PROJECT SUMMARY (M/P + F/S)

ASE THA 208B /88

Compiled March 1990
Revised March 1991

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY
Potential Tourism Development for the Southern Region

3. SECTOR
Tourism/ General

4. REFERENCE NO.

5. TYPE OF STUDY: (M/P)+F/S

6. COUNTERPART AGENCY
Tourism Authority of Thailand

7. OBJECTIVES OF STUDY
Formulation of a master plan through 2001 and feasibility analysis of priority projects

8. DATE OF S/W: Jul.1987

9. CONSULTANT(S)
JCP Co., Ltd. and Pacific Consultants International

10. STUDY TEAM

No. of Members	16
Period	Nov.1987 - Mar.1989 (12 months)
Total M/M	58.79
Japan	21.04
Field	37.75

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY
Market survey
LANDSAT survey

12. EXPENDITURE

Total	211,779 (¥'000)
Contracted	198,915

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA
Phuket, Phangnga, and Krabi (Greater Phuket)

2. PROJECT COSTS

	Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)		
	2)		
	3)		

3. CONTENTS OF MAJOR PROJECT(S)
1) New resort complex:
- Thai Muang international beach resort base (5,000 hotel rooms)
- Khok Kloi public beach development (1,000 hotel rooms)

2) Phuket marine center (100ha)
- Yacht harbor (200 berths for yachts and a basin for boats)
- Marine hotel (200 rooms)
- Marine center (restaurants, supermarkets)

Implementation Period: 1989 - 2001

4. FEASIBILITY AND ITS ASSUMPTIONS

	EIRR	FIRR
1)	12.9%	
2)	13.4%	

Feasibility: Yes

Conditions and Development Impacts:
See the preceding page.

5. TECHINCAL TRANSFER
OJT on the selection of sites for international tourism development, analysis of tourism development potentials, market development and promotion campaigns and programming through intergration with other organizations

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS

- ☐ Completed or in Progress
  - ○ Completed
  - ○ Implementing
  - ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

1) TAT is making preparations to obtain the Cabinet endorsement on the proposed projects.
2) TAT is coordinating with Royal Forest Dept. and F Art Dept on the implementation of the projects proposed for public sector investment such as Andaman Historical and Cultural Research Center, Tourism Manpower Training School (Phuket) and National Park Training Center (Phuket).
3) TAT has obtained an OECF loan to implement 72 tourism-related projects by the end year (1991) of the 6th national development plan. When those projects are completed as scheduled, TAT intends to apply for another OECF loan on tourism-related projects.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION
(1)

和名　南部地域開発計画

(F/S, (M/P)+F/S, D/D)

PROJECT SUMMARY (F/S)

ASE THA 321/88

Compiled March 1990
Revised March 1991

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY: Project of the Regional Truck Terminals

3. SECTOR: Transportation/ Land Transportation

4. REFERENCE NO.:

5. TYPE OF STUDY: F/S

6. COUNTERPART AGENCY: Dept. of Land Transport (DLT), Ministry of Communications

7. OBJECTIVES OF STUDY: Projection of cargo and determination of the scale of regional terminals

8. DATE OF S/W: Oct.1986

9. CONSULTANT(S): Pacific Consultants International

10. STUDY TEAM

No. of Members	10
Period	Jan.1987 - Jul.1988 (19 months)
Total M/M	48.30
Japan	17.50
Field	30.80

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12. EXPENDITURE

Total	159,475 (¥'000)
Contracted	151,993

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA: Bangkok, Chieng Mai, Khon Kaen, Nakhon Sawan, Nakhon Ratchasima, Hat Yai/Songkhla

2. PROJECT COSTS

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	8,780	4,704	4,076
2)			
3)			

3. CONTENTS OF MAJOR PROJECT(S)

The study proposed the following three terminals.

	Stage 1 (1991-1992)	Stage 2 (1999-2000)
1) Chieng Mai	27 berths	18 berths
2) Khon Kaen	30	20
3) Hat Yai/Songkhla	50	45

Implementation Period: 1989 - 2000

4. FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:	EIRR	FIRR
	1) 40.36%	
	2) 16.89%	
	3) 39.63%	

Conditions and Development Impacts:

Physical distribution was projected for 1987, 1996, and 2006. Cargo traffic projections were based on the O/D survey and interviews of enterprises, and economic growth projections by NESDB. Composition of cargo was determined according to the regular O/D survey conducted by DLT. EIRR was calculated on the assumption that the terminal in Bangkok be constructed and in operation.

