added for reference purposes in this study.

The detailness and accuracy of the water supply section in this study, when compared with other infrastructure items, do not fulfill the accuracy requirements of the feasibility study. This is because the water supply study had been made out solely from the Master Plan recommendation.

(c) Advice for environmental protection against other development projects

The Pattaya tourism development area is facing very delicate and difficult problems in respect of national, regional and local policy making. Since the submission of the Master Plan, various development projects have been reportedly announced, although most of them have not yet been implemented. In addition to the Laem Chabang deep-sea port project as mentioned in the Master Plan, the Sattahip commercial sea port, the Sattahip commercial cargo airport project, the industrial estate development between Sattahip and Laem Chabang (inland site from the Sukhumvit Hwy), the gas pipeline project, the Ko Sichang deep-sea port project, etc. are mentioned. All these projects might influence the future of Pattaya with respect to natural and tourist resources, environmental problems and the social and economic structure of the region. The overall national development policy for the region may determine the future of the region, including Pattaya. However, from the standpoint of Pattaya Tourism Development, a careful assessment of various points related to the tourism area has to be carried out in relation to all these projects.

In any case, there are no definitive programs for these projects yet and without knowing the types of industries or the scale of facilities that may be introduced, the effect of the operation of these projects on the environment in the Pattaya area cannot be correctly assessed.

However, it is strongly recommended that in the event of implementation of these various projects, it is necessary and of great importance that careful deliberation be made regarding the types of industries that should be approved for investment. The main considerations from the point of view of the land and sea environment will be that the industries to operate in the area should not cause any pollution through noise, smoke, gas, dust or solid waste in addition to general aesthetic considerations. It is of the utmost importance that the regulations on environmental conservation or preservation should be strictly imposed.

## 1.7 Conclusion of Financial and Economic Study

A conclusion of economic and financial evaluation of the project is briefly described here. According to the results of the feasibility study, the project was found to be sound and feasible from technical, economical and financial viewpoints.

The method of economic analysis that was employed in the master plan was changed in this study. For example, economic benefit, in the master plan, was obtained by summing up two categories of benefits, such as gross operating profit of the tourism industries and net foreign exchange earnings.

In this feasibility study, the former category is included, however, the latter is excluded from economic benefit to prevent any double counting. This is because benefits of both categories are generated from the same source, which is the total expenditures made by the tourists in Pattaya. As a result of Economic Analysis, the return obtained is 15.3%.

Therefore, the viability of the project could be justified from an economic viewpoint. Moreover, when attention is paid to factors such as, benefits earned from public sector, large amount of foreign exchange earnings, increased employment of laborers and increased income effect to be produced by the project, this project is considered as one of the projects to be strongly implemented by the Government in the standpoint of national economy.

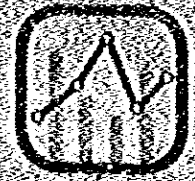
As a result of Financial Analysis, the return obtained is 3.8%. This value is relatively low. However, as this project involves public works for establishment, improvement of infrastructures, and rural as tourism development, a return of this level is inevitable. Therefore, it could be justified that this project is feasible from a financial viewpoint of the organization to implement the projects.

Other details and the assumed conditions of financial and economic analysis are described in Volume 3, Chapter 3 and Chapter 4.



