PROJECT SUMMARY (F/S)

ASE IDN/S 341/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY: Surabaya - Mojokerto Toll Road Project

3.SECTOR: Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY:
Bina Marga
Jasa Marga

7.OBJECTIVES OF STUDY:
To examine feasibility of constructing/operating toll raod

8.DATE OF S/W: Nov.1989

9.CONSULTANT(S):
Nihon Koei Co., Ltd.
Pasco International Inc.

10.STUDY TEAM

No.of Members 14

Period Aug.1990-Oct.1991 (15 months)

Total M/M	Japan	Field
45.96	12.40	33.56

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Topographic Mapping Work, Traffic Survey, and Geologic Surve

12.EXPENDITURE

Total	271,228 (¥'000)
Contracted	262,807

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Area between Surabay-Mojokerto coridor and surrounding area

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	199,370		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Construction of toll road between Surabaya-Mojokerto

(Initial 4 lanes)	199,370
(Additional 2 lanes)	13,950
(Overlay)	18,170
(Additional I.C.)	13,590

(Rp.1,965/US$)

Imp. Period: .1991-.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	28.00	FIRR1)	22.00
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The quatified economic banefits which would be realized from implementation of project are defined as the saving in travel costs when comparing "with" and "without" cases.

Travel costs comprise operating cost and time cost.

The incentive development impacts for the area near interchangers.

5.TECHNICAL TRANSFER
- The engineering site survey was made together with counterparts.
- A staff of Bina Marga visited Japan for participation of training program during Aug.-Oct.1990.
- One-day-seminar was executed in Jakarta (Aug.28,1991)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

Bina Marga intends to implement the project by the BOT (Build, Operate and Transfer) method. Negotiations with private investers are in progress.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 スラバヤ～モジョクルト有料道路建設計画

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

PROJECT SUMMARY (F/S)

ASE IDN/A 313/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY Indonesia

2.NAME OF STUDY
Nias Island Irrigation and Agricutural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Public Works, Directorate General of Water Resources Development

7.OBJECTIVES OF STUDY
To evaluate the feasibility of the irrigated agricultural development project in the Nias island, in the framework of the Nias island integrated development program.

8.DATE OF S/W Nov.1989

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Pacific Consultants International

10.STUDY TEAM

No.of Members 11
Period Aug.1990-Aug.1991 (13 months)

Total M/M	Japan	Field
52.37	19.50	32.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
1. qeological survey
2. topographic survey
3. environ mental assessment survey

12.EXPENDITURE

Total	250,058 (¥'000)
Contracted	184,658

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kabupaten Nias, North Sumatra province, 4,000 km2, 560,000 persons in 1989

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	36,015	21,086	14,928
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Feasibility study on Mezawa/How irriqation project has been executed.
(1) Diversion Weirs: 4nos.
(2) Primary irriqation canal and secondary canals: 101km
(3) Drainage canals: 62km
(4) Road Net Work: 131km
(5) On-farm development: 5,100ha
(6) Land reclamation: 2,640ha
(7) Irriqation Agricultural Coodination Center

Implemention period is 5 years.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	10.20	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Assumption (1) project life = 50 year
(2) all prices are expressed in constant prices in late 1990
(3) exchanqe rate: US$1 = Rpl,850
(4) transfer payment are exchanded from the project cost
(5) economic price of traded qoods is estimated based on IBRD projections of world market prices for 1995

Effects (1) incremental paddy production is estimated at 47,000 tons

5.TECHNICAL TRANSFER
OJT for Indonesian counterpart personnal has been carried out throuqh the field survey.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
After the completion of the F/S, no decision has been taken toward the project implementation.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

和名 ニアス島灌漑農業開発計画

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

PROJECT SUMMARY (F/S)

ASO KOR/S 301/77

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Korea

2.NAME OF STUDY
Rapid Transit Line No.2,Construction Project in Seoul

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Agency Seoul Subway Authority

7.OBJECTIVES OF STUDY
Technical and economic evaluation of constructing a new 24-km line of the Subway No.2 and related facilities

8.DATE OF S/W Oct.1976

9.CONSULTANT(S)
Japan Transportaion Consultants, Inc.
Pacific Consultants International
The Japan Electrical Consulting Co., Ltd.
Japan Transportation Machinery Consultants Co.

10.STUDY TEAM

	Total M/M	Japan	Field
No.of Members 21			
Period Apr.1977-Dec.1977 (8 months)			

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 103,375 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Seoul

2.PROJECT COST

(US$1,000) (US$1=Won480)		Total Cost	Local Cost	Foreign Cost
	1)	385,000	269,000	116,000
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
- New subway line (double track, 1,435 mm gauge, 24 km, 20 stops)
- Marshalling yard (capacity of 410 cars)
- Operation (fleet of 240 cars), daily service frequency of 430 cars)
- Electric equipment (direct current 1,500V, transformers at 6 locations, overhead transmission)
- Signals and tele-communication (automatic signals, telephones, wireless)

Imp. Period: Dec.1978-Dec.1983

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	17.60	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
- Demand projections are based on those done by KIST
- The transit line will start partial operation before the completion of the entire line
- Fares will be increased from the present level

Development impacts:
- The new line will stimulate the growth of the southern area of Seoul
- Alleviation of traffic congestion in the central and southern areas of Seoul
- Saving of travel time and reduction of transport costs

5.TECHNICAL TRANSFER
Participation of counterparts in JICA training program

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)

(FY1991 Overseas Survey)
After the completion of the JICA study, the Korean authorities decided to reroute the proposed Subway No.2 in accordance with the urban development plan for Seoul. Specifically, the subway was to be constructed in line with the policy objective of alleviating the population concentration in the Gangpae Area by encouraging the population growth of the Gangnam Area. Accordingly, the subway No.2 was divided into four sections, and the construction was completed in four stages, as shown below.

1) New Station-Sport Stadium (14.3km)
   Opened in Oct. 1980
2) Sp. Stadium-Univ. of Education (5.5km)
   Opened in Dec. 1982
3) Univ. of Ed.-Seoul Univ.(6.7km)
   Opened in Dec. 1983
4) Seoul Univ.-New Station (22.3km)
   Opened in May 1984

Total cost of contruction : W887.1 billion
Local currency component : W805.7 billion
Foreign currency component: W 71.4 billion
of which, Yen Loan W 15.8 billion
Others W 55.6 billion
The route proposed by the JICA study was different from the one

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 地下鉄２号線建設計画

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

PROJECT SUMMARY (F/S)

ASO KOR/A 301/78

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Korea

2.NAME OF STUDY
Southwest Coast Agricultural Land Reclamation Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
ADC

7.OBJECTIVES OF STUDY

8.DATE OF S/W Mar.1976

9.CONSULTANT(S)

10.STUDY TEAM

No.of Members 6
Period Mar.1978-

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 11,556 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kimpo, Sihwa, Hongbo, Puchang, Haenam

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	898,347		
	2)	720,661		
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Kimpo	SihwaA	SihwaB	Puchang	Hongbo	Haenam
1. Reclamation(ha)	4,910	21,100	-	7,910	1,907	5,935
2. Tide Crest	8 places 12km	7 places 21.3km	4 places 2.6km	4 places 9.8km	4 places 2.6km	7 places 12.4km
3. Pumping Stations	1	10	10	9	9	12
4. Drainage	-	4	3	-	-	-
5. Irriq.	9 canals	15 canals	15 canals		62 canals	
6. Cost (billion wons)	23.4	217.1	131.7	94.3	35	64.4
7. Implementation	3 yrs	5 yrs	5 yrs	4 yrs	4 yrs	4 yrs
8. IRR(%)	12.75	8.75	9.26	12.1	12.0	11.2

Note: the cost 1) includes the alternative A of Sihwa, and cost 2) the alternative B of Sihwa.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
This study is to investigate the results of related main projects(by Korean agency) among reclamation development projects in southwest seashore which are to be implemented, to conduct field investigation, and to exchange the view with the persons in charge in related agencies. As a result of the study, those projects in the specific five districts are effective and appropriate as a means to facilitate the gigantic master plan in southwest seashore belt.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

(FY1991 Overseas Survey)
The present statuses of the five reclamation sites examined by the JICA study are as follows.
1. Kimpo : Completed in June 1989 by private investment
2. Sihwa : To be completed in Dec. 1994 mostly by public investment
3. Haenam : To be completed in Dec. 1994 mostly by public investment
4. Hongbo : To be completed in Dec. 2001 mostly by public investment
5. Puchang: Compared with the other sites, the urgency is low. The project is temporarity on hold, but if it should be implemented, funding would come mainly from the public sector.

At the time of the JICA study, the primary objective of the proposed reclamation schemes was in the increased produciton of paddy. Due to the subsequent socio-economic changes, the objective was diversified to include animal husbandry, cash crops, and industrial development.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 西南海岸干拓農地開発計画

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

PROJECT SUMMARY (M/P)

ASO KOR/S 101/79

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Korea

2.NAME OF STUDY
Long-Term Multipurpose Dam Schemes

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Water Resources Bureau, Ministry of Construction

7.OBJECTIVES OF STUDY
Water resource development

8.DATE OF S/W Jun.1977

9.CONSULTANT(S)
Nihon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 25

Period Oct.1977-Sep.1979(23 months)

Total M/M	Japan	Field
80.20	59.30	20.90

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	227,221 (¥'000)
Contracted	451,087

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
10 damsites: Bamseonggol, Inje, Hongcheon, Ganhyeon, Gujeol, Dalucheon, Bonghwa, Imha, Hamyang, Juam

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
In the 1st staqe study, 24 damsites were investiqated, out of which 10 sites were selected as high in priority.
In the 2nd staqe study, 6 dam schemes (Bamseonggol, Mongcheon, Dalucheon, Ganhyeon, Imha and Juam) were concluded as feasible.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The dam schemes have positive impacts on water supply, irriqation, flood control and power generation.

5.TECHNICAL TRANSFER
Transfer of knowledge to Korean engineers.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)
(FY1991 Overseas Survey)
The current statuses of the ten dam sites examined in the 2nd stage of the JICA study are as follows.

1) Six sites considered feasible
a) Bamseonggol: Implementation is difficult because of possible flooding and other negative conseqences in North Korea.
b) Dalucheon: Time of implementation is not specified.
c) Hongcheon: A construction plan with expected completion in the year 2000 was prepared.
d) Ganhyeon: Time of implementation is not specified.
e) Juam: Completed in Dec.1991 with OECF funding of 11,100 million yen (L/A in Aug. 1984).
f) Imha: Completed in Dec.1991 with OECF funding of 6,975 million yen (L/A in Aug. 1987).

2) Four sites which were considered not feasible at the time of the study, but mihgt be justified at some future date.
a) Gujeol: Completed in 1991 by the Korean Electric Power Corporation (the power plant located in Kanrin)
b) Inje: Time of implementation is not specified.
c) Bonghwa: Time of implementation is not specified.
d) Hamyang: F/S and D/D were completed, but the construction schedule is yet undecided.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 長期多目的ダム開発計画

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

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1988
Revised Mar.1992

ASO KOR/S 201A/85

I. OUTLINE OF STUDY

1.COUNTRY: Korea

2.NAME OF STUDY: Seoul Municipal Solid Waste Management System

3.SECTOR: Public Utilities/Urban Sanitation

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY: Ministry of Science and Technology(MOST)

7.OBJECTIVES OF STUDY: Solid Waste Managemant Plan

8.DATE OF S/W: Nov.1983

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

10.STUDY TEAM

No.of Members 16

Period Jun.1984-Sep.1985(13 months)

Total M/M	Japan	Field
109.00	45.50	63.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	254,159 (¥'000)
Contracted	309,821

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
(Main Olympic Games site)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	13,258	13,258	
(US$1=890 won)	2)			

3.CONTENTS OF MAJOR PROJECT(S)
See next page.

4.CONDITIONS AND DEVELOPMENT IMPACTS
This project is expected to improve living conditions and to establish an effective municipal solid waste management system suitable to a modern city.

5.TECHNICAL TRANSFER
Use of local consultants for solid waste composition analysis.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- [x] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)
Followed by F/S.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 ソウル特別市都市固形廃棄物整備計画

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

PROJECT SUMMARY (M/P+F/S)

ASO KOR/S 201B/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Korea

2.NAME OF STUDY
Seoul Municipal Solid Waste Management System

3.SECTOR
Public Utilities/Urban Sanitation

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Ministry of Science and Technology (MOST)

7.OBJECTIVES OF STUDY
Solid Waste Management Plan

8.DATE OF S/W Nov.1983

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

10.STUDY TEAM

No.of Members 13
Period Jun.1984-Sep.1985(16 months)

Total M/M	Japan	Field
109.00	45.50	63.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	254,159 (¥'000)
Contracted	309,821

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA

2.PROJECT COST

(US$1,000)
(US$1=890 won)

	Total Cost	Local Cost	Foreign Cost
1)	13,258	13,258	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Incinerator	3t/day
Transfer station	1,150t/day
Final disposal site	
Transportation system	

Imp. Period: May.1987-Aug.1988

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

An efficient solid waste management system is indispensable for the rapidly growing City of Seoul.

The existing disposal site at nanjido is open dumping and unhygienic and the capacity has already been exhausted. A new, sanitary landfill disposal site need be located in Jinsen.

5.TECHNICAL TRANSFER

OJT: Seminar by specialized field

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

After the completion of the study, subsequent steps were suspended because of the budgetary reallocation necessitated by the Olympic Games.