Regional truck terminals will contribute to (1) efficient land use in regional cities, (2) smoother road traffic in and around regional cities, (3) efficiency improvement of transport, (4) economy of scale by joint use of facilities and equipment, (5) stimulation of regional economies, and (6) environmental conservation.

5. TECHINCAL TRANSFER

OJT on the traffic survy and the interview survey
Participation of 2 counterparts in the JICA training program

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS

- ☐ Completed or in Progress
  - ○ Completed
  - ○ Implementing
  - ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

A JICA expert has been attached to DLT since Nov. 1988.

Three proposed regional truck terminals presupposes the existence of the terminal proposed for Bangkok. The Government of Thailand is expecting the private investments in the Bangkok terminal, and the implementation of the three terminals are dependent on the progress of this move.

2. MAJOR REASONS FOR PRESENT STATUS

The construction of the Bangkok terminal was delayed because the DLT tried to shortcut from the F/S directly to the construction and plans to rely entirely on private investments.

3. PRINCIPAL SOURCES OF INFORMATION

(1) (2)

和名 地方トラックターミナル整備計画

{F/S, (M/P)+F/S, D/D}

PROJECT SUMMARY (Basic Study)

ASE THA 502/88

Compiled March 1990
Revised March 1991

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY: Topographic Mapping of Bangkok Metropolitan Area

3. SECTOR: Social Infrastructures/ Survey & Mapping

4. REFERENCE NO.:

5. TYPE OF STUDY: Basic Study

6. COUNTERPART AGENCY: Bangkok Metropolitan Administration(BMA)

7. OBJECTIVES OF STUDY

8. DATE OF S/W: Mar.1986

9. CONSULTANT(S): International Engineering Consultants Association and Kokusai Kogyo Co., Ltd.

10. STUDY TEAM

No. of Members	65
Period	Sep.1986 - Mar.1989 (28 months)
Total M/M	213.3
Japan	52.2
Field	161.1

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY

12. EXPENDITURE

Total	1,002,033 (¥'000)
Contracted	983,807

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA: Bangkok Metropolitan Region

2. COSTS OF PROPOSED PLAN OR MAJOR PROJECTS

	Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)		
	2)		

3. MAJOR PROJECT(S) PROPOSED

Aerial photography	Bangkok Metropolitan Region	4,000 sq.km
Topographic mapping (Scale:1/10,000)	Bangkok Metropolitan Area	2,000 sq.km
Topographic mapping (Scale:1/4,000)	Builtup Area of Bangkok	300 sq.km

4. CONDITIONS AND DEVELOPMENT IMPACTS

The maps will provide the base for planning transportation, flood control, housing, sewerage and other aspects of urban planning for the Bangkok Metropolitan Area.

5. TECHINCAL TRANSFER

1) OJT on aerial triangulation, drafting, editing and other mapping processes.
2) OJT on new technologies of digital mapping and computer-aided mapping.

III. PRESENT STATUS OF USE OF STUDY RESULTS

1. PRSENT STATUS

- [■] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)

The start of the topographic survey and aerial photography scheduled for the first year was delayed due to some procedural matters, but the work progressed as planned during the second year. The printing of the maps, the final phase of the work, was done by the Royal Thai Survey Dept. in the third year.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION

(1)

和名 バンコク首都圏地形図作成事業

{M/P, M/P+(F/S), Basic Study, Other}

PROJECT SUMMARY (Other)

ASE THA 604/88

Compiled Maech 1990
Revised Maech 1991

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY: City Planning Manual

3. SECTOR: Social Infrastructures/ Urban Planning & Land Development

4. REFERENCE NO.:

5. TYPE OF STUDY: Other

6. COUNTERPART AGENCY: Dept. of Town and Country Planning(DTCP), Ministry of Interior

7. OBJECTIVES OF STUDY: Technical transfer on urban planning

8. DATE OF S/W: Aug.1987

9. CONSULTANT(S): Yachiyo Engineering Co., Ltd.

10. STUDY TEAM

No. of Members	11
Period	Nov.1987 - Feb.1989 (13 months)
Total M/M	63.37
Japan	4.33
Field	59.04

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY

12. EXPENDITURE

Total	229,891 (¥'000)
Contracted	210,450

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA: Major cities

2. COSTS OF PROPOSED PLAN OR MAJOR PROJECTS

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	8,550		8,550
	2)			

3. MAJOR PROJECT(S) PROPOSED

The study suggested measures to strengthen the organizationof the DTCP (structural reform, technical training, data management system, etc.) and measures to improve the capability of the DTCP in planning, implementing and research, and proposed the establishment of a center for promoting urban planning and improvement.

