ASE THA/S 308/82

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thailand 2.NAME OF STUDY Rama VI Bridge Construction Project	1.SITE OR AREA Northern area of Bangkok	1.PRESENT	
	2.PROJECT COST	○ Implementing ○ Processing □ Discontinued or Cancelled	
3.SECTOR Transportation/Road	3) 3.CONTENTS OF MAJOR PROJECT(S) 1) New Highway Bridge 1 Party 1 Part	(Description) Sep. 1983 OECF (10th) E/S loan agreement (170 million yen) Aug. 1986 D/D on New Rama IV Bridge completed Sep. 1987 OECF (13th) loan agreement on the new bridge (5,999 million yen)	
4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Public Works Dept.(PWD), Ministry of Interior	Main Bridge: total length 290m, width 29.1m (6 Lanes+pedestrian), 85m+120m+85m=290m long(3 spans) (Freyspainet cantilever exection method) Approach Bridge: width 23.3m (6 Lanes), total length 650m 2)New Railway Bridge width 12.5m total length 71.9m(dual track) (3 span continuous prestressed concrete girder) 3)New Roads width 9.4m ~ 5.7m, total length 3,900m 410ther structures	Dec. 1988 PO for construction completed Jun. 1989 Tender for construction closed Nov. 1989 Construction contract completed Jan. 1990 Notice to proceed received by the contractor Sep. 1992 Construction to be completed Up to now 70 percent of the work completed. Construction and construction supervision are in progress satisfactorily and smoothly.	
7.OBJECTIVES OF STUDY Alleviation of traffic congestion in Bangkok, with the bridge serving to complete the middle ring road	Riverfront, side ditch, drainage network, pump station, utilities, electricity, water and telecom (Total 5,700m), parking spaces, park, landscaping, pedestrian bridges, signal, etc.	(FY 1992 Overseas Survey) The project is included in the 5th and 6th National Social and Economic Development Plan. (FY1994 Domestic Survey) The maintenance period ended in Sep.1993 after the completion of this Project in Sep.1992. The consulting work for this Project has been completed.	
8.DATE OF S/W Mar . 1981	Imp. Period: Oct.1983-Mar.1986		
9.CONSULTANT(S) Chiyoda Engineering Consultants Co., Ltd. Japan Overseas Consultants Co., Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1) 20.30 FIRR1) Yes EIRR2) FIRR2) EIRR3) FIRR3)		
10.STUDY TEAM No.of Members 12 Period Jun.1981-Mar.1982(10 months)	Conditions and Development Impacts: Conditions: 1) Traffic volume projections for 1985, 1990 and 2000 2) Standard running speed of cars at 50km/hour 3) Traffic volumes of passengers