(FY1991 Overseas Survey)

In October 1991, the municipal government of Seoul announced its long-term development plan of solid waste management, which envisages to establish 11 incinerators with a total capacity of 16,500 tons/day by the end of 1999. The total cost was estimated to amount to 2 trillion won. One incinerator (150 ton/day)was already constructed in Mokudon, and the construction of tow others is expected to start during 1992. The finding of the JICA study would be partly consulted for the implementation.

The JICA study proposed the land reclamation in Jinsen to establish a final disposal site. The current policy is to utilize the existing disposal site in Nanjido until Nov.1992, and then to transfer to the Jinsen site (Jinsen City is already using about 4 million square meters out of the total available area of 20 million).

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①③

和名 ソウル特別市都市固形廃棄物整備計画

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

PROJECT SUMMARY (M/P)

Compiled Mar.1993
Revised

ASO KOR/S 102/91

I. OUTLINE OF STUDY

1.COUNTRY Korea

2.NAME OF STUDY
Environmental Management Project on Small-and-midium-sized Rivers of the Han River System

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
River Maintenance Division,
Seoul Metropolitan Government

7.OBJECTIVES OF STUDY
To formulate basic ideas and project plans for river environment improvement on the four small-to-medium-sized rivers, consisting of water purification plans realizable as river projects, flow improvement plans for recovery and

8.DATE OF S/W Oct.1989

9.CONSULTANT(S)
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period Oct.1989-Jan.1992(39 months)

Total M/M	Japan	Field
80.50	43.20	37.30

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	399,015 (¥'000)
Contracted	220,009

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Seoul Metropolitan Area of four rivers (the Anyang Chong, the Yangjae Chong, the Ui Chong and the Chungroung Chong Rivers)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	10,800,000	10,800,000	
2)	40,760,000	40,760,000	

3.CONTENTS OF MAJOR PROJECT(S)

1. Water Quality Improvement Facilities
   The Anyang Chong River: four facilities
   dredging piled mud on lower streams
   The Yangjae Chong River:one facility
   The Ui Chong River: arrangement of lower streams
   The Chongroung Chong River:one facility
2. Flow Regime Improvement Facilities
   The Ui Chong River: one movable barrage
   three environmental streams
3. River Space Improvement Facility
   The Anyang Chong River: three points 28.2km
   The Yangjae Chong River:two points 13.2km
   The Ui Chong River: one point 14.0km
   The Chongroung Chong River: one point 7.8km

4.CONDITIONS AND DEVELOPMENT IMPACTS

Target Year: 2010(The First Phase Target Year: 2002)
Water Quality Improvement (Biochemical Oxygen Demand(BOD) in mg/l)
The Anyang Chong River: Station (St.)2 44.7-->10.0
St.4 39.8-->10.0 St.5 41.2-->10.0
St.6 23.7-->10.0
The Yangjae Chong River: St.2 13.4-->10.0 15.3-->6.0
The Chongroung Chong River:St.3 34.0-->6.0 44.5-->6.0
[Other general benefits]
1.Subsistence aspect(disaster and pollution reduction)
2.Life aspect (spectacle improvement, air purification, amenity improvement and recreation opportunity increase)
3.Social and cultural aspect(community activation and preservation of historic relics and cultural properties)
4.Natural preservation aspect(protection of animals and plants and flow preservation)
5.Educational aspect(opportunity increase of environment and nature education)
6.Economic aspect (cost reduction of park maintenance, land pricerise, medical cost reduction, production and employment increase in related industries)

5.TECHNICAL TRANSFER
Planning and designing method on direct purification facility of river water and water-contact facilities.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)

(FY1992 Overseas Survey)
Waiting for the answer.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

和名 漢江水系中小河川環境整備計画

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

PROJECT SUMMARY (M/P+F/S)

ASO LAO/S 201A/89

Compiled Mar.1991
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Laos

2.NAME OF STUDY
Improvement of Drainage System in Vientiane

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Municipality of Vientiane

7.OBJECTIVES OF STUDY
To prepare a Master Plan of storm water drainage

8.DATE OF S/W Dec.1988

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Mitsui Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 11
Period Mar.1989-Mar.1990(13 months)

Total M/M	Japan	Field
57.40	33.70	23.70

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Water quality analysis; Soil and geotechnical analysis

12.EXPENDITURE

Total	173,375 (¥'000)
Contracted	159,196

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
City of Vientiane(52 sq.km)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	75,452		
2)			

3.CONTENTS OF MAJOR PROJECT(S)
- A Master Plan of storm water drainage for the entire study area
- Selection of Priority Project

4.CONDITIONS AND DEVELOPMENT IMPACTS
The storm water drainage willbe improved and inundation damage in the Study area will be relieved.

5.TECHNICAL TRANSFER
Counterpart officers participated in the Study.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)
A feasibility study was conducted for the priority project. The priority project covers the central part of the city which suffers from frequent flooding.

(FY1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ヴィエンチャン排水網整備計画

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

PROJECT SUMMARY (M/P+F/S)

ASO LAO/S 201B/89

Compiled Mar.1991
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY: Laos

2.NAME OF STUDY: Improvement of Drainage System in Vientiane

3.SECTOR: Social Infrastructures/River & Erosion Control

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY: Municipality of Vientiane

7.OBJECTIVES OF STUDY: To prepare F/S on Priority project

8.DATE OF S/W: Dec.1988

9.CONSULTANT(S):
Nihon Koei Co., Ltd.
Mitsui Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 11
Period Mar.1989-Mar.1990 (13 months)

Total M/M	Japan	Field
57.40	33.70	23.70

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	173,375 (¥'000)
Contracted	159,196

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Hong Ke System, Nam Pasak System etc

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	13,237	5,268	7,969
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

(1) Hong Ke System
a. Hong Chanh retarding basin: storage volume 120,000 cu.m.
b. Hong Thong storage canal: storage volume 16,000 cu.m.
c. Khoa Khao storage canal: storage volume 32,000 cu.m.
d. Hong Ke Canal: maximum design discharge 58.1 cu.m/sec.
(2) Ham Pasak System
Improvement of Ham Pasak canal and construction of short-cut canal (1,140m)
(3) Hong Kai Keo System
a. Hong Kai Keo canal: maximum design discharge (downstream) 23.5 cu.m/sec.
b. Nong Bon retarding basin: storage volume 50,000 cu.m.
In addition to the above, the construction of canal (total length 1,800m) is recommended.

Imp. Period: .1992-.1994

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	7.30	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The design storm for the main canals was 1/10 and 1/2 for leteral canals
Improvement for the main canals and a part of leteral canals in the inudation area inside the city, and construction of a retarding basin

5.TECHNICAL TRANSFER
Counterpart officers participated in the Study for technical transfer.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The Government of Lao PDR applied for Japanese grant aid in Feb. 1991, but did not get the approval.

Municipality of Vientiane places high priority on this project among the on-going projects.

(FY1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ヴィエンチャン排水網整備計画

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

PROJECT SUMMARY (F/S)

ASO LAO/A 301/89

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY: Laos

2.NAME OF STUDY: Agricultural and Rural Development Project in the Surburbs of Vientiane

3.SECTOR: Agriculture/General

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Ministry of Agriculture and Forestry

7.OBJECTIVES OF STUDY: Formation of a plan for the irrigationand drainage and infrastructure development project

8.DATE OF S/W: Mar.1988

9.CONSULTANT(S): Nihon Koei Co., Ltd.
Construction Project Consultants

10.STUDY TEAM

No.of Members

Period Aug.1988-Jun.1989(11 months)

Total M/M	Japan	Field
33.41	9.37	24.04

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	101,591 (¥'000)
Contracted	96,727

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Saythany and Saysetha Districts of Vientiane Municipality

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	29,077	2,998	26,529
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Irrigation and drainage
   a. Main pump station: Discharge 4.86 cu.m./sec.
   b. Requlation pond: Storage capacity 110,000 cu.m.
   c. Handreach: 11.4km
   d. Main irrigation canal: 19.3km
   e. Secondary irrigation canals: 20.8km
   f. Drinage canals: 39.4km
   g. On-farm works: 880ha
2. Rural infrastructures
   a. Road: 6.7km
   b. Deep well and water supply facilities

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	11.06	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

(i) To increase rice production to ease the chronic shortage of rice in Vientiane Municipality and its neighbouring area,

(ii) To produce upland crops to meet the increasing demand resulting from promotion of agro-industrial development and export-crop cultivation,

(iii) To provide rural infrastructures for betterment of social and agricultural activites of villagers,

(iv) To improve living standards of farmers through increase in their farm production and incomes, and provision of rural infrastructures, and

(v) To earn or save foreign currency for the Government of Lao PDR by reduction of rice imports and production of export crops.

water; stimulate the rural economy.

5.TECHNICAL TRANSFER: Technology transfer of the methodology of F/S to the counterpart personnel

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

-Aug. 2, 1990 E/N for Phase I (1,074 million yen) signed
-Jul. 3, 1991 E/N for Phase II (688 million yen) signed
-Jul. 1, 1992 E/N for Phase III (450 million yen) signed

(FY1992 Overseas Survey)
Waiting for the answer.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 首都郊外農村開発計画調査

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

PROJECT SUMMARY (F/S)

ASO LAO/S 301/90

Compiled Mar.1992
Revised

I. OUTLINE OF STUDY

1.COUNTRY: Laos

2.NAME OF STUDY: Tha Ngon Bridge Construction Project

3.SECTOR: Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Department of Communication, Transport, and Construction

7.OBJECTIVES OF STUDY: Feasibility Study of Tha Ngon Bridge

8.DATE OF S/W: .1989

9.CONSULTANT(S): Construction Project Consultants

10.STUDY TEAM

No.of Members 7

Period .1990-Jan.1991 (13 months)

Total M/M	Japan	Field
34.00	19.00	15.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	116,958 (¥'000)
Contracted	103,935

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Vientiane Municipality, Xaythani destrict (1200 sq.km, habitant 79000)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	15,353	4,943	10,410
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Bridge
Foundation: Multi-column foundation by reverse circulation drill method concrete pile
Bridge Type: 5 span post-tensioned conrete T-girder
Dimension: Bridge length 230m, span 45,060m, total width 11m, carriage width 7.5m, sidewalk 2.5m (upper stream side only)
2. Approach Road
Total Length: 3,350m
Dimension: Total width 9.0m, carriage width 6.0m, shoulder width 1.5m x 2 (sealed by SBST)
Pavement: Subbase course 20cm, base course 15cm, surface DBST, subgrade 30cm (if required)

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

Conditions:
Traffic growth rate: 1990-2000 11.1%, 2001-2010 3.4%, after 2010 6.4%
Capacity of Existing Ferry Boat: 600/ADT (exclude motorcycle)
Estiamted ADT: M. cycle 224, P. car 60, L. truck 66, H. bus 18, Total 479 units
VOC and Time Cost (time saving cost) with and without project is compared as economic benefit.

Development Impacts:
-Save vehicle operation cost
-Increase agricultural production and decrease its transportation cost and time -Improve tourism and its route
-Accelerate implementation of planned regional development project on left side bank of Nam Ngum River

5.TECHNICAL TRANSFER

-On the job training
-Technical presentation
-Distribution of Bridge Design Manual

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

Since the study was completed, Lao PDR submitted the request of Japanese Grant Aid for the Project in February 1991, but did not get the approval.

The ferry operation has been experiencing difficulties because of the breakdown of the boats. The operating rate of the ferry is 50% or even less, and the Government of Lao PDR and Vientiane Municipality are hoping the early implementation of this project.

(FY1991 Overseas Survey)

At the site suggested for the bridge construction, a pump station is now under construction by Japanese grant (Agricultural and Rural Development Project in the Suburbs of Vientiane). The alternative location of the bridge must be identified before its implementation.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①②

和名 タゴン架橋計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 301/77

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Kuantan-Kuching Submarine Cable Project

3.SECTOR
Communications & Broadcasting/Telecommunication

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Jabatam Telekom Malaysia

7.OBJECTIVES OF STUDY
Increase of telecommunication channels between the Malaysian Peninsula and Saba/Sarawak States

8.DATE OF S/W Jul.1977

9.CONSULTANT(S)
Kokusai Denshin Denwa Co, Ltd.
Sanyo Hydrographic Survey Co., Ltd.

10.STUDY TEAM

	Total M/M	Japan	Field
No.of Members 7			
Period Aug.1977-Mar.1978 (7 months)			

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	107,229 (¥'000)
Contracted	50,666

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Ocean Area Between Kuantan, Pahan in Peninsula Malaysia & Kuching, Sarawak

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
US$1=2.36M$	1)	33,301		
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Construction of Submarine Cable System between the Peninsula Malaysia and Kuching, Sarawak in East Malaysia.

Contents: Construction of Submarine Cable System between Cherating, Kuantan and Sematan, Kuching

Distance: 855.3km

No. of Capacity: 1.000 voice grade circuits

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	13.80	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions: (1) Construction work should be completed by 1979.
(2) Exemption of import Tax of Malaysia
(3) Calculated at the exchange rate of 1M$=120Yen
(4) Evaluated over a period of 20 years after construction

Development Impacts: It is fully expected to have effects on economic growth of Malaysia and regional development in Sabah, Sarawak states.

5.TECHNICAL TRANSFER
OJT: 3 trainner on how to carry out the submarine survey

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The project was completed by the OECF finance.