The proposed center will be attached to the DTCP and work with the NESDB, the Regional Administratation Dept. of the Ministry of Interior, Chulalongkorn Univ., Asian Institute of Technology and others. Major activities of the center are (1) technical training and (2) database management and R&D. Major facilities are seminar houses and dormitories.

4. CONDITIONS AND DEVELOPMENT IMPACTS

- The project will strengthen the functions of the DTCP.
- Improvement of urban planning techniques will contribute to the national socio-economic development.

5. TECHINCAL TRANSFER

OJT and a seminar

III. PRESENT STATUS OF USE OF STUDY RESULTS

1. PRSENT STATUS

- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)

- The planning techniques included in the manual has been utilized by various divisions of the DTCP.
- Preparations are under way to establish the proposed center.
- The Government of Thailand requested JICA for a study on land consolidation and zoning.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION

(1)

和名 都市計画策定指針作成

{M/P, M/P+(F/S), Basic Study, Other}

PROJECT SUMMARY (M/P)

ASE THA 105/89

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY:
Master Plan of Telecommunications Development

3. SECTOR:
Communications & Broadcasting/ Telecommunication

4. REFERENCE NO.:

5. TYPE OF STUDY: M/P

6. COUNTERPART AGENCY:
Telephone Organization of Thailand

7. OBJECTIVES OF STUDY:
To fomulate a long term development plan for the period from FY 1993 to FY 2007 in Thailand

8. DATE OF S/W: Jun.1988

9. CONSULTANT(S):
NTT International Corporation

10. STUDY TEAM

No. of Members	11
Period	Sep.1988 - Dec.1989 (15 months)
Total M/M	75.61
Japan	34.72
Field	40.89

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY

12. EXPENDITURE

Total	220,718 (¥'000)
Contracted	212,870

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA
Whole area of the Kingdom Thailand

2. COSTS OF PROPOSED PLAN OR MAJOR PROJECTS (US$1,000) — US$1=145Yen

	Total Cost	Local Cost	Foreign Cost
1)	6,406,759	3,525,379.3	2,881,379.3
2)			

3. MAJOR PROJECT(S) PROPOSED

1.To install 4,345 thousand new main telephone lines within 15 years from FY 1993,and have total 6,168 thousand lines at the end of FY 2007.
To improve telephone density from 3.2 at the end of FY 1992 to 10.7.
To meet the telephone demand at the end of 1997.
2.To make existing network fully degitized in order to provide enhanced telecommunication services such as ISDN all over the country by the end of FY 2007.

4. CONDITIONS AND DEVELOPMENT IMPACTS

Conditions
1.Fund raising of required investment costs.
2.Improvement of management of TOT such as construction, operation and maintenance, procurement, marketing and customer relations, human resources, organization, budgeting and finance, tariff design, and management information.

Development Impacts
1.Fulfillment of national telephone demand and provision of versatile services.
2.Realization of an informationized society and more dynamic and innovative business operation.

5. TECHINCAL TRANSFER

Technical Transfer in Japan was conducted to TOT counterparts, 2 members JICA sponsored and 4 TOT sponsored, while Study period of Work in Japan-2(July and August of 1989) on 41 days about the process of formulating the long term development plan. Field surveys of NTT facilities were also arranged to them.

III. PRESENT STATUS OF USE OF STUDY RESULTS

1. PRSENT STATUS
- [■] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)

A further study titled "A Study on Regional Development Plan for Telecommunications Network in the Bangkok Metropolitan Area in the Kingdom of Thailand" was requested by the Government of Thailand in February 1990 on the recommendation of this Study report.

2. MAJOR REASONS FOR PRESENT STATUS

While TOT hires a foreign consultant company to implement 5th project, they have an intention to implement 6th and later projects by themselves.
Since TOT does not have concrete future plan at present, they asked the Study team for the future planning.