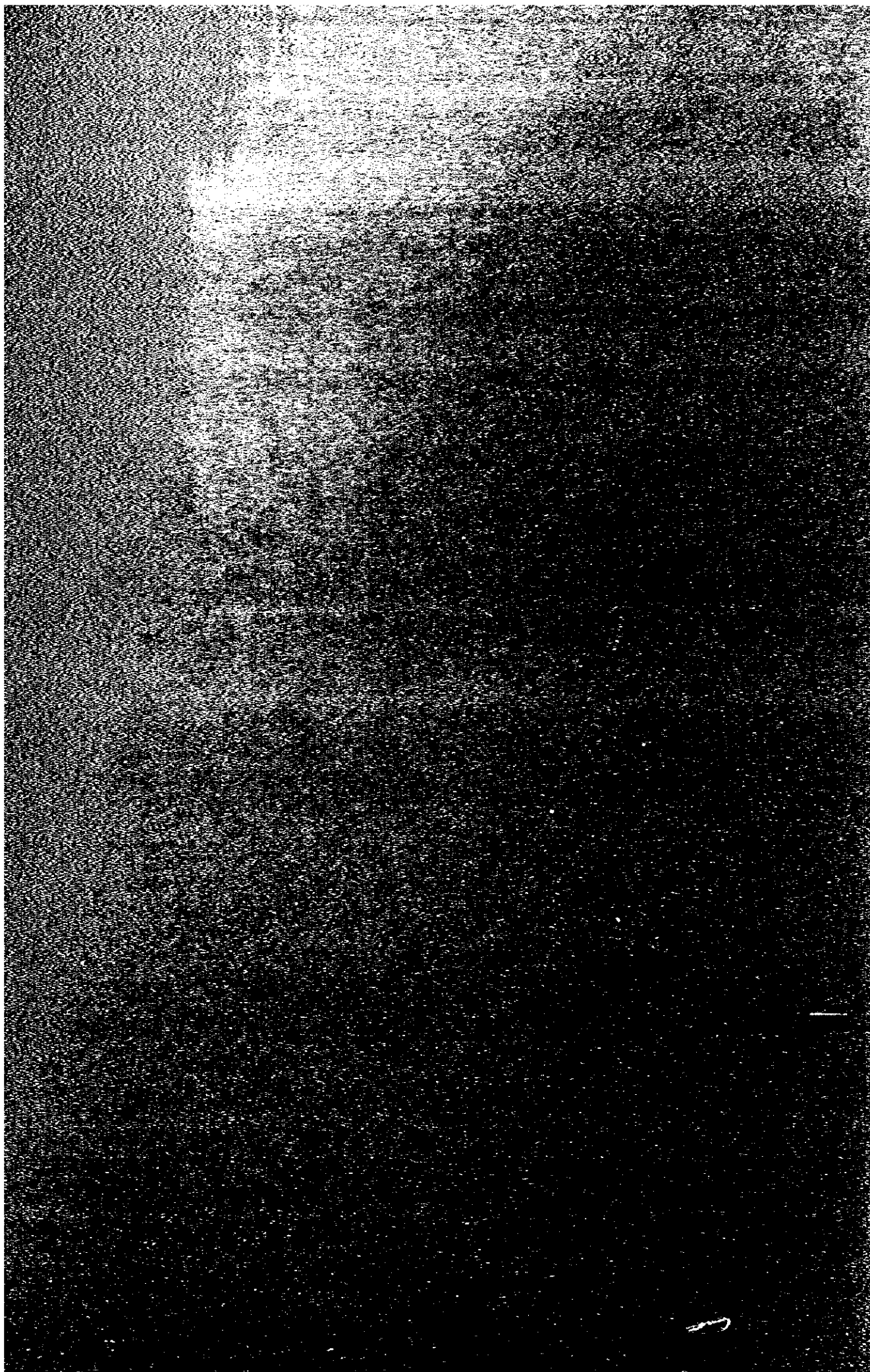
## CHAPTER 2

# TOURISM DEMAND



1. GENERAL TOURISM TRENDS
2. TOURISM DEMAND IN THAILAND
3. TOURISM DEMAND IN PATTAYA
4. HOTEL ROOM REQUIREMENTS







## CHAPTER 2. TOURISM DEMAND

### 2.1 General tourism trends

1. Since the early nineteen fifties, international tourism has enjoyed a period of rapid and steady growth so that the total number of international tourist arrivals has grown from 131 million in 1966 at a steady average annual growth rate of 5.6% to reach 213 million in 1975.

International tourist receipts have also grown correspondingly from US\$12.5 billion in 1966 to US\$29 billion in 1974, for an average annual growth rate of 11.1%.

Europe and the Americas are traditionally the major tourist receiving regions of the world. In 1974, about 71% of international tourists were received by Europe while the Americas catered for about 22%. However, the share of the Pacific and Asia region has been on the increase from 1.9% in 1966 to 3.3% in 1974.

2. The number of tourist arrivals in Thailand has rapidly increased from 225 thousand in 1965 to 1,098,000 in 1976, at a phenomenal average annual growth rate of 15.5%. The million mark was reached in 1973, when Thailand ranked third in the Pacific and Asian region in the number of international visitors received. In 1975, Thailand was slightly exceeded by Malaysia and ranks fourth in the Pacific and Asian region in the volume of international arrivals.