Jun.1979 OECF Loan Agreement signed (5,558 million yen)
For the submarine cables (855.3km and 1,200 voice grade circuits)

The east-west Malaysia submarine cable system was constructed by Japanese companies by using Japanese coaxial submarine cable system in 1980.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①④

和名 東西マレイシア海底ケーブル敷設計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 201A/78

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Sewerage and Drainage System Project:Butterworth/Bukit Mertajam Metropolitan Area

3.SECTOR
Public Utilities/Sewerage

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Ministry of Health
Engineering Dept., Seberang Perai Municipal Council

7.OBJECTIVES OF STUDY
To establish environmental protection plans (sewerage and drainage control) in consideration with industrial development

8.DATE OF S/W Jun.1976

9.CONSULTANT(S)
Nihon Suido Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 16
Period Oct.1976-Feb.1979(28 months)

Total M/M	Japan	Field
111.00	56.90	54.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	334,901 (¥'000)
Contracted	315,997

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Northwest shore area of Malay Peninsula and Province Wellesley including industrial area facing to Penang island

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	495,012	404,784	
(US$1=2.5M$)	2)			

3.CONTENTS OF MAJOR PROJECT(S)
To improve sewerage and drainage control facilities in the area facing Penang island

-Sewerage facilities:
Separate type (including industrial wastewater), main sewers, branch sewers, pumping stations, treatment plans (laqoon)

-Drainage facilities:
for storm water control by open channels and control pond, design channels with the 2- or 5-year storm return period in Butterworth and Bukit Mertajam urban area, 2 control ponds in Butterworth area, and design control ponds in undeveloped area with the 10-year storm return period.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Although it is difficult to scale the economic merits of the project, decrease in epidemic diseases of digestive organs will result in the increase in workload, and decrease in medical expenses. Also water pollution control and flood control are expected. Combined systems is adopted in some areas using existing drains while most of areas are by separate system. The most simplified system, minimum number of pumping station and laqoon system as a treatment plant, is considered for economical and simple operation/maintenance. For drainage system, existing drains are used, and storage/control ponds and reclamations are recommended for flood control.

5.TECHNICAL TRANSFER
1) The training program for 3 people for 3 months was effectively carried out including site visit/inspection and lectures. 2) Training through preparation of reports: parts of reports are prepared in cooperation with trainees during training

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)
1. A feasibility study was subseuently undertaken on the priority area (Butterworth and bukit Mertajam) by the JICA team.
2. The Federal Government has launched a national study on sewerage system. Other less costly alternatives may be proposed by the on-going study.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ペナン州下水道・排水計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 201B/78

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Sewerage and Drainage System Project:Butterworth/Bukit Mertajam Metropolitan Area

3.SECTOR
Public Utilities/Sewerage

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Ministry of Health
Engineering Dept., Seberang Perai Munipal Council

7.OBJECTIVES OF STUDY
F/S on sewerage and drainage system for proposed area to prepare preliminary engineering design

8.DATE OF S/W Jun.1976

9.CONSULTANT(S)
Nihon Suido Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 19
Period Oct.1976-Feb.1979(28 months)

Total M/M	Japan	Field
111.00	56.90	54.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	334,901 (¥'000)
Contracted	315,997

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Butterworth & Bukit Mertajam Metropolitan Area

2.PROJECT COST (US$1,000) (US$1=2.5M$)

	Total Cost	Local Cost	Foreign Cost
1)	14,200	11,800	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Contents	Size
-Study Area	1,100ha (sewerage) 3,500ha (drainage)
-Sewer pipes	d225mm-d900mm, L=55,100m
-Pumping station	8 stations (q=1~23cu.m/min)
-Treatment plant (stabilization pond)	3 plants (Q=10,000~14,000cu.m/d)
-Drainage facilities	

Imp. Period: .1980-.1985

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

Establishments of sewerage system plan and drainage control plan are based on the M/P.

Sewerage and drainage plans established for the target year of 2000.

Although the economical merit by the development of plans can not be scaled, the reductions of flood damages during the storm season and control of water pollution by wastewaters from the proposed area, especially from industial district, can be expected. Decrease of expenses for present night soil treatment systems will also be the one of the essential merits.

5.TECHNICAL TRANSFER

1)Carried out a training program in Japan for 3 enginnering staffs for 3 months, preparing project reports in cooperation with our engineers. (Including site inspections)
2)Project reports preparation: part of F/S reports and other technical reports

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

1. Detailed design of the priority areas of Phase 1 (i.e., builtup areas of 3,480 ha in Butterworth and Bukit Mertajam) was completed in May 1981 by Nihon Suido Consultants Co. Ltd. and a local engineering firm (Ooi Jeik Boon).

2. Phase 1 construction works were implemented by the local governmnt (Seberang Perai Municipal Council) during the 3rd and 4th Malaysia Plan periods (1976 - 1985) with the fund of the Federal government. The Council now has a good sewerage system consisting of 50 km of sewers, 3 treatment plants and 8 pumping stations, which were completed in 1985.

3. The local government had to suspend the remaining Phases 2 through 5 because of the huge financial costs involved. The remaining phases are set aside under "keep in view" status.

4. The local government is unable to repay the Federal government loans for the completed Phase 1, because its operation runs into deficit every year. The Seberang Perai Municaipal Council has asked the Federal Governmnt for conversion of the loans to grants.

2.MAJOR REASONS FOR PRESENT STATUS

(FY1992 Overseas Survey)

Part of the reason for the rise in cost was the increase of land prices especially during the late 1970s and the early 1980s. From the demand side,local people are not prepared to pay for the cost of sewer connection (20% of annual cost to connect, or RM 1200 on average, which is lower than the actual cost of connection).

The proposed centralized sewerage system was too expensive and too advanced for the local government to implement and operate.

3.PRINCIPAL SOURCE OF INFORMATION

①②

和名 ペナン州下水道・排水計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/A 201A/79

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Trengganu Swamp Area Integrated Agricultural Development

3.SECTOR
Agriculture/General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Land Development Authority, Central Trengganu Development Authority (KETENGAH)

7.OBJECTIVES OF STUDY

8.DATE OF S/W Feb.1978

9.CONSULTANT(S)
Taiyo Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 26

Period Aug.1978-Mar.1979(8 months)

Total M/M	Japan	Field
100.30	45.30	55.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Soil Analysis

12.EXPENDITURE

Total	226,358 (¥'000)
Contracted	209,427

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Trengganu swamp Area on the eastern part of Peninsula Malaysia (about 600sq.km)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	219,500	87,800	131,700
US$1=2.2M$ in 1980	2)			

3.CONTENTS OF MAJOR PROJECT(S)
Twenty-four district, which are expected to be highly efficient for the proposed integrated agricultural development, were selected out of 47 swampy districts in the area.
The proposed development area: 32,210 ha (the total of 24 districts).
The development includes irrigation, fisheries, sericulture, livestock industry and reclamation/immigration.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The Trenggganu state has a population of 500 thousand, a half of which is engaged in agriculture. Most of those agricultural population manage their small farms and 80 percent of them are poor.
Reclamation of the swamp area is expected to expand agricultural lands and develop livestock industry, sericulture and fisheries, as well as to create employment opportunities.

5.TECHNICAL TRANSFER
(1) Admittance of two trainees for in-service training in Japan. (2) Transfer of the techniques on soil surveys and chemical/physical analysis of the soil samples through the joint surveys with counterpart agencies of Malaysia.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)
A feasibility study was conducted on a selected district following the master plan phase of the JICA study.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 トレンガヌ沼沢地農業総合開発計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/A 201B/79

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Trengganu Swamp Area Integrated Agricultural Development

3.SECTOR
Agriculture/General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Land Development Authority Central Trengganu Development Authority (KETENGAH)

7.OBJECTIVES OF STUDY

8.DATE OF S/W Feb.1978

9.CONSULTANT(S)
Taiyo Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 26
Period Jun.1979-Feb.1980(9 months)

Total M/M	Japan	Field
100.30	45.30	55.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	226,358 (¥'000)
Contracted	209,427

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
A part of the Trengganu swamp area (about 3,000ha)on the eastern Peninsula Malaysia

2.PROJECT COST
(US$1,000)
US$1=2M$ as of 1979

	Total Cost	Local Cost	Foreign Cost
1)	20,200	7,900	12,300
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Land recalmation	2,100 ha
Irrigation canal	16.48 km
Drainage canal	29.14 km
Road	31.6 km
Facilities for settlement	705 houses

Imp. Period: .1980-Dec.1984

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	13.80	FIRR1)	
EIRR2)	17.10	FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Benefits from development:
Raising income of small-scale farmers.
Creation of employment opportunities.
Alleviation of damages by flooding.

5.TECHNICAL TRANSFER
(1) Admittance of two trainees for in-service training in Japan
(2) OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. In the current State Development Plan, the development of swamp areas is considered low priority. Because KETENGAH swamps are largely swamp forests, they would be more costly to develop than the plain swamps. There are many other areas which are not developed and can be developed at lower costs.
2. Owing to the change in policy under the 6th Malaysia Plan, the development options have been increasingly left to the private sector. At present, both the State Government and private investors are more interested in oil palm plantations, for which some 400,000 acres have been developed.
3. A few studies were conducted by the KETENGAH, but they were not implemented because of the shortage of funds from the government.
4. Of the districts covered by the JICA master plan, individual farmers have been undertaking small-scale developments with their own fund in more easily accessible districts. Most of the projects implemeted were related to the plantation of fruit trees such as saluk, rambutan, durian, etc., because KETENGAH now placed priority on diversification. A major problem for the farmers in the KETENGAH area (the average landholding rangig from 0.25 to 0.5 acres) is the marketing of fruits they produce.

2.MAJOR REASONS FOR PRESENT STATUS
1. Changes in priority in the State Development Plan
2. Changes in development policy under the 6th Malaysia Plan

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 トレンガヌ沼沢地農業総合開発計画

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

PROJECT SUMMARY (Other)

ASE MYS/S 601/79

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY: Malaysia

2.NAME OF STUDY: Bintulu Deepwater Port Project

3.SECTOR: Transportation/Port

4.REFERENCE NO.:

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY: Bintulu Port Management Body, Ministry of Transport

7.OBJECTIVES OF STUDY:

8.DATE OF S/W: .0

9.CONSULTANT(S): Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 4

Period Jan.1980-Feb.1980(2 months)

Total M/M	Japan	Field
5.60	2.00	3.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	14,481 (¥'000)
Contracted	10,389

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Bintulu/Sarawak

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)			
2)			

3.CONTENTS OF MAJOR PROJECT(S)

The port of Bintulu in Sarawak was planned to become a loading port which handle LNG exported to Japan (total of 600 thousand tons since 1983) and fertilizer produced by the ASEAN-project.

Because LNG is an important source of foreign exchange, the Malaysian government has completed D/D and invited tenders in order to complete the development of the port by the end of 1982. Because of the pressing schedule and technical difficulty of construction, the Malaysian government requested the assistance from Japan to expedite the project implementation.

This study advised on site construction and engineering, and supervision and evaluation of tender documents.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Implementation of this project is expected to accelerate the development of related industries of LNG, promote regional economic development, and to improve the standard of living in the region.

5.TECHNICAL TRANSFER:

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

Based upon the recommendation of this report, the project was implemented and completed in 1985 with the OECF financing.

May 1980 OECF loan agreement signed (7,800 million yen)
For dredging and construction of breakwaters
(including LNG. Pier)
Dec. 1982 Construction completed

The Deepwater Port of Bintulu was developed at the total cost of 34.5 billion yen and opened in 1985. Three Japanese experts cooperated on the port development during 1982-1985.

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION

①②④

和名 ビンツル港建設計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 202A/80

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Kelantan Port Development Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Economic Planning Unit, Prime minister's Department (EPU)

7.OBJECTIVES OF STUDY
Master plan, covering the period up to the year 2000, the First Phase Development Plan up to the year 1987, and the feasibility of the plan

8.DATE OF S/W May.1975

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period Sep.1979-Feb.1981(0 months)

Total M/M	Japan	Field
85.63	57.17	28.46

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Boring Survey

12.EXPENDITURE

Total	190,122 (¥'000)
Contracted	180,720

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kelantan, east coast of Peninsular Malaysia

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

East coast area of Kelantan is economically the least developed and the only port is useless because of the deposition of silt and sand discharge. The basic objective of the project is the construction of a commercial and fishery port in the area.
Recommended new facilities are;
Commercial port area:
Breakwater(970m,840m), Breakwater(570m),
Channel(-7.5m,-5.0m), Quay 2 Berths(-7.5m, 260m),
Dolphin 1 Berth, Palm Oil Storage Tanks 4,
Petroleum Product Storage Tanks 15.

Fishery port area:
Mooring facility(-3.0m, 290m, -2.0m, 175m),
Wholesale facility 1, Cold Storage Freezing.
Ice factry facility each 1 unit.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Target years of future cargo handling volume were the years 1987, 2000. The estimation of cargo volume by commodity is based on GDP of the Kelantan including other development plans.

This project is expected to promote industrialization in Kelantan, and to improve the standard of living of local population, especially fishermen.

5.TECHNICAL TRANSFER
Deputy derector and 3 persons accepted for training

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)
A feasibility study was undertaken following the master plan phase of the study.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ケランタン州港湾建設計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 202B/80

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Kelantan Port Development Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Economic Planning Unit, Prime Minister's Department (EPU)

7.OBJECTIVES OF STUDY
Master plan, covering the period up to the year 2000, the First Phase Development Plan up to the year 1987, and the feasibility of the plan

8.DATE OF S/W May.1979

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period Sep.1979-Feb.1981(17 months)

Total M/M	Japan	Field
85.63	57.17	28.46

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	190,122 (¥'000)
Contracted	180,720

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kelantan, east coast of Peninsular Malaysia

2.PROJECT COST

(US$1,000) (US$1=M$2.2)		Total Cost	Local Cost	Foreign Cost
	1)	40,113	20,254	19,859
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
The project develops the port as a distribution center and a base for coastal and offshore fishing boats.