3. PRINCIPAL SOURCES OF INFORMATION

和名 国内電話網拡充長期計画

{M/P, M/P+(F/S), Basic Study, Other}

PROJECT SUMMARY (M/P + F/S)

ASE THA 211/89

Compiled March 1991
Revised March 1990

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY
Provincial Water Supply Projects

3. SECTOR
Public Utilities/ Water Supply

4. REFERENCE NO.

5. TYPE OF STUDY: M/P+(F/S)

6. COUNTERPART AGENCY
Provincial Waterworks Authority

7. OBJECTIVES OF STUDY

8. DATE OF S/W

9. CONSULTANT(S)
Nippon Jogesuido Sekkei Co.,Ltd.

10. STUDY TEAM

No. of Members	
Period	Jul. 1988 - Mar. 1990 (21 months)
Total M/M	58.23
Japan	26.04
Field	32.17

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey
Soil Investigation

12. EXPENDITURE

Total	355,723 (¥'000)
Contracted	164,359

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA
Patum Thani & Prachatipat, Phuket, Su Ngai Golok Phang Nga, Takua Pa, Thung Song.

2. COSTS OF PROPOSED PLAN OR MAJOR PROJECTS

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	233,228	117,079	116,149
	2)			

3. MAJOR PROJECT(S) PROPOSED
Dam, Intake Facilities, Transmission Facilities. Treatment Facilities and Distribution Facilities.

4. CONDITIONS AND DEVELOPMENT IMPACTS
Major urbanization is observed in Paturn Thani & Prachatipat, and Phuket island is a most famous resort in Thailand. Su Ngai Golok is a trading area along boundary. Phang Nga, Takua Pa and Thung Song are main commercial center in the southern region of Thailand. This development Project has a economic viability with several social economic benefits, such as consumer satisfaction, health benefit, land values increase and increased employment opportunities.
In financial aspect, however, PWA equity shall be infused or water rates increased to cover the financial deficits.

5. TECHINCAL TRANSFER
Through the study, planning, demand forecasting, design of each facilities and 08 M management method has been transfered to counterparts.

III. PRESENT STATUS OF USE OF STUDY RESULTS

1. PRSENT STATUS
- [■] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)

・Patum Thani & Prachatipat, Phuket
PWA intends to propose these package project to Japanese government for OECF yen credit.

・Su Nagi Golok
This project will be carried out by PWA's own equity.

・Other projects
PWA intends to request these projects to Japanese government for grant aid projects.

2. MAJOR REASONS FOR PRESENT STATUS

・There are very higher economic and social efficiancy in investment of these projects.

・As compared to financing capability of governmnent of Thailand, these projects need more capital costs.

3. PRINCIPAL SOURCES OF INFORMATION

和名 地方都市水道整備計画

{M/P, M/P+(F/S), Basic Study, Other}

ASE THA 211/89

PROJECT SUMMARY (M/P + F/S)

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY: Provincial Water Supply Projects

3. SECTOR: Public Utilities/ Water Supply

4. REFERENCE NO.:

5. TYPE OF STUDY: (M/P)+F/S

6. COUNTERPART AGENCY: Provincial Waterworks Authority

7. OBJECTIVES OF STUDY

8. DATE OF S/W

9. CONSULTANT(S): Nippon Jogesuido Sekkei Co.,Ltd.

10. STUDY TEAM

No. of Members	
Period	Jul. 1988 - Mar. 1990 (21 months)
Total M/M	58.23
Japan	26.04
Field	32.17

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY

Topographic Survey
Soil Investigation

12. EXPENDITURE

Total	355,723 (¥'000)
Contracted	164,359

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA: Patum Thani & Prachatipat, Phuket, Su Ngai Golok

2. PROJECT COSTS

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	233,228	117,077	116,149
	2)			
	3)			

3. CONTENTS OF MAJOR PROJECT(S)

Dam, Intake Facilities, Transmission Facilities, Treatment Facilities and Distribution Facilities

Implementation Period: 1990 - 1996

4. FEASIBILITY AND ITS ASSUMPTIONS

	EIRR	FIRR
Feasibility:	9.5	17.0
	7.04	12.6
	11.63	

Conditions and Development Impacts:

Major urbanization is observed in Patum Thani & Prachatipat, and Phuket island is a most famous resort in Thailand. Su Ngai Golok is a trading area along boundary. So, investment of this project bring many social and economic benefits, such as, incremental of served population, land value increase, health benefit and tourism income increase.