According to the latest 1977 statistics, Thailand received about 1.22 million visitors and maintained the same 4th rank, only 70,000 visitors less than 3rd ranked Malaysia.

3. The major countries of origin of international arrivals in Thailand in recent years were Malaysia, Japan, the U.S., Western Europe and Australia.

There is no conspicuous seasonal fluctuation in international tourist arrivals throughout the year, although the months of January through April, and August, November and December are generally the peak months. This is due to the offsetting seasonal patterns of the major tourist generating countries.

4. The average length of stay of international visitors in Thailand has lengthened steadily from 3 days in 1960 to reach 5 days in 1976.

The average expenditure per visitor in 1975 was US\$37.85, of which about 50% went for food and accommodation, 26% for shopping and 24% for sightseeing, transportation and other goods and services.

Table 2.2.1 Forecast of visitors to Thailand (1975-1980)

(In thousands)

		Actual 1975	Forecast 1980	Average annual increase (%) 1975 - 80
World Bank		1,180	2,020	11.4
PATA Development Authority		"	2,175	13.0
Netherlands Institute of Tourism Development Consultants		"	2,200	13.3
Dr. Bullockas		"	3,650	25.3
Boeing	Low Estimate	"	2,716	18.1
	High Estimate	"	3,674	25.5
Dr. Baron	Low Estimate	"	1,550	5.6
	Medium Estimate	"	1,900	10.0
	High Estimate	"	2,550	16.7
Tourist Organization of Thailand		"	1,733	8.0

Note. Source: Tourist Organization of Thailand

## 2.2 Tourism demand in Thailand

### 2.2.1 Perspective for World Tourist Volume

International tourist arrivals have been increasing at an average annual rate of 5.6% from 1966 to 1975 as stated above. Although there was a slight decrease in 1974 due to the global recession caused by the energy crisis, tourism has already recovered from this.

The long-term prospects regarding the world volume of tourism are difficult to forecast because of the difficulty in estimating the prospects of the growth in per capita real income of all nations in the world, changes in the competitiveness of world destinations and other uncertain factors.

The World Tourism Organization made a forecast of the future world tourist volume in its "Pilot Study on Long-Term Forecasts" and the results are summarized below.

#### International tourist arrivals forecast for the world (by the World Tourism Organization)

	<u>1975 (actual)</u>	<u>1980</u>	(in thousands) <u>1990</u>
Arrivals	213,000	261,000	350,000
	1966-75 5.6	1975-80	1980-90
	1970-75 4.7	4.1	3.0

Taking into account the forecast figures and the analysis of economic indices of tourist-generating countries such as growth of gross domestic product, per capita national income, population and international balance of payments, international tourist arrivals for the year 1996 are forecasted at 417 million, implying an average annual increase of 3.3% from 1975 to 1996.

As for forecasting arrivals by region, it is predicted that Europe and the Americas will continue to be the major tourist-receiving countries, but the position of the Pacific and Asian region will increase somewhat as the countries of the region grow economically.

### 2.2.2 Perspective for Tourism in Thailand

Regarding the prospects of growth in the number of tourist arrivals to Thailand over the next five years, many studies have been carried out so far, which are shown in Table 2.2.1.

According to this, the highest estimate for 1980 is 3,674 thousand arrivals according to Boeing, and the lowest estimate is 1,550 thousand according to Dr. Baron. Some of these high estimates were due to the fact that the studies were carried out in the highly prosperous days before the energy crisis, before economic activities settled down at the present stabilized pace.

On the basis of the above analysis, the long-term perspectives for international tourist arrivals in the world, the Pacific and Asian region, and Thailand are shown in Table 2.2.2. According to this forecast, tourist arrivals for Thailand are expected to reach 1,600,000 in 1981, 2,000,000 in 1986, 2,500,000 in 1991, and 3,000,000 in 1996 from 1,098,000 in 1976, implying an average annual increase of 5.2% from 1976 to 1996.