-Breakwater, channel and basin: depth -5.0~-7.5m
-Quay: depth -7.5m x 260m
-Berths for fishing boats: depth -2.0m~-3.0m
-Fishing facilities (Open storage, cold storage)
-Access road

Imp. Period: Mar.1983-Dec.1987

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	9.40	FIRR1)	4.60
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
This project is expected to promote industrialization in Kelantan, and to improve the standard of living of Kelantan's people, especially fishermen by constructing a port as a physical distribution center for fishery and forestry products, and a coastal and pelagic fishery base.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The project was suspended after the completion of F/S due to the changes in port operation in Malaysia.
Cargo was increasingly handled in Singapore, and the capacity expansion of Kelantan Port on the east coast became unnecessary for the time being. Although the provincial government hopes its early implementation, the Federal Government postponed the project indefinitely.

2.MAJOR REASONS FOR PRESENT STATUS
Changes in cargo flows.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ケランタン州港湾建設計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 302/80

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Beluru/Long Lama/Limbank Trunk Road Construction Project in Sarawak

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Sarawak Economic Planning Unit
Sarawak Public Works Dept.

7.OBJECTIVES OF STUDY
Road Plan

8.DATE OF S/W Feb.1978

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members 13
Period Mar.1978-Mar.1980(24 months)

Total M/M	Japan	Field
61.13	42.90	19.23

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geology

12.EXPENDITURE

Total	186,171 (¥'000)
Contracted	141,135

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Northern Sarawak
Miri/Bintulu-Limbang segment

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	84,383	84,383	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Route improvement	69.5km
New route construction	141.1km
Feeder roads	49.8km(5 routes)

Imp. Period: .1980-.1985

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	10.10	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
(1) Project life : 20 years
(2) Construction in 3 staqes
(3) At first, roads will remain unpaved. As the traffic volume increases, they will be paved.

Benefits include :
(1) Agricultural development along both sides of roads
(2) Promotion of forestry and manufacturing
(3) Tourism development at and around G.Mulu National Park.

5.TECHNICAL TRANSFER
Transportation economics (mass transit).

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The Federal Government allocated RM 50 million under the 6th Malaysia Plan for the project, but the State Government readjusted its priority and allocated only RM 12 million. Detailed designs have been undertaken in stages by the State Public Works Dept. since 1980. The project design was changed regarding the trunk road from Beluru to Limbang. The development will be primarily focused on the stretch from Batang Tinjar to Long Lama. A pilot track is being designed in-house by the Dept. and is expected to be completed by the end of the 6th Malaysia Plan (1991-1995).
2. The present status of the road sections are as follows.
Main road Beluru 19km (Status: sealed road)
Beluru - Batang Tinjar 36.5 km (Status: gravel road)
Batang Tinjar - Long Lama 25 km (Status: 5 km surveyed)
Long Lama - Nganga Medamit (Status: sealed road, upgrading)
Nganga Medamit - Limbang (Status: to be connected)
3. A new study on the development of a first class trunk road linking Sarawak and Sabah is being considered. The draft final report of another JICA study (Highway Network Development Plan) has been recently submitted, and its finalized version will be shortly considered by the Sarawak State Government for adoption. The report's new network development proposals may replace the earlier studies on road development in the State.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
The State Government lowered the priority of the project. The newly completed JICA study may form the basis for a new policy for road network development in Sarawak.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 サラワク幹線道路建設計画

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

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1992

ASE MYS/S 303/80

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Flood Forecasting and Warning System in Sabah and Sarawak

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department of Irrigation and Drainage (DID)

7.OBJECTIVES OF STUDY
Establishment of flood forecasting and warning systems over the basins of Kinabatangan and Sadong river basins of Sabah and Sarawak Provinces

8.DATE OF S/W Nov.1978

9.CONSULTANT(S)
CTI Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 9
Period Oct.1979-Jul.1980(9 months)

Total M/M	Japan	Field
19.16	10.56	8.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Radio Wave Propagation Test

12.EXPENDITURE

Total	57,134 (¥'000)
Contracted	42,009

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kinabatangan River in Sabah State and Sadong River in Sarawak State

2.PROJECT COST (US$1,000) (US$1=220Yen)

	Total Cost	Local Cost	Foreign Cost
1)	2,516	611	1,905
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	K River	S River	Total
Flood Forecasting Center	1	1	2
Relay Station	2	1	3
Monitor Station	1	1	2
Telemeter Station	7	7	14
Transmission & Receiving Station	1	1	2

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
The purpose of the project is to establish systems and organizations to give flood forecasting and warning by analizing hydrologic data obtained at the basins of Kinabatangan and Sadong Rivers.

Desired results of the development are to foster harmonious growth of social and economic environment by mitigating direct and indirect flood damage and by resulting stability of livelihood of the people.

5.TECHNICAL TRANSFER
1. OJT: Out of the survey items, both counterparts and Japanese engineers were worked together in radio wave propagation test, etc.
2. Transfer of Equipment and Instruction: After through OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
1980~81 D/D undertaken by DID.
1985 Construction work completed by local fund (M$700,000)

2.MAJOR REASONS FOR PRESENT STATUS
Drive forward setup of the other party country:
The project cost is comparatively higher than the budget worked out by the department in charge, so that drive forward setup were slackened off.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 サバ・サラワク洪水予警報計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 203A/81

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Sewerage and Drainage System Project in Alor Setar and its Urban Environs

3.SECTOR
Public Utilities/Sewerage

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Alor Setar Municipal Council
Drainage and Irrigation Dept. (DID)

7.OBJECTIVES OF STUDY
Planning of sewerage and drainage system for improvement of life and sanitation conditions

8.DATE OF S/W Oct.1978

9.CONSULTANT(S)
Nihon Suido Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 10

Period Feb.1979-Mar.1981(13 months)

Total M/M	Japan	Field
105.32	66.31	39.01

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	236,999 (¥'000)
Contracted	232,245

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Alor Setar and Kuala Kedah areas of State, bounded on Thailand in Northwest coast of the Malaysia Peninsula

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	47,673	38,421	
(US$1=2.5M$) 2)			

3.CONTENTS OF MAJOR PROJECT(S)

There is no sewerage facilities in the project areas(Project area ; 3,300ha , Population: 140,000).
Main problem in this area is the treatment of night soil. There are some drainage facilities, but flow capability is low, and thus inundation disaster frequently occurs. Contents of the projects are as follows:

Sewerage system:

Sewers	:	d225-1,050mm for 21,970m length
Pumping Station	:	2 stations
Plant	:	11,850cu.m/day (5trains, 88ha site)
Others	:	Trucks, cleaning machines, experiment equipment
Drainage system	:	main drainage channel, embankment, gate

4.CONDITIONS AND DEVELOPMENT IMPACTS
Economic impacts of the project are prevention of inundation damages and water pollution control, decrease in infectious diseases, and increase in productivity, which, however, are difficult to be quantitatively scaled. The project, target year of 2000, is divided into 4 phases. Separate sewerage system with 5 sewage treatment plants (oxidation pond system) is selected. The inundation counter-plan, consisting of improvement of existing channels and reclamation, covered Kuala Kedah area(125ha).

5.TECHNICAL TRANSFER
1) Short term training program.
2) Employment of Local consultants for topographic survey.
3) Equipment granted and instructed for water quality test.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)
F/S has been prepared based on this study.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 アロースター下水道及び排水計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 203B/81

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Sewerage and Drainage System Project in Alor Setar and its Urban Environs

3.SECTOR
Public Utilities/Sewerage

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Alor Setar Municipal Council
Drainage and Irrigation Dept. (DID)

7.OBJECTIVES OF STUDY
F/S of the sewerage and drainage system in the priority area

8.DATE OF S/W Oct.1978

9.CONSULTANT(S)
Nihon Suido Consultants Co., Ltd.

10.STUDY TEAM

No.of Members	10	
Period	Feb.1979-Mar.1981(13 months)	
Total M/M	Japan	Field
105.32	66.31	39.01

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	236,999 (¥'000)
Contracted	232,245

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Priority area of Alor Setar (187 ha)

2.PROJECT COST
(US$1,000)
(US$1=205M$)

	Total Cost	Local Cost	Foreign Cost
1)	8,700	7,100	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Project area	:	187ha
Sewers	:	d225-1,050mm for Length= 22,000m
P/S	:	2 stations(Q = 13-17cu.m/min)
Plant	:	1 Stabilization pond
Drainage facilities	:	construction and improvement of existing main channels

Imp. Period: .1981-.1985

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
This study is to plan the wastewater treatment system and drainage system at the target year of 2000, based on the M/P together with the comments of Malaysian Government. As development impacts, especially economic impacts, water contamination control (agricultural water and seaside water) and decrease of inundation damages in rainy season are expected, although those are not quantitatively scaled. Management cost of planned facilities is lower than that of existing system of night soil treatment and community septic tanks, thus economical merit can be expected.

5.TECHNICAL TRANSFER
1) Short term training program (including site inspections) for two techinical counterparts are under taken.
2) Reporting with counterparts (part of reports have been prepared during the training.)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. Drainage Component (Drainage and Irrigation Dept.)
Detailed design study was conducted with Feberal Government fund for the priority areas (357 ha) of Phase 1 proposd by the JICA Study. RM 30.2 million was allocated in 1989 for the drainage component covering 187 ha (the Sungai Raja catchment area). The construction fell behind the schedule, and the Government cancelled the contract. The constractor was reported to be appealing against the cancellation (New Straits Times, March 12,1993).
2 Sewerage Component (Municipal Council of Kota Setar; MPKS)
A detailed design study was funded (RM 1 million) by the Federal government and carried out by a local engineering firm (SMHB) during Sept.1990 and Feb.1993. The JICA recommendations were modified. The study area was enlarged to include new growth areas (e.g. the Jalan Syed Putra area). Owing to the increased land aquisition costs in the past few years, the stabilization pond method proposed by the JICA Study was judged not cost-effective, and the aerated lagoon system was proposed for adoption.
The Federal Government is now keen to attract private investments in infrastructural development. Although RM 40 million was allocated for the Alor Setar sewerage project under the 6th Malaysia Plan, the allocation was subsequently frozen pending the government's final decision on the proposals submitted by a private investor.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
There have been significant changes in the development of Alor Setar and the Federal Government policy on infrastructual development (i.e., privatization). Considering the considerable time lapse after the completion of the JICA Study, much of the study area and the proposale have to be redefined and restudied.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 アロースター下水道及び排水計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 304/81

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
VHF/FM Broadcast Coverage for Peninsular Malaysia

3.SECTOR
Communications & Broadcasting/Broadcasting

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit, Prime Minister's Dept. and Jabatan Telekom Malaysia

7.OBJECTIVES OF STUDY
Examination of the possibility of establishing VHF broadcasting for the poor reception areas

8.DATE OF S/W Jun.1980

9.CONSULTANT(S)
Integrated Technology Inc.
Japan Broadcasting Corporation

10.STUDY TEAM

	Total M/M	Japan	Field
No.of Members 12			
Period Jun.1980-Feb.1981(8 months)			

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 54,324 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Peninsular Malaysia

2.PROJECT COST
(US$1,000)
US$1=M$2.2

	Total Cost	Local Cost	Foreign Cost
1)	39,265		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The proposed project will introduce the VHF FM broadcasting system for poor reception areas in Peninsular Malaysia, making maximum use of the existing TV facilities.Major contents of the project are as follows.
- Transmission:
  15 sites (13 existing TV sites, 1 existing microwave site and 1 new site)
- Station buildings:
  11 new sites and 4 joint-use sites
- Towers:
  11 new sites and 4 joint-use sites

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	27.00	FIRR1)	8.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions:
1) The charges for TV commercial messages will be raised by 20% every 10 years.
2) The part of the costs will be financed by the government fund (annual growth rate of 8.14%).
3) The annual user charge will be raised from M$24 to M$40.
4) Project life of 10 years
Development impacts:
1) Improvement of reception in the formerly poor-reception areas
2) Community development through improved access to TV broadcasting
3) Cultural contribution

5.TECHNICAL TRANSFER
1) On-the-job training
2) Participation of 2 counterparts in the JICA training program

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The implementation of the project was divided into three phases, and Phases 1 and 2 were completed with the Federal Government funds. The last phase consists of 5 stations in Peninsular Malaysia, 8 stations in Sabah and 11 stations in Sarawak and is being implemented with the Federal Government funds under the 6th Malaysia Plan.
  Phase 1: Jul.1983 - Dec.1985 (4 stations at RM 3 million)
  Phase 2: Dec.1987 - Dec.1990 (8 stations at RM 10 million)
  Phase 3: Construction expected to commence in 1993/94 pending the awarding of tenders (24 stations at RM 35 million)

2. The recommendations of the JICA study have been closely adhered to where feasible. But the project design or components proposed by the JICA study were changed in certain cases. For example, the transmitter power for Ulu Kali Station in Selangor (Phase 1) was increased from 500 watts to 1 kilowat to ensure better reception over a wider area. The transmitter power was also increased to 5 kilowatts from 500 watts for Gunung Pulai, Johor and Gunung Jerai, and Kedah Stations (Phase 2).