5. TECHINCAL TRANSFER

Through the study , planning, demand forecasting, design of each facilities and O & M management method has been transfered to counterpart.

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS

- ☐ Completed or in Progress
  - ○ Completed
  - ○ Implementing
  - ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

・Patum Thani & Prachatipat, Phuket
PWA intends to propose these package projects to Japanese government for OECF yen credit.

・Su Nagi Golok
This project will be carried out by PWA's own equity.

2. MAJOR REASONS FOR PRESENT STATUS

・There are very higher economic and social efficiency in investment of these project.

・As compared to financing capability of goverment of Thailand, these projects need more capital costs.

3. PRINCIPAL SOURCES OF INFORMATION

和名　地方都市水道整備計画

{F/S, (M/P)+F/S, D/D}

PROJECT SUMMARY (M/P + F/S)

ASE THA 210/89

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY Thailand

2. NAME OF STUDY

Medium to Long Term Improvement/Management Plan of Road and Road Transport in Bangkok

3. SECTOR

Transportation/ Urban Transportation

4. REFERENCE NO.

5. TYPE OF STUDY M/P+(F/S)

6. COUNTERPART AGENCY

Bangkok Metropolitan Administration (BMA)

7. OBJECTIVES OF STUDY

Medium an Long-term road plan.(M/P)
Area traffic control (ATC) system (F/S)
Common utility duct (CUD) system

8. DATE OF S/W Apr. 1988

9. CONSULTANT(S)

Yachiyo Engineering Co.,Ltd.
AIMEC Corporation
International Engineering Consultants Associaton

10. STUDY TEAM

No. of Members	18
Period	NOv. 1988 - Mar. 1990 (17 months)
Total M/M	127.24
Japan	55.37
Field	71.87

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY

Common utility duct data collection survey
Traffic survey

12. EXPENDITURE

Total	448,794 (¥'000)
Contracted	424,258

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA

Medium and long - term road plan
Area within the, Outer Ring Road

2. COSTS OF PROPOSED PLAN OR MAJOR PROJECTS

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	5,007,320	2,164,880	2,842,440
	2)			

3. MAJOR PROJECT(S) PROPOSED

1) Main Roads
(1) Expressways (12 projects including following 3 projects)
Expressway linking Thonburi-Bang Su-Ramkhamhdeng
Expressway linking Phet Kasem and SSE
Expressway linking Nonchaburi and Bang Kapi

(2) At-grade Main Roads (44 projects)

2) Bus-ways (13 projects)

4. CONDITIONS AND DEVELOPMENT IMPACTS

In order to meet the future transportation demand of both private and public modes at certain service levels, the study revealed that a package of road projects, comprising expressways (a total of 184km), segregated bus-ways (121km), at-grade main roads (599km) and distributors (56km specifically identified only in and around the city centre) has to be implemented by year 2006, in addition to the development of the extended LRT system (91km) and elevated Northern Line of SRT (45km). All these projects are economically viable.

5. TECHINCAL TRANSFER

Accepted of trainees : 3 persons
Seminar was held in Bangkok with the attendance of about 300 people.

III. PRESENT STATUS OF USE OF STUDY RESULTS

1. PRSENT STATUS

- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)

Concerning the expressway, arterial roads and bus way projects proposal in the M/P and in accordance with the request of BMA issued in May 1990, IECA dispatched a preliminary study team to undertake the necessary studies in order to formulate the bus way project. Based on the report of the IECA Study BMA intends to prepare an official request to have this project implemented under JICA aid.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION

和名 バンコク首都圏中・長期道路交通計画

{M/P, M/P+(F/S), Basic Study, Other}

PROJECT SUMMARY (M/P + F/S)

ASE THA 210/89

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY:
Medium to Long Term Improvement/Management Plan of Road and Road Transport in Bangkok

3. SECTOR:
Transportation/ Urban Transportation

4. REFERENCE NO.:

5. TYPE OF STUDY: (M/P)+F/S

6. COUNTERPART AGENCY:
Bangkok Metropolitan Administration (BMA)

7. OBJECTIVES OF STUDY:
Medium an Long-term road plan.(M/P)
Area traffic control (ATC) system (F/S)
Common utility duct (CUD) system