Table 2.2.2 Long-Term Forecast of International Tourist Arrivals

(in thousands)

	(actual) 1966	(actual) 1971	1975	1976	1981	1986	1991	1996
World (A)	130,597	181,280	213,000 <sup>1/</sup>	221,700 <sup>2/</sup>	268,300	309,300	360,500	417,000
% Average annual increase	-	1966 - 71 6.8	1966-75 5.6 1970-75 4.7 1971-75 4.1	1975 - 76 4.1	1975-80 4.1 1980-81 2.8 1976-81 3.9	1980-85 2.8 1985-86 3.1 1981-86 2.9	1985-90 3.1 1980-90 3.0 1990-91 3.0 1986-91 3.1	1990-95 3.0 1995-96 3.0 1991-96 3.0 1975-96 3.3 1976-96 3.2
of which Asia (B)	2,543	5,260	7,130 <sup>3/</sup>	7,420 <sup>4/</sup>	9,000	11,000	13,500	16,000
% Average annual increase	-	1966 - 71 15.6	1974-75 1.9 1971-75 7.9	1975-76 4.1	1976-81 3.9	1981-86 4.1	1986-91 4.2	1991-96 3.5 1975-96 3.9 1976-96 3.9
% $\frac{B}{A}$	1.9	2.9	3.3	3.3	3.4	3.6	3.7	3.8
of which Thailand (C)	285	639	1,180 <sup>5/</sup>	1,098 <sup>6/</sup>	1,600	2,000	2,500	3,000
% Average annual increase	1965 - 66 26.7	1966 - 71 17.5	1971 - 75 16.6	1975 - 76 (-) 6.9	1976 - 81 7.8	1981 - 86 4.6	1986 - 91 4.6	1991-96 3.7 1975-96 4.5 1976-95 5.2
% $\frac{C}{B}$	11.2	12.1	16.5	14.8	17.8	18.2	18.5	18.8

- Notes:
1. <sup>1/</sup> Actual
  2. <sup>2/</sup> Estimated on the basis of a 4.1% increase rate from 1975 to 1976
  3. <sup>3/</sup> World arrivals are estimated at 261,000 thousand in 1980, 300,000 thousand in 1985 and 35,000 thousand in 1990.
  4. <sup>4/</sup> Estimated on the basis of a 1.9% increase rate over the previous year, which is the same rate as the world arrivals increase from 1974 to 1975.

## 2.3 Tourism demand in Pattaya

### (a) Foreign and domestic tourism

Pattaya will contain the large possibility of further development as a resort area, especially southward, on the premise of appropriate development control.

The visitors to Pattaya can be roughly classified into two kinds, namely foreign tourists and residents that consist of foreign residents and domestic citizens who live mainly in Bangkok. According to the analysis of the destinations in Thailand of foreign visitors based on the expenditure survey by the Tourist Organization of Thailand from March, 1974, to February, 1975, about 19% of the visitors to Thailand went to Pattaya. On the basis of this ratio, the number of foreign visitors staying in Pattaya is estimated at 210 thousand in 1976, and consequently the number of staying residents, including foreign and domestic residents is deduced to have been 190 thousand.

(Basing on T.O.T. Survey data, Hotel Arrival in Pattaya, 1973-1975)

It is difficult to estimate the percentages of foreign and domestic residents, but the greater part is conjectured to be made up of foreign residents. Thai statistics for 1974-75 show that the number of aliens registered was more than 350,000 in 1972, but in reality there must have been more because there are many relatively short stay aliens who do not register.

The number of domestic visitors who enjoy holidays at Pattaya is apt to increase following an increase in the number of holidays and the per capita income of the Thai people.

On the basis of the above analysis, the number of hotel staying visitors to Pattaya is forecasted to increase to 1,200,000 (of which, foreign tourists number 660,000 and residents 540,000) in 1996 from 400,000 in 1976, implying an average annual increase of 5.6%, as shown in Table 2.3.1.

#### Future tourist pattern

At present, the seasonal fluctuation of visitors to Pattaya is more remarkable than that of visitors to Thailand because of its attraction mainly as a beach resort.

But, in the future, it should be possible to spread the visitors more evenly throughout the year by arranging inland activities in addition to ocean resort facilities. Besides, with the increase of resident visitors, Pattaya will also function as a resort for the domestic population in harmony with the international tourists.