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
1. A major reason is the Government's social obligation to ensure the radio coverage as wide as possible for dissemination of information.
2. The increased revenue from radio advertising encouraged the Government to fully implement the recommendations.
3. The demand for higher quality radio broadcast increased (especially after Phase 2) owing to the improved standard of living.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ＦＭ放送網整備計画

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

PROJECT SUMMARY (M/P)

ASE MYS/S 101/82

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
National Water Resources Study

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Economic Planning Unit, Drainage and Irrigation Dept., Public Works Dept., Division of Environment, etc.

7.OBJECTIVES OF STUDY
Formulation of a long-term water resource development plan through 2000

8.DATE OF S/W Feb.1979

9.CONSULTANT(S)
International Engineering Consultants Association
Nihon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 29
Period Oct.1979-Oct.1982(0 months)

Total M/M	Japan	Field
402.97	151.83	251.14

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	863,961 (¥'000)
Contracted	750,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The entire country

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	16,500,000	7,500,000	9,000,000
(US$1=2.5M$)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

The study determined the goals for water resource development through the year 2000, and proposed projects/programs to realize the goals. Major proposals are as follows.
- Construction of multi-purpose dams
- Inter-basin and inter-province water training
- Hydro-power generation
- Improvement of emission treatment at rubber factories and palm oil mills
- Sewerage development in 31 cities
- Flood control (river channel improvement, embankment, control dams, etc.)

4.CONDITIONS AND DEVELOPMENT IMPACTS

The study proposed a nationally consistent strategy for water resource development and management up to the year 2000.
1) To increase potable and industrial water supply by upgrading water supply facilities
2) To raise the level of rice self-sufficiency by irrigation development
3) To increase power supply by hydro-power generation
4) To conserve water quality by the development of public sewerage
5) To reduce flood damages by improved flood control

In order to facilitate the implementation, the study proposed institutional and legislative measures.
1) Legislation of the integrated national water resource development law by incorporating the existing laws and acts.
2) Establishment of water resource committees and water resource bureaus on the national and provincial government levels and a water resource public corporation which will implement the water resource development.

5.TECHNICAL TRANSFER

1) Participation of counterparts in the JICA training program, 2) OJT, and 3) In addition to the study team, two Colombo-Plan experts and one short-term expert were sent to Malaysia.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

Based on the recommendations of the study, a number of basin-wise master plan studies and feasibility studies have been undertaken, such as (1) Perlis-Kedah-Pulau Pinang Regional Water Resources, (2) Regional Water Resources of South Johor, (3) Beris Dam Development, (4) Kelang River Flood Control, (5) Pinang Island Flood Control, and (6) Kelantang Flood Control. Parts of (1), (2) and (3) above are going into implementation stages.

This National Water Resources Study produced a significant achievement in terms of having formulated a framework of the nation's water resource development plan. Since then, almost 10 years have passed. The country has attained a remarkable economic development , and accordingly, the conditions/needs of water development and the use have much changed in these years.

This suggests that there is a need of updating study for renewal of the country's water development/use plans.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 全国水資源開発計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 205A/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY: Malaysia

2.NAME OF STUDY:
Sewerage and Drainage System Project in Kelang,Port Kelang and its Environs

3.SECTOR:
Public Utilities/Sewerage

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY:
Kelang Town Council
Drainage and Irrigation Department

7.OBJECTIVES OF STUDY:
Preaparation of a master plan for Sewerage and drainage systems in urban areas.

8.DATE OF S/W: Dec.1980

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

10.STUDY TEAM

No.of Members 10
Period Mar.1981-Dec.1982(21 months)

Total M/M	Japan	Field
103.85	50.69	53.16

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	240,305 (¥'000)
Contracted	231,199

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Kerang North, kelang South, Port kerang, North port, Kapar and Meru

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	116,800		
(US$1=M$2.5)	2)	204,400		

3.CONTENTS OF MAJOR PROJECT(S)
Three-staqe implementation proqrams up to 2,000 for drainaqe and sewerage systems construction.

1)Drainaqe facilities proposed include improvement of a total of 107km trunk drains, five retention ponds, a total of 11.5km bund, replacement of 26 tidal qates and installation of telemeter system.
2)Sewerage facilities to be constructed include 10 wastewater treatment plants, 12 pumpinq stations and a total of 113km trunk sewers.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Mitiqation of damaqes caused by floods, improvement of public health condition and increase in property value will be anticipated through the implementation of the project.
Intangible benefits, such as environmental improvement, are also expected.

5.TECHNICAL TRANSFER
Traininq was provided for two local counterpart enqineers, one from Mini. of Housinq and Local Government and another from Kelanq Municipality, in Japan durinq the course of the study.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)
A feasibility study followed the master plan study.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 クラン地域下水道・排水計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 205B/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Sewerage and Drainage System Project in Kelang, Port Kelang and its Environs

3.SECTOR
Public Utilities/Sewerage

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Kelang Town Council
Drainage and Irrigation Department

7.OBJECTIVES OF STUDY
Preparation of a feasibility study for sewerage and drainage system in urban areas.

8.DATE OF S/W Dec.1980

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

10.STUDY TEAM

No.of Members 10
Period Mar.1981-Dec.1982(21 months)

Total M/M	Japan	Field
103.85	50.69	53.16

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topografic and leveling survey.

12.EXPENDITURE

Total	240,305 (¥'000)
Contracted	231,199

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Sewerage : Kelang North
Drainage : Kelang North and Port Kelang

2.PROJECT COST

(US$1,000) (US$1=M$2.5)		Total Cost	Local Cost	Foreign Cost
	1)	7,200		
	2)	22,400	15,600	6,800
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

1) Drainage : Trunk drains, 7,460m
Tidal gate, 4
Bunds, 1,980m
Telemeter system

2) Sewerage :
Trunk sewers, dia. 375 ~ 1,200mm, 6,660m
Branch and lateral sewers, 56,985m
Kg. Kuantan pumping station, peak flow 23.7cu.m/min.
Connaught wastewater treatment plant,
oxidation pond 11,592cu.m/d

Imp. Period: .1983-.1990

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
Improvement of public health condition and flood mitigation in the project area.
The project contributes to the environmental improvement in and around the project area.

5.TECHNICAL TRANSFER
Training was provided for two local counterpart engineers, one from Mini. of Housing and Local Government and another from Keland Municipality, in Japan during the course of the study.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. Drainage Component (Drainage and Irrigation Dept.)
The proposals in the JICA Study were accepted by DID. The Federal Government has approved some funding as shown below, but the amount has been insufficient to implement all of the JICA recommendations.
- A tidal gate is being constructed at Jalan Kem in Port Kelang
- A new trunk drain was constructed (part of the 107 km of trunk drains proposed by the JICA Study)

2. Sewerage Component (Kelang Town Council)
The data and maps, design calculations for the recommended projects and the type of materials proposed in the JICA report were used as quides by the Town Council. The Council is currently in the process of acquiring the land required to implement some of the JICA recommendations. Because of the lack of funds, many of these projects are under "keep in view" status.
The Ministry of Works and Utilities of the Federal Government engaged consultants in 1992 to conduct a major study on the existing sewerage systems in Malaysia. Local governments were instructed by the Federal Government to place on hold all major sewerage projects pending the recommendations of the on-going study.

2.MAJOR REASONS FOR PRESENT STATUS
Drainage component:
The delay was caused by the lack of funding and the high implementation cost (e.g. land acquisition). Improvement of the drainage system is at present not considered high priority by the Government.
Sewerage component:
The proposed centralized system was too costly to implement. There is a strong possibility of reviving the project but with considerable scaling-down to get the Federal Government approval.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 クラン地域下水道・排水計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 204A/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Urban Transport in Greater Metropolitan Areas of Geroge Town,Butterworth and Bukit Mentajam

3.SECTOR
Transportation/Road

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Highway Planning Unit of the Ministry of Public Works

7.OBJECTIVES OF STUDY
Highway development

8.DATE OF S/W Nov.1978

9.CONSULTANT(S)
Central Consultant, Inc.

10.STUDY TEAM

No.of Members 36
Period Jul.1979-May.1982(34 months)

Total M/M	Japan	Field
109.94	7.80	102.14

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	497,100 (¥'000)
Contracted	470,259

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Metropolitan area of Penang State

2.PROJECT COST

(US$1,000) US$1=M$2.5

	Total Cost	Local Cost	Foreign Cost
1)	434,000		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

Long-term Plan:
(1) construction of 25 sections (total 110.6km); (2) improvement of 21 sections (80.6km); (3) construction of 8 new separated interchanges; (4) improvement of 33 separated interchanges; and (5) construction of terminals

High-priority projects:
(1) Outer ring road from CBD to Ayar Itam
(2) Outer ring road from Ayar Itam to the north coast
(3) Improvement of the west coast road and Frai Bridge Bulmatampo
(4) Widening of the Federal Route No. 1

4.CONDITIONS AND DEVELOPMENT IMPACTS

The proposed plan will alleviate the worsening urban transport problems in metropolitan Penang caused by the rapid urbanization and industrialization and increase of automobile traffic. The plan will alleviate traffic congestions in the CBD of George Town and Butterworth, and provide low-income classes better access to low-cost transportation means. The implementation of short-term measures (introduction of better traffic control) will improve the safety of transportation.

The plan will realize a high-mobility transportation system accessible from any part of the study area.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

A feasibility study was subsequently conducted on the priority roads.

(FY1992 Overseas Survey)

JICA's Masterplan Study has essentially been utilized for urban transport planning in metropolitan Penang.

2.MAJOR REASONS FOR PRESENT STATUS

(FY1992 Overseas Survey)

The study was usefull and necessary as Penang undergoes a more intensive pace of industrialization. The traffic study was conducted carefully and the data that was provided was quite believable.

3.PRINCIPAL SOURCE OF INFORMATION

①②

和名 ジョージタウン・バタワース道路計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 204B/82

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Urban Transport in Greater Metropolitan Areas of George Town,Butterworth and Bukit Mentajam

3.SECTOR
Transportation/Road

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Highway Planning Unit, Ministry of Public Works

7.OBJECTIVES OF STUDY
Central Consultant, Inc. F/S on the highway development

8.DATE OF S/W Nov.1978

9.CONSULTANT(S)
Central Consultant, Inc.

10.STUDY TEAM

No.of Members 24
Period Jul.1979-May.1982(34 months)

Total M/M	Japan	Field
109.94	7.80	102.14

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	497,100 (¥'000)
Contracted	470,259

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1) area around George Town
2) area around Butterworth

2.PROJECT COST
(US$1,000)
US$1=M$2.5

	Total Cost	Local Cost	Foreign Cost
1)	103,843	66,619	37,224
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1) Outer ring road of George Town (23.84km and 4 lanes)

2) Ring road of Butterworth (6 lanes in the section from the toll road of Route No.4 to Pulai interchange, and 4 lanes in other sections) which will serve to improve and restructure the existing transport system

Imp. Period: .1984-.1991 .1982-.1990

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
1) Project life of 25 years
Start of service 1987
Opportunity cost 12%
2) Project life of 25 years
Start of service 1988
Opportunity cost 12%

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The Federal Government has appointed new consultants in 1992 to review the JICA Study and undertake detailed engineering studies: ESA Jurutera Perunding and Zath Perunding for the Penang Outer Ring Road (ORR), and ECC or the Butterworth Ring Road (BRR). Under the 6th Malaysia Plan (1991 - 1995), the two studues have been allocated RM 10 illio (ORR) and RM 41.7 million (BRR).

2. The TOR for the studies include feasibility study (including he review of the JICA F/S concerning the proposed alignments, geotechnic study, EIA, traffic volumes), detailed engineering design, and scheduling for tender and construction. For the Penang Outer Ring Road, the consultants are expected to prepare tender documents, while for the Butterworth Ring Road, construction of certain seqments are included.

3. The costs of the two ring roads are estimated to total more than RM 200 million. The Federal Government will have to fund these projects, but is also considering the possibility of prizatizing certain road sepments.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
With rapid pace of development and industrialization, the traffic volume increased considerabley in Penang and Butterworth over the past decade and will continue to grow in the future, with the expected completion of the North-South Highway and the linking up with the East-West Highway. Therefore, the implementation of the projects is essential to disperse and distribute the growing traffic.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ジョージタウン・バタワース道路計画（フェーズII・ステージ1及びフェーズII・ステー {F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE MYS/S 306/82

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Kinabatangan River Basin Development Project

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Sabah Econiomic Planning Unit

7.OBJECTIVES OF STUDY
Water resource development (flood control, irrigation and power generation)

8.DATE OF S/W Oct.1979

9.CONSULTANT(S)
CTI Engineering Co., Ltd.
Chuo Kaihatsu Cor.

10.STUDY TEAM

No.of Members 9
Period Dec.1980-Mar.1982(15 months)

Total M/M	Japan	Field
68.70	35.15	33.55

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Survey
Geological Survey

12.EXPENDITURE

Total	148,759 (¥'000)
Contracted	138,406

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kinabatangan River Basin/Eastern Saba

2.PROJECT COST
(US$1,000)
(US$1=230Yen=2.3M$)

	Total Cost	Local Cost	Foreign Cost
1)	1,050,300	428,600	621,700
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Contents	Scope
Construction of dam (Midstream)	Volume of dam: 5.32 x 10cu.m Height: 50m approx.
Preparation of housing site	48,700ha (Area of land developed)
Generators	10.5MW (3 units)
Transmission line	100km

Imp. Period: Jul.1983-Dec.1992

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: No

EIRR1)	7.10	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The chief objective of the construction of a dam is flood control.
A long abandoned waste land of 107,000ha because of flood damage will become suitable for agricultural development.
The country will become rice export country instead. And power generation by the reservoir water is utilized for industrial development of Sandakan City, the second largest city in Saba.