8. DATE OF S/W: Apr. 1988

9. CONSULTANT(S):
Yachiyo Engineering Co.,Ltd.
AIMEC Corporation
International Engineering Consultants Associaton

10. STUDY TEAM

No. of Members	18
Period	Nov. 1988 - Mar. 1990 (17 months)
Total M/M	127.24
Japan	55.37
Field	71.87

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Common utility duct data collection survey
Traffic survey

12. EXPENDITURE

Total	448,794 (¥'000)
Contracted	424,258

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA:
ATC Project: Area within the Middle Ring Road and adjacent areas (235 intersections)
CUD Project: Area within the Middle Ring Road.

2. PROJECT COSTS

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	43,840	15,767	28,073
	2)			
	3)			

3. CONTENTS OF MAJOR PROJECT(S)
(ATC)..... Improvement and expansion of the area traffic control system.
1. Stage I 143 intersections
2. State II 92 intersections

(CUD).....Case Study
1. Trunk line CUD.....1,200m
2. Supply line CUD.....700m

Implementation Period: (ATC) 1990

4. FEASIBILITY AND ITS ASSUMPTIONS — EIRR — FIRR

Feasibility:

Conditions and Development Impacts:
(ATC)
Making observations on current conditions and analyzing traffic survey results, the problems related to the ATC system in particular were evaluated and organized in a relevant manner.

In order to evaluate the effectiveness of the ATC system in controlling traffic the total vehicle operating cost (VOC) and travel time cost (TTC) were estimated.
In addition, an implementation program for the recommended plan was evaluated on the basis of the economic analysis.

5. TECHINCAL TRANSFER
Accepted of trainees: 3 persons
Seminar was held in Bangkok with the attendance of about 300 people.

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS
- ☐ Completed or in Progress
  - ○ Completed
  - ○ Implementing
  - ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

1) Based on the ATC F/S study, the detailed design and tender documents were prepared from March to November of 1990 for the project under the JICA study titled " The Detailed Design Study on Area Traffic Control Project in Bangkok".

2) The Government of Thailand has decided to construct the exclusive road for automobiles utilizing San Saep Canal by BOT, and is now negotiating with interested private investors.

3) The Government is requesting a JICA feasibility study on the exclusive bus road proposed by the study.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION

和名 バンコク首都圏中・長期道路交通計画

{F/S, (M/P)+F/S, D/D}

PROJECT SUMMARY (F/S)

ASE THA 322/89

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY:
Purification of Klong Water in Bangkok

3. SECTOR:
Public Utilities/ Sewerage

4. REFERENCE NO.:

5. TYPE OF STUDY: F/S

6. COUNTERPART AGENCY:
Department Drainage and Sewerage, Bangkok Metropolintan Administration

7. OBJECTIVES OF STUDY:
Urgent Klong Water Purification in Bangkok

8. DATE OF S/W: Sep.1987

9. CONSULTANT(S):
Pacific Consultants International,Tokyo
Engineering Consultants Co., Ltd.

10. STUDY TEAM

No. of Members	10
Period	Dec.1987 - Feb.1990 (27 months)
Total M/M	56.47
Japan	20.01
Field	34.46

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey
Construction of Areated Lagoon Treatment System

12. EXPENDITURE

Total	236,285 (¥'000)
Contracted	206,294

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA
Bangkok City
Study Area 380 sq.km Population 3.7 milion

2. PROJECT COSTS (US$1=145Yen)

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	8,920	6,120	2,800
2)			
3)			

3. CONTENTS OF MAJOR PROJECT(S)
An urgent water quality improvement for the Klong with the introduction of dilution water from the Chao Phraya River by remodeling the existing gates and pumps that are utilized for drainage only at present.
Aerated lagoon treatment of Klong water in two ponds to realize a net pollution load reduction and to abate water quality deterioration of the Chao Phraya River by the dilution water introduction.