### (b) Summary

The future tourism demand of Thailand is estimated by forecasting the future world volume of international tourists, the future Pacific and Asian region share of the world volume and the share of Thailand in the Pacific and Asian region. The volume of tourists into Pattaya is estimated for both international tourists and resident visitors by analysing the share of international tourism of Thailand into Pattaya and also the future pattern of growth of resident visitors. The results are summarized as follows:

Table 2.3.1 Long-Term Forecast of Hotel Visitors in Pattaya

(in thousands)

	(actual) 1973	(actual) 1974	1975	1976	1981	1986	1991	1996
Foreign tourists (A)	-	-	-	210	352	500	588	660
% Average annual increase	-	-	-	-	1976-81 10.9	1981-86 7.3	1986-91 3.3	1991-96 2.3 1976-96 5.9
Visitors to Thailand (B)	1,038	1,107	1,180 <sup>1/</sup>	1,098	1,600	2,000	2,500	3,000
% ( $\frac{A}{B}$ )	-	-	-	19.1	22.0	25.0	23.5	22.0
% ( $\frac{A}{D}$ )	-	-	-	52.5	58.7	62.5	58.8	55.0
Residents (C)	-	-	-	190	248	300	412	540
% Average annual increase	-	-	-	-	1976-81 5.5	1981-86 3.9	1986-91 6.9	1991-96 5.6 1976-96 5.4
% ( $\frac{C}{D}$ )	-	-	-	47.5	41.3	37.5	41.2	45.0
(A + C) Total (D)	279	364	400 <sup>2/</sup>	400 <sup>3/</sup>	600	800	1,000	1,200
% Average annual increase	-	1973-74 30.5	1974-75 9.9	-	1976-81 8.4	1981-86 5.9	1986-91 4.6	1991-96 3.7 1975-96 5.4 1976-96 5.6

Notes: 1. <sup>1/</sup> Actual  
 2. <sup>2/</sup> Estimated on the basis of 254,066 arrivals at 7 hotels which have 1,643 rooms in all.  
 3. <sup>3/</sup> Assumed remaining on the same level as in 1976.

Year	Future Tourist Volume				
	1976	1981	1986	1991	1996
World (millions)	213.0	268.3	309.3	360.5	417.0
Pacific & Asia (millions)	7.1	9.0	11.1	13.5	16.0
Thailand (thousands)	1,180	1,600	2,000	2,500	3,000
Pattaya (thousands)	400	600	800	1,000	1,200
International ( " )	210	352	500	588	660
Resident ( " )	190	248	300	412	540

(c) Day trip visitors

A rough estimate of day trip visitors is calculated on the following.

- 1) Population of Thailand (1977): about 40 million
- 2) Population of Bangkok (1971): about 4 million (10% concentration rate).
- 3) 2.8% natural population increase.
- 4) Rough estimate of population of Thailand in 1996: 69 million.
- 5) Estimated population of Bangkok in 1996: 6.9 million to 10.4 million (concentration rate: 10% - 15%).
- 6) Using the results of the survey by the Ministry of Transportation of Japan in 1969 as a reference, the participation rate of the population of Bangkok of recreational facilities is as follows:
  - (i) One-day recreational participation rate: about 45%.
  - (ii) Half of them going to the beach.
  - (iii) 5 times/year participation.
  - (iv) 2.5 times/year participation in beach recreation.
  - (v) Number of day trip visitors to beaches: 3.9 million visitors/year to 5.9 million visitors/year.
- 7) Assuming a 6-month beach season and a concentration rate of 75% (peak month rate - about 12%), the number of day trips in a peak month: 470,000 trips - 710,000 trips.
- 8) Concentration rate on Saturday and Sunday: 80%.
- 9) Peak day visitors: 48,000 persons/day - 71,000 persons/day.
- 10) Assuming 20 - 30% of them come to Pattaya Beach.

10,000 persons from Bangkok  
2,000 persons from other areas

12,000 persons/day (Maximum day trip visitors to Pattaya)

The future volume of day trip visitors into Pattaya is estimated as follows:

<u>Volume of Day-Trip Visitors (in thousands)</u>			
<u>Item</u>	<u>1981</u>	<u>1986</u>	<u>1996</u>
For the year	458	625	960
Maximum per day	5.5	7.5	12.0
Average per day	1.3	1.7	2.6