5.TECHNICAL TRANSFER
1. Acceptance of Trainees: Visiting Asst. Director Chief engineer taken up study of basin development project for 3 weeks in Japan.
2. Preparation of Report: By harmoneous cooperation, both counterparts and assisting Japanese engineers were completed study of mainlyinitial planning of power

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

Indefinitely suspended after the completion of F/S, mainly owing to the lack of funds.

2.MAJOR REASONS FOR PRESENT STATUS
1. Difficulty of raising $600 million in foreign currency.
2. Difficulty of adjusting the existing land use.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 キナバタンガン河流域開発計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 305/82

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Reclamation Project of Ex-Mining Land for Housing Development and Other Purposes

3.SECTOR
Social Infrastructures/Architecture & Housing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Federal Territory (dissolved in 1985)

7.OBJECTIVES OF STUDY
To examine the possibility of utilizing the ex-mining land for housing development

8.DATE OF S/W Mar.1979

9.CONSULTANT(S)
Kiso-Jiban Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 7
Period Dec.1979-Mar.1981(16 months)

Total M/M	Japan	Field
17.99	9.12	8.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	135,700 (¥'000)
Contracted	85,954

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kuala Lumpur metropolitan area

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
US$1=M$2.2	1)		
	2)		
	3)		

3.CONTENTS OF MAJOR PROJECT(S)

The project aims to utilize the ex-mining area for developing low-cost housing projects in metropolitan Kuala Lumpur. During the first stage, it will be necessary to provide housing for 233,000 squatters (25% of the population of the Federal Territory), at a cost of US$4,900 - 8,320 per unit. The following actions will be necessary before implementation.

1) To conduct the subsurface exploration in the ex-mining area to prepare a land classification map.
2) To formulate land use and housing development plans and thereby to improve the soft ground.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

The ex-mining area occupies 14% of the land area of the Federal Territory. It is relatively easy to develop not only housing but also sewerage, green areas and parks, roads and other infrastructural facilities.

The housing development for sale and rent at commercial prices will be feasible. At subsidized prices, low-story houses built on the firm ground will be feasible.

5.TECHNICAL TRANSFER

1) Participation of the counterparts in the JICA training program
2) OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

Owing to the changes in development policy, the project implementation was postponed indefinitely. The Ministry of Federal Territory, which had been the counterpart agency for the JICA study, was dissolved in 1985. Some ex-mining areas have bee and are being developed as housing projects by the private Sector.

2.MAJOR REASONS FOR PRESENT STATUS

The development policy has been changed to privatize the development of the ex-mining areas.

3.PRINCIPAL SOURCE OF INFORMATION

①②

和名 錫鉱埋立跡地住宅開発計画

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

PROJECT SUMMARY (M/P)

ASE MYS/S 102/83

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Railway Development Plan

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Malaysian Railway Administration

7.OBJECTIVES OF STUDY
Drawing up of a M/P covering improvement, double tracking, and electrification of a conventional line and construction of a new standard line for reinforcing the national railway.

8.DATE OF S/W Apr.1982

9.CONSULTANT(S)
Japan Railway Technical Service

10.STUDY TEAM

No.of Members 28

Period Sep.1982-Oct.1983(13 months)

Total M/M	Japan	Field
119.63	79.48	40.15

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	585,109 (¥'000)
Contracted	294,421

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Sections : Butterworth-Johor Bahru(West Courst Line) ;
Kuala Lumpur-Kuantan-Kota Bharu
(New East-West line)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	4,635,600		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

As alternatives for railway development, the four cases of A-A, B-B, C-B, and D-C were established. A-A was then proposed as the master plan having a target year of 2005.

case A-A :	West Coast Line	New East-West Line
	Standard gauge	Standard gauge
	Electrification	Electrification
	Double tracking	Double tracking

Case A-A EIRR 13.8% FIRR 9.4%

4.CONDITIONS AND DEVELOPMENT IMPACTS

Precondition : 1. Status of the world economy in the future and its impact 2. Highly accurate technical studies(especially, geological studies) 3. Methods for gradual implementation 4. Personnel training to raise level of technical expertise 5. Construction cost reduction and system for obtaining governmental assistance 6. Expansion of the scope of work and improvement in work efficiency.

Development impacts : 1. More appropriate distribution of population and industries on a region - wide basis 2. Future development of such cities as Penang, Johor, Kota Bharu, Kuala Trengganu, and Kuantan, which are 300 to 500km from Kuala Lumpur, into regional centers as a result of the rail mode's advantageous intercity transport characteristics at the aforesaid distances 3. Energy savings 4. Large-Volume and fixed-pattern freight transport (iron, cement, oil, etc.) between key points possible

5.TECHNICAL TRANSFER

Investigations were conducted with the cooperation of counterparts. (Methods of investigation were transferred)

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

Following this study, a F/S was conducted in 1984 and 1985 on the proposed A-A as a master plan.

The master plan has been utilized as a reference material for drawing up railway policies. The West Coast Line (Rawang-Seremban) is part of the Double Tracking Project now under implementation (OECF Loan).

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 鉄道整備計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 307/83

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
VHF/FM Broadcast Coverage for the States of Sabah and Sarawak

3.SECTOR
Communications & Broadcasting/Broadcasting

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit, Prime Minister's Department
Jabatan Telekom Malaysia

7.OBJECTIVES OF STUDY

8.DATE OF S/W Mar.1982

9.CONSULTANT(S)
Integrated Technology Inc.

10.STUDY TEAM

No.of Members	Total M/M	Japan	Field
14	22.00	18.67	3.33

Period Jun.1982-Mar.1983(10 months)

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	55,208 (¥'000)
Contracted	32,256

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Saba and Sarawak

2.PROJECT COST (US$1,000) (US$1=250Yen)

	Total Cost	Local Cost	Foreign Cost
1)	57,500	36,500	21,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- FM transmitting stations(22 stations):
  7 new stations; 15 stations to be attached to the existing TV stations
- Construction of FM studio
- FM transmitters:
  6 units for each transmitting stations

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
FM broadcasting will contribute to the improvement of education and the diffusion of knowledge and skills.

5.TECHNICAL TRANSFER
1) OJT during the study
2) Participation of 2 counterparts in the JICA training program

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The implementation of the VHP/FM broadcast project was divided into three phases, and Phases 1 and 2 were completed with the Federal Government funds. Regarding East Malaysia, one station (Bukit Nyabau) was established during Phase 2. Of the total of 24 stations proposed for Phase 3, 8 stations are in Sabah and 11 stations in Sarawak and they are being implemented with the Federal Government funds under the 6th Malaysia Plan.
Phase 1: Jul.1983 - Dec.1985 (4 stations at RM 3 million)
Phase 2: Dec.1987 - Dec.1990 (8 stations at RM 10 million)
Phase 3: Construction expected to commence in 1993/94 pending the awarding of tenders (24 stations at RM 35 million)

2. The recommendations of the JICA study have been closely adhered to where feasible. But the project design or components proposed by the JICA study were changed in certain cases. Regarding East Malaysia, three stations of Bukit Setiam (Bintulu), Mukit Tiong (Lawas) and Bukit Lima (Sibu) have been added to the original eight proposed by the JICA study. One more station (Sigapon near Keningau) has been added in Sabah.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
1. A Major reason is the Government's social obligation to ensure the radio coverage as wide as possible for dissemination of information.
2. The increased revenue from radio advertising encouraged the Government to fully implement the recommendations.
3. The demand for higher quality radio broadcast increased (especially after Phase 2) owing to the improved standard of living.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 東マレイシアＦＭ放送網整備計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 206A/84

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
JB-Transplan:Road Construction and Improvement Project in Johor Bahru and its Conurbation

3.SECTOR
Transportation/Road

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Economic Planning Unit
Public Works Dept., Johor

7.OBJECTIVES OF STUDY
Formulation of the integrated transport system through the year 2000

8.DATE OF S/W Jan.1981

9.CONSULTANT(S)
Fukuyama Consultants International, Inc.
Chodai Co., Ltd.

10.STUDY TEAM

	Total M/M	Japan	Field
No.of Members	11		
Period	May.1981-Dec.1983(0 months)		

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
qeological survey
topographic survey

12.EXPENDITURE

Total	443,511 (¥'000)
Contracted	223,742

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Johor Bahru Urban Area

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
1) Road development plan
2) Public transportation plan
3) Transportation terminals
4) Traffic control 5) Improvement of Johor Bahru causeway

4.CONDITIONS AND DEVELOPMENT IMPACTS
The study proposed the inteqrated transportation system (JB-Transplan) toward the target year of 2000.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)
A feasibility study was subsequently conducted on four priority projects. The Masterplan was adopted as part of the Johor Bahru Structure Plan.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ジョホールバル道路交通計画

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

PROJECT SUMMARY (M/P+F/S)

ASE MYS/S 206B/84

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
JB-Transplan:Road Construction and Improvement Project in Johor Bahru and its Conurbation

3.SECTOR
Transportation/Road

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Economic Planning Unit
Public Works Detp., Johor

7.OBJECTIVES OF STUDY
Feasibility analysis of priority projects proposed by the master plan

8.DATE OF S/W Jun.1982

9.CONSULTANT(S)
Fukuyama Consultants International, Inc.
Chodai Co., Ltd.

10.STUDY TEAM

No.of Members 11

Period May.1981-Dec.1983(19 months)

Total M/M	Japan	Field
72.63	9.27	63.36

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
geological survey topographic survey

12.EXPENDITURE

Total	443,511 (¥'000)
Contracted	223,742

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Johor Bahru and its adjacent areas

2.PROJECT COST

(US$1,000)
US$1=M$2.3

	Total Cost	Local Cost	Foreign Cost
1)	155,457	100,652	54,804
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1) Construction of new road
   Johor Bahru - South Pasir Gudang (20km)
2) Traffic separation on the causeway
   improvement of the existing road (310ha in CBD)
3) Construction of new access road to Johor Bahru Toll Road (4km)
4) Inner ring road and trolley routes
   New construction and improvement (8km)

Imp. Period: .1985-.2000

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:
Conditions:
The calculation of IRR is based on the O/D motorized traffic projections made during the master plan study on the basis of the interview survey of owner drivers. The projections were made for the years 1990 and 2000. Road classes were determined according to the standards of the Ministry of Public Works.
Development impacts:
The projects will contribute to the development of new industries and port operations, the alleviation of traffic congestions in the CBD, and shortening of travel time, reduction of transportation costs and decrease of traffic accidents.

5.TECHNICAL TRANSFER
OJT for the counterparts on feasibility analysis

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The Public Works Department appointed consultants to undertake a detailed design study of the Inner Ring Road and Trolly Route Project during the period of 1992 - 1993. The implementation is scheduled to begin in Aug. 1993 and to end in 1999.

2. Two other projects, i.e., the Johor Bahru - Pasir Gudang Southern Link which was listed in the 6th Malaysia Plan and the New Access Road to Johor Bahru Toll Road, have been held in abeyance owing to the shortage of funds.

3. In relation to the proposed traffic separation on the causeway (i.e., improvement of the existing causeway), the detailed design was completed. Moreover, the Government has announced a proposal to build a second causeway.

4. Some short-term JICA recommendations to improve the traffic situation in Johor Bahru have been implemented. For instance, Jalan Wong Ah Fook and Jalan Tun Razak major roads in the CBD were turned into one-way streets.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
As Johor Bahru develops, it is imperative that a comprehensive transport plan be developed to ease the traffic congestion in the town area and its urban environs. As such, many M/P proposals will eventually be implemented.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ジョホールバル道路交通計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 308/84

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Perlis Port Development Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit Public Works Dept., Ministry of Transport

7.OBJECTIVES OF STUDY
Master plan, covering the period up the 2000.
Short Term Development Plan up to the year 1990.

8.DATE OF S/W Mar.1983

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 9
Period Jun.1983-Mar.1984(9 months)

Total M/M	Japan	Field
46.83	29.00	17.83

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Natural Condition Survey
36,461 thousand yen

12.EXPENDITURE

Total	145,809 (¥'000)
Contracted	142,594

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Perlis

2.PROJECT COST
(US$1,000)
(US$1=2.3M$)

	Total Cost	Local Cost	Foreign Cost
1)	2,473	2,100	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

(Item)	(Quantity)
Quay(-4.0m)	410m
" (-3.5m)	550m
Dredging	1,412 thousand cu.m
Reclamation	1,086 "
Revetment	1,000m
Road	51,950m

Imp. Period: Jan.1985-Dec.1989

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	9.90	FIRR1)	4.10
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
As premises, target years of demand forecast are the year 1990, 2000, and cargo handling volume was assumed to be 500 thousand ton, 835 thousand ton.
The area surrounding the port have mining and manufacturing industries such as cement and sugar refining, and development of industrial tracts in these areas is now in progress. It's expected that expansion of the port's commercial function will result in accelerated local and regional development. Expansion of the fishing port and ferry function should also have positive effects.

5.TECHNICAL TRANSFER
One counterpart was accepted for training, espeecially on F/S theory

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

Oct.1985	OECF loan pledged
Nov.1985	E/S was signed, but the loan agreement fell through.
1987	Malaysian Government financed a detailed design study. (the project estimated to cost RM 31 million) The implementation was delayed, but the project was included in the National Port Plan announced in 1988.
1988-1989	A detailed design study was conducted but on a reduced scale. The lowest tender was considerably higher than the budgeted amount and the project implementation stalled.
1990	Owing to the shortage of funds, the Government took a temporary measure of implementing a detailed design study of only the extension of the existing passenger jetty.
Mar.1993	The passenger jetty extension is under implementation by the Public Works Dept. at a cost of RM 23.39 million and is expected to be completed by Dec.1993, in time for the Langkawi International Martime and Air Exhibition.