Implementation Period: 1990 - 2000

4. FEASIBILITY AND ITS ASSUMPTIONS — EIRR — FIRR

Feasibility:

Conditions and Development Impacts:
The project component of dilution water introduction and aerated lagoon treatment are only urgent water pollution control measures.
As such, large scale structural measures are not proposed.
The dilution water introduction will improve the Klong water quality resulting in a very significant improvement of color and order. The aerated lagoons will contribute to a net pollution load reduction which will more than offset the anticipated increase in pollution load discharge to the Chao Phraya River due to the introduction of dilution water to the klongs.
Five to six years after the completion of the project, the klong water quality will be deteriorated due to the increased pollution load generation.
To cope with this future pollution problem, sewerage

5. TECHINCAL TRANSFER
Consecutive observation of klong water quality and water flow.
Simulation analysis of klong water quality by computer.

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS
- ☐ Completed or in Progress
  - ○ Completed
  - ○ Implementing
  - ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

Two JICA experts are dispatched to the Department of Drainage and Sewerage of Bangkok Metropolitan Administration, the executive agency of the Project. And one expert is also engaged in promoting the implementation of the project.

2. MAJOR REASONS FOR PRESENT STATUS

3. PRINCIPAL SOURCES OF INFORMATION

和名 バンコク市クローン水質改善計画

{F/S, (M/P)+F/S, D/D}

PROJECT SUMMARY (F/S)

ASE THA 323/89

Compiled March 1991
Revised

I. OUTLINE OF STUDY

1. COUNTRY: Thailand

2. NAME OF STUDY: Measure to Promote the Container Handling System through Leam Chabang Port

3. SECTOR: Transportation/ port

4. REFERENCE NO.:

5. TYPE OF STUDY: F/S

6. COUNTERPART AGENCY: OESB, NESDB, NOTC, PAT, SRT, BSAA

7. OBJECTIVES OF STUDY:

8. DATE OF S/W:

9. CONSULTANT(S): Pacific Consultants International, Overseas Coastal Area Development Institute of Japan

10. STUDY TEAM

No. of Members	12
Period	Mar.1988 - Jul.1989 (16 months)
Total M/M	71.80
Japan	31.90
Field	39.90

11. ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12. EXPENDITURE

Total	190,597 (¥'000)
Contracted	188,539

II. SUMMARY OF STUDY RESULTS

1. SITE OR AREA: Bangkok and Laem Chabang

2. PROJECT COSTS

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	32,440	21,420	11,020
	2)	47,461		
	3)			

3. CONTENTS OF MAJOR PROJECT(S)

Construction of an inland container depot (ICD)
(MP) a 48ha ICD including 6 CFSs for handling 2.1 million tons of container cargo in 2001.
(SP) a 32ha ICD including 4 CFSs for handling 1.3 million tons of container cargo in 1996.

Cost 1) is for the short-term development (SP) and Cost 2) for the master plan (M/P).

Implementation Period: 1989 - Aug.1991
1994 - 1996

4. FEASIBILITY AND ITS ASSUMPTIONS

EIRR	FIRR
17.6%	6.5%

Feasibility: Yes

Conditions and Development Impacts:

a) Economic Growth Rate: 6.5%(-1990), 5%(1991-)
b) Container Cargo Volume in Thailand:
   1996 15,560,000tons (1,487,000TEUS)
   2001 19,832,000tons (1,818,000TEUS)
c) Laem Chabang Port Development:
   container cargo 1996: 6.8 million tons (638,000TEUS)
   2001: 10.6 million tons (953,000TEUS)
   container berth 1996: 4, 2001:6
d) Reduction of freight costs by effectuating container transport system and promotion of economic growth.

5. TECHINCAL TRANSFER

1. Promotion of technical transfer by joint study
2. Promotion of technical transfer by employing a local consultant for O/D survey
3. Counterpart training

III. PRESENT STATUS OF STUDIED PROJECT

1. PRSENT STATUS

- ☐ Completed or in Progress
- ○ Completed
- ○ Implementing
- ○ Processing
- ■ Promoting
- ☐ Delayed or Suspended
- ☐ Discontinued or Cancelled

(Description)

a) Laem Chabang Port Development is being implemented introducing Yen credit, and four container berths are planned to be commissioned in August 1990.
Moreover, the deadline of international competitive bid which decides users of the container berths was October 20th 1989, and the bid will be conducted.
b) ICD is being prepared for Yen credit

2. MAJOR REASONS FOR PRESENT STATUS

This project is a main part of the Development Project of Laem Chabang Coastal Area which is planned as a national project.

3. PRINCIPAL SOURCES OF INFORMATION

和名　ラムチャバン港輸送施設計画

{F/S, (M/P)+F/S, D/D}