2.MAJOR REASONS FOR PRESENT STATUS
The project cost was too large, and the Government was financially constrained.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ペルリス港開発計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 309/84

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Perlis-Kedah-Pulau Pinang Regional Water Resources (National Water Resources Study)

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit

7.OBJECTIVES OF STUDY
Water resources development

8.DATE OF S/W Sep.1982

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Ohba Co., Ltd.

10.STUDY TEAM

No.of Members 20
Period Dec.1982-Mar.1985(28 months)

Total M/M	Japan	Field
174.56	113.44	61.12

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic mapping

12.EXPENDITURE

Total	471,245 (¥'000)
Contracted	166,915

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Belis River, Muda River basin, the stale at koda

2.PROJECT COST

(US$1,000) (US$1=2,312M$)		Total Cost	Local Cost	Foreign Cost
	1)	41,800	32,950	8,850
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

Structure	Scale
Gravity dam	Height 41m
Reservoir	Effective storage 102MCM Firm yield 66MCM/year
Discharge capacity of outline facilities	0.2~15cu.m/s

Imp. Period: Jun.1987~Dec.1989

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	14.80	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Baris dam was designed as a part of water supply system in P.K.P areas. Firm yield is mainly divided into irrigation water, industrial water and river maintenance flow on the basis of the overall water distribution plan of P.K.P.area. The project benefit was estimated as the sum of the benefit per unit yield for the respective purposes.
Firm yield of 66MCM/year is supplied to the water deficit in the P.K.P. area.

5.TECHNICAL TRANSFER
1) training in Japan
2) Survey by local consultant:
soil and geological investigations

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Indefinitely suspended after the completion of F/S, owing to the budgetary constraints.

2.MAJOR REASONS FOR PRESENT STATUS
1) Austerity policy necessitated by fiscal deficits.
2) Inter-provincial adjustments are not settled between Penang and Kedah.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ペルリス・ケダ・プラウピナン地域水資源開発計画

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

PROJECT SUMMARY (F/S)

ASE MYS/A 301/84

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Afforestation and Settlement Project in Division V of the Bengkoka Area of the State of Sabah

3.SECTOR
Forestry/Forestry & Forest Conservation

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Sabah Forest Department
Sabah Forestry Development Authority (SAFODA)

7.OBJECTIVES OF STUDY
To promote tree plantation and settlement of people on degraded forest land caused by shifting cultivation and so forth.

8.DATE OF S/W Sep.1983

9.CONSULTANT(S)
Japan Overseas Forestry Consultants Association

10.STUDY TEAM

No.of Members	9	
Period	Feb.1984-Sep.1984(8 months)	
Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	122,966 (¥'000)
Contracted	111,470

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Bengkoka Area of the state of Sabah(36,000ha)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	90,783	76,087	14,696
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Tree species : Acacia monaqium(9,000ha)
Infrastructure arranqement :
- Trunk road 46km
- Branch road 135km
- Power distribution
- Water supply facilities
- Settlement 3,000 immiqrants for 400 households at project site

*The cost above pertains to the entire period of 50 years.

Imp. Period: .1984-.2034

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	16.10	FIRR1)	11.50
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
-Settlement of shifting cultivator, improvement of local people's income and improvement of forest resources
-FIRR is calculated only for the afforestational phase
-Annual cash income will be in the black 17 years after cutting starts and cumulated deficit will solve after 22 years

5.TECHNICAL TRANSFER
Acceptance of one C/P participant

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The Bengkoka Afforestation and Settlement Project (BASP) was started in 1979 with the objetive to refforest 36,000 ha in the Bengkoka area and resettle 2,000 families. To date, divisions I - III with over 10,000 ha, including a nursery in Division IV, have been developed by the government funds and a World Bank loan.

2. Sabah Forestry Development Authority (SAFODA) was keen to obtain a loan to develop Division V, and prepared an implmentation prograin (sometime after Nov. 1984). But the project implemertation was held off because of yen appreciation.

3. Another master plan study was commissioned and completed in 1989, and it estimated a cost of about US$ 50 million (including the cost of a chip board mill) to refforest an area of 50,000 ha.

4. SAFODA is currently negotiating with a Japanese consortium to develop Bengkoka into a commercial refforestation project for pulp wood. SAFODA is also undertaking research on acacia mangium.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
1. Inability to obtain an appropriate type of financing
2. The IRR was low and the project area was small in the original proposal (Division V), and hence, the economy of scale was difficult to achieve.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 サバ州ベンコカ地区造林・入植計画

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

PROJECT SUMMARY (M/P)

ASE MYS/S 103/85

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Integrated Development of South Trengganu

3.SECTOR
Development Plan/Integrated Regional Development Plan

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Trengganu State Economic Planning Unit

7.OBJECTIVES OF STUDY
Formulation of an integrated regional development plan and pre-feasibility analysis of priority projects

8.DATE OF S/W Apr.1982

9.CONSULTANT(S)
Pacific Consultants International
Mitsubishi Research Institute

10.STUDY TEAM

No.of Members	22		
Period	Jan.1984-Aug.1985(19 months)		
	Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 295,164 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Southern part of Trenqganu State (5,370 sq.km, approx. one third of the state total land area)

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
1) Industry: industries utilizing petroleum and natural gas
2) Agriculture: development of the inland area (Ketanqah)
3) Transportation: roads, airports, ports, etc.
4) Flood control: major rivers and the coastline
5) Tourism: coastal and inland areas
6) Urban development: development in association with coastal industrial location
7) Human resource development: politechnics, R & D organization and vocational training centers

* The proposed projects are not costed.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development impacts:
1) Maximum utilization of local resources
2) Urban and rural development for stable labor supply and settlement

5.TECHNICAL TRANSFER
1) Participation of counterparts in the JICA training program
2) OJT for the counterparts through joint undertaking of the study

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)
(FY1992 Overseas Survey)
1. When the study was being undertaken, decentralization of industries was one of the most important policies in Malaysia. Around 1986, the policy emphasis shifted to industrial concentration in urban areas. Trengganu State is well endowed with petroleum and natural gas, and the government emphasis in regional development was placed on more underdeveloped states.
2. The recommendations of the Study are utilized as guidelines for planning in the State of Trengganu. So far, the following two studies have been conducted following the recommendations.
(i) Dungun Structural Plan
(ii) Upgrading the Management of South Trengganu
3. In Trengganu State, there are three high level committees which have been formed in relation to the said development plan.
(i) Petroleum Industry and Manpower Committee
(ii) Agriculture and Fishing Committee
(iii) State Planning Committee

2.MAJOR REASONS FOR PRESENT STATUS
The Federal and the State Governments' policy.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 トレンガヌ南部地域総合開発計画

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

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1993

ASE MYS/S 104/85

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Regional Water Resources of South Johor (National Water Resources Study)

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Economic Planning Unit(EPU), Drainage and Irrigation Department (DID), and Public Works Dept.(PWD)

7.OBJECTIVES OF STUDY
To formulate a Master plan for development of water resources in South Johor

8.DATE OF S/W Mar.1984

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
CTI Engineering Co., Ltd.
System Science Consultants

10.STUDY TEAM

No.of Members 20
Period Jul.1984-Dec.1985(18 months)

Total M/M	Japan	Field
107.31	65.22	42.09

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Boring survey (financed by GDHT)

12.EXPENDITURE

Total	294,504 (¥'000)
Contracted	235,835

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Sayong Dam(Kota Tinggi district)

2.PROJECT COST

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	168,000		
(US$1=2.41M$)	2)			

3.CONTENTS OF MAJOR PROJECT(S)
Sayong Dam : Gross storage volume: 176 x 1,000,000 sq.m
Effective storage volume: 128 x 1,000,000 cu.m
Dam height: 31 m
Dam length: 1,140 m
Embankment volume: 0.81 x 1,000,000 cu.m

4.CONDITIONS AND DEVELOPMENT IMPACTS
1) To formulate a water supply plan up to the year 2005 for Johor Bahru and Singapore.
2) To improve human living conditions by the development of domestic and industrial water.
3) To ensure stable economic and social activities by implementing flood control measures.

5.TECHNICAL TRANSFER
1) One trainee from Malaysia took JICA training course. 2) Instruction on the production of report and analysis of boring log (geological study)

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ☐ In Progress or In Use
- ☐ Delayed
- ■ Discontinued

(Description)
The State Government had seriously considered building the Sayong Dam following the recommendations of the JICA Study. However, a subsequent study commissioned by the Federal and Singapore governments recommended instead the construction of the Linggiu Dam because of its larger water retention capacity. The Linggiu Dam was considered as the next best alternative after the Sayong Dam in the JICA Study. Therefore, the Sayong Dam appears unlikely to be built to the scale proposed by the JICA Study.
The water resources available at Sayong will nonetheless still be tapped pending the Federal Government's decision to build a weir at the site.

2.MAJOR REASONS FOR PRESENT STATUS
The Federal and the State Goverments' policy decision on the other alternative.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 南ジョホール地域水資源開発計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 310/85

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Tatau-Kapit TrunkRoad Project in Sarawak

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit, Sarawak State Government of Malaysian Federal Government

7.OBJECTIVES OF STUDY
(1) Analysis of economic and technological merit
(2) Technical transfer

8.DATE OF S/W Feb.1982

9.CONSULTANT(S)
Mitsui Consultants Co., Ltd.
Pasco International Inc.

10.STUDY TEAM

No.of Members	16	
Period	Jul.1982-Dec.1982 (10 months)	
	May.1984-Aug.1984	
Total M/M	Japan	Field
26.38	15.50	10.88

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	241,601 (¥'000)
Contracted	134,850

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Tatau-Kapit, Sarawak

2.PROJECT COST

(US$1,000) (US$1=M$2,376)		Total Cost	Local Cost	Foreign Cost
	1)	643	381	262
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Construction of a new trunk road (138.8km)

Imp. Period: .1982-.1984

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	5.89	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
This project contributes not only to the provision of access road for the construction of the hydro-electric power station, but also to the development of lumber, mineral and tourism industries.

5.TECHNICAL TRANSFER
(1) Reception of trainees
(2) Hiring of local consultants in the sectors of designing and survey.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
In the 6th Malaysia Plan, RM 2 million is allocated for the project, but the amount is not adequate to implement the entire project (138.8 km). No attempt has been made to undertake a detailed design study and the State Governmnt has requested that the allocated budget be used elsewhere. The project is deemed discountinued.

2.MAJOR REASONS FOR PRESENT STATUS
The Sarawak State government has accorded low priority to the project.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 タタウ・カピト幹線道路計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 311/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
New East-West Railway Project and the West Coast Railway Project

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Malaysian Railway Administration

7.OBJECTIVES OF STUDY
F/S for constructing on east-west line that connects the eastern coast and the capital Kuala Lumpur and a western line that runs in parallel with a conventional line along the western coast

8.DATE OF S/W Feb.1984

9.CONSULTANT(S)
Japan Railway Technical Service

10.STUDY TEAM

No.of Members 16
Period Jun.1984-Dec.1985(18 months)

Total M/M	Japan	Field
72.73	49.59	23.14

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	241,488 (¥'000)
Contracted	235,765

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Between the eastern and western regions of the country and regions along the western coast

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	1,231,000	355,000	876,000
2)	4,010,000	2,039,000	1,971,000
3)			

3.CONTENTS OF MAJOR PROJECT(S)
-East-West line construction----558km
(electrification, double track, standard gauge)

-Western line consruction-----736km
(electrification, double track, standard gauge)

Imp. Period: .1986-.2009

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR	FIRR
EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

1. Preconditions
Transport demand was estimated for the years 1991, 1996, 2001, and 2005. Passenger traffic was estimated based on data from an interview survey having 2700 samples, while freight traffic estimates were determined via freight items (9 in all), taking into consideration modal characteristics and development plans.

2. Development effects
Expected effects from development are transport time savings, reduction in costs, increase in employment opportunities, promotion of structural change in industry, inducement of travel, regional development, technological spin-offs, alleviation of public nuisances, etc.

5.TECHNICAL TRANSFER
One counterpart received training on F/S methodology.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Although part of double tracking for the western line is under way, this project was cancelled because of the implementation of the south-north line.

2.MAJOR REASONS FOR PRESENT STATUS
The Government changed its policy.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 鉄道整備計画（東西線・西線）

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

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1993

ASE MYS/S 105/86

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Klang Valley Transportation Study

3.SECTOR
Transportation/Urban Transportation

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Klang Valley Planning Secretariat, Prime Minister's Department

7.OBJECTIVES OF STUDY
Formulation of a transportation system for Klang Valley Area

8.DATE OF S/W Aug.1984

9.CONSULTANT(S)
Fukuyama Consultants International, Inc.
Pacific Consultants International

10.STUDY TEAM

No.of Members 12
Period Nov.1984-Mar.1987(29 months)

Total M/M	Japan	Field
101.79	3.10	98.69

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	356,832 (¥'000)
Contracted	360,840

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Klang Valley Area (2,842 sq.km) in the central part of Peninsular Malaysia

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	316,000		
2)	757,000		

3.CONTENTS OF MAJOR PROJECT(S)
- Introduction of mass transit railway (five lines, 137km)
- Construction and improvement of roads
- Traffic control plan
- Construction of transport terminals

4.CONDITIONS AND DEVELOPMENT IMPACTS
The study formulated a transportation master plan for the Klang Valley Area centering in Kuala Lumpur, and proposed a short-term plan for incorporation into the 5th five-year national development plan (1986 - 1990)

5.TECHNICAL TRANSFER
1) Acceptance of 3 counterparts by the JICA training program (on physical planning of urban transportation)
2) OJT and a seminar

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- □ Delayed
- □ Discontinued

(Description)

Based on the recommendatinos of this study, the following JICA feasibility studies were undertaken.

1. Transportation Facilities Projects in Klang Valley (1987 - July 1989)

The Malaysian Highway Authority undertook a detailed design study on Shah Alam Expressway, and a private company (PLUS) is expected to implement the project. The Klang Port Authority undertook a detailed design study on Klang Freight Terminal, and a private company (KCT Berhad) was awarded the contract to implement.

2. Rail-based Commuter Services in Klang Valley (Jan. 1990 - Feb. 1991)

This study was conducted simultaneously with another study (the Double Tracking Project) by the Malaysian Government. The proposals and projection of the JICA study which were deemed suitable were intergrated into the Double Tracking Project (DTP), and is now under implementation as part of the DTP. Financing was obtained from OECF* of Japan and UK's ODA in addition to the Govt. funds, and the DTP is expected to be completed in mid-1995.

* The OECF loan (19,444 million yen) covers the following components.
(1) double tracking from KL to Klang Port (43km), from KL to Sentul (2km) and the branch lin to Subang Airport (7km)
(2) double tracking from Rawang to Seremban (105km)
(3) signalling and telecomunication systems of the above
(4) 18 sets of diesel railcars.

2.MAJOR REASONS FOR PRESENT STATUS

Malaysia is pursuing economic development to become a developed country by the year 2020. As partof their efforts, the Government aims to establish and operate an effective urban transport system in and around Kual Lumpur. The doubl tracking of national railways and the strenghening of urban and intra-city transport systems are being implemented to alleviate growing road trafficecongestions and environmental hazarda.

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 クランバレー交通計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 312/86

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Kuantan-Kota Kinabalu Submarine Cable Project

3.SECTOR
Communications & Broadcasting/Telecommunication

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Syarikat Telekom Malaysia Berhad (formerly Jabatan Telekom Malaysia)

7.OBJECTIVES OF STUDY
Selection of the most suitable cable route, and system design

8.DATE OF S/W Feb.1986

9.CONSULTANT(S)

10.STUDY TEAM

No.of Members 20

Period Jun.1986-Jan.1987(7 months)

Total M/M	Japan	Field
27.00	7.00	20.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	284,940 (¥'000)
Contracted	277,347

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Ocean Area between Kuantan in Pensinsula Malaysia and Kota Kinabaru, Sabah in East Malaysia

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	85,000		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Contents: Construction of Optical Fiber Submarine Cable System.

Consists of:
-Kuantan Cable Landing Station Facilities
Terminal Equipment Power Supply Equipment Air conditioning system

-Kota Kinabaru Cable Landing Station Facilities -Ditto-

-Optical Fiber Submersible Plant Cables (1,500km distance)
Repeaters

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

Conditions of IRR Calculation :
1) In order to construct on optical fiber submarine cable system between Kuantan in the Peninsular Malaysia and Kota Kinabaru, Sabah in the east Malaysia, the landing sites survey and ocean survey shall be implemented.
2) The traffic forecast and estimation of truck circuits between east and west Malaysia up to the year 2015 shall be executed.
3) The basic design for submarine cable system based on the survey results and study results of traffic and trunk circuits shall be made.

Development Impacts :
It is fully expected that traffic conditions in the east Malaysia will be much improved by means of the connection between east and west Malaysia through optical fiber submarine cable system, and the political equilibrium will be fostered by means of integration between east and west Malaysia.

5.TECHNICAL TRANSFER
(1) OJT: Participation and/or observation in the shipboard activities. (6 counterparts)
(2) Lectures & Observations: Optical Fiber Submarine Cable System, Cables, Repeators and Terminal Equipment. Observations of (2 counterparts)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
1. The Letter of Intent was issued by Syarikat Telekom Malaysia Berhad (formerly Jabatan Telecom Malaysia) on 7 April 1989.

2. The negotiation started in 21 April 1989, and the contract was signed in June 1989 with the Japanese Consortium (NEC Corporation and Mitsui & Co. Ltd.)

3. The project was financed by the supplyer's credit supported by the Export-Import Bank of Japan. The project design was changed regarding (i) the system capacity and (ii) a minor route diversion in the Indonesian EEZ, owing to the increased traffic forecast and the request from Indonesian authorities. The total investment cost was about 6.85 billion yen, or RM 145 million.

4. The System has been in service since 31 Dec.1990.

2.MAJOR REASONS FOR PRESENT STATUS
The increase in system capaciy and better communication were necessary to meet the growing traffic demands between Peninsular Malaysia and Sabah/Sarawak.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 クアンタン～コタキナバル海底ケーブル建設計画

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

PROJECT SUMMARY (F/S)

ASE MYS/S 313/87

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Computerised Area Traffic Control System in Penang

3.SECTOR
Transportation/Urban Transportation

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Economic Planning Unit, and Engineering Dept. of the Municipal Council of Penang Island (MPPP)

7.OBJECTIVES OF STUDY
Formulation of a plan to improve the urban traffic control in Penang and design of the area traffic control system

8.DATE OF S/W Feb.1986

9.CONSULTANT(S)
Fukuyama Consultants International, Inc.
Central Consultant, Inc.

10.STUDY TEAM

No.of Members 8
Period Jul.1986-Jan.1988(19 months)

Total M/M	Japan	Field
43.87	2.40	41.47

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	164,764 (¥'000)
Contracted	155,803

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Penang Municipality

2.PROJECT COST
(US$1,000)
(US$1=2.71Rgt.)

	Total Cost	Local Cost	Foreign Cost
1)	106,553		
2)	19,741		
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- Area traffic signal system
  installation of signals (149 locations)
  CCTV cameras (16 locations)
  Sign boards (7 locations)
- Road improvement (25.1km)
- Parking buildings (4 locations)
- Improvement of bus services (purchase of 140 busses)
- Pedestrian paths (10.85km)

Note: Cost 2) is only for the traffic signal system.

Imp. Period: Jan.1986-Dec.2000

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	22.70	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
- Project life of 15 years
- economic analysis on 149 interchanges (to be installed in 4 phases)

Development impacts:
- alleviation of traffic congestions
- better monitoring over mal-functioning equipment
- Better response to emergency vehicles
- Better control over traffic speed and traffic volume
- Reduction of traffic noise and air pollution

5.TECHNICAL TRANSFER
Training of the counterparts in Japan (JICA program) Joint undertaking of the study

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

The first phase of the project consisting of 16 junctions has been already implemented with some changes at the cost of RM 2.3 million. Although CCTV was recommended for all 16 junctions by the JICA study, it was installed only at two junctions (Dato Karamat and KOMTAR).

Phases 2 and 3 which would equip another 37 junctions throughout Georgetown cannot proceed because of financial costraints. However, the Penang Island Municipal Council (MPPP) is unlikely to implement the remaining phases without another feasibility study, in view of the new highways currently under construction (i.e. the Coastal Road and the Outer Ring Road), among others. The traffic situation will become more complex with the linking up of the North-South Highway (from Sungei Petani to Perai,and from Perai to Taiping), and additionally the linking up of the East-West Highway in the not too distant future. The MPPP feels it necessary to wait for the completion of the major road works before initiating a new study over traffic patterns.

2.MAJOR REASONS FOR PRESENT STATUS

Financial constraints made it necessary to delay the implementation of the later phases. In addition, it is considered prudent to postpone the implementation, because compex changes in traffic patterns are expected from the constructin of the major roads and other linkups, requiring another feasibility study.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ペナン市都市交通コンピューター制御システム

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

PROJECT SUMMARY (F/S)

ASE MYS/A 302/87

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Tanjong Karang Irrigation Development Management Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department of Irrigation and Drainage (DID)
Ministry of Agriculture

7.OBJECTIVES OF STUDY
The objectives of the study are to identify waterrelated problems faced in Tnjong Karang Irrigater Scheme, and to recommend solutins to these problens to stabilize and sustain rice production

8.DATE OF S/W Mar.1986

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
kyowa Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 11
Period May.1986-Jun.1987(14 months)

Total M/M	Japan	Field
80.37	32.80	47.57

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	221,818 (¥'000)
Contracted	142,972

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Coastal area in northwest of Selangoal
(Area: 20,000ha, Farm household 19,500)

2.PROJECT COST

(US$1,000) (US$1 = M$2.6)		Total Cost	Local Cost	Foreign Cost
	1)	10,384	10,384	
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1. Irrigation area: 18,980ha
2. Rehabilitation/Improvement of the existing irrigation system
 (1) Berunam head race: Heightening of requlation gate, electrical operation of gate, etc.
 (2) Main canal: Widening of canal section, construction of water control facilities, etc.
 (3) Secondary canal: Construction and heightening works.
 (4) Distribution Canal: Concrete lining of canal, rehabilitaion of check gates and weir
 (5) Farm road: Extension of farm road network (457 km)
3. Procurement of O/M Apparatus

Imp. Period: .1987-.1990

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	FIRR1)
EIRR2)	FIRR2)
EIRR3)	FIRR3)

Conditions and Development Impacts:

Conditions:
 The following recommendations need be implemented to ensure full benefits from the project.
1) Improement of facilities
2) Procurement of maintenance equipment
3) Institutional development
4) Establishment of a monitoring system
5) Water management pilot project
6) Training program and follow-up program

Development Impacts:
1) Double cropping of paddy
2) Cropping intensity will rise from 1.77 to 2.0.
3) Increase of the average yield from 6.3 tons/ha to 9.1 tons/ha
4) Annual paddy production will increase from 99,600 tons to 167,000 tons.

* IRRs are not calculated.

5.TECHNICAL TRANSFER
1.Invite 2 C/P
2.OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)
 The detailed design study was undertaken by the Drainage and Irrigation Dept. (DID) during 1986-1992. The recommendations of the JICA study was utilized except for some minor modificatons. The Malaysian Government allocated RM 4,848 million, and the construction began in Oct 1986 and is scheduled to end in Jan.1995.

Notes:
1. The two automatic upstrem water level control structures had been constructed in the main canal at Sungai Leman and Sungai Haji Deraini as recommended by the JICA study, but they do not function as designed, either owing to the design itself or to insufficient water supply. At the moment, they are operated manually.
2. To date, 60 - 70% of the water supply problems in Kuala Selangor have been solved. Water shortfalls only occur during the drought, affecting farmers whose lands are located at the far end of the main canal.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
1. Socio-economic impact (reduction of rural poverty)
2. The National Agricultural Policy emphasizes the use of suitable land for intensive paddy production.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 タンジョンカラン灌漑計画

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

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1990
Revised Mar.1993

ASE MYS/S 207A/88

I. OUTLINE OF STUDY

1.COUNTRY Malaysia

2.NAME OF STUDY
Flood Mitigation of the Klang River Basin

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Economic Planning Unit (Prime Min. Dept.)
Drainage and Irrigation Dept. (DID)

7.OBJECTIVES OF STUDY
Flood control

8.DATE OF S/W Mar.1987

9.CONSULTANT(S)
Pacific Consultants International
Nihon Koei Co., Ltd.

10.STUDY TEAM

No.of Members	12	
Period	Sep.1987-Jan.1989(17 months)	
Total M/M	Japan	Field
89.56	43.39	46.17

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
topographic survey installation of water meters

12.EXPENDITURE

Total	272,978 (¥'000)
Contracted	264,888

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Klang River basin (1,288 sq.km)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	238,000		
US$1=130yen=M$2.55	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Implementation of the master plan is devided into three phases, with a total period of fifteen years.
1) Phase 1 (Urgent Project) River improvement of the main river and tributaries for 10.4km length, construction of retention pond with capcity of 2.7 million m3, construcion of diversion channel of 3.25 km in length and drainage facilities in low-lying area of the city (Pumping station Q=2m3, underground retention pond with 32,700 m3 capacity)

2) Phase 2 (Mid-term plan) River improvement of downstream stretch of Klang River for 55.2km. Flood protection level after completion of these works will become about a 30-year return period for mid-stream stretch and 100-year for downstream stretch.

3) Phase 3(Long term plan) River improvement works for Klang, Batu and Gombak rivers for total length of 60.1km. Flood protection level will become 100-year return period for whole stretch of the Project area.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Conditions:
1) The land use pattern projected of the year 2005.
2) Benefits will accrue in the 5th year and on.
3) Opportunity cost of 13%.
4) Project life of 50 years.
5) IRR of 19.5%; B/C ratio of 1.66; NPV of US$75.6 million

Social impacts:
Approximately 100 sq.km will be protected from 100-year probable floods and the available land will be used for productive activities. The retention pond will be used for multi-purpose such as recreational park.

5.TECHNICAL TRANSFER
1. OJT for the counterparts
2. Computer training of water part

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS
- ■ In Progress or In Use
- ☐ Delayed
- ☐ Discontinued

(Description)
A feasibility study was subsequently undertaken on urgent projects.

(FY1992 Overseas Survey)
The structural measures of flood mitigation proposed in the Master Plan were accepted by the DID's Dept. of Flood Mitigation and many were integrated in the 6th Malaysia Plan. Some of the non-structural measures have also been accepted.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 クラン川流域治水計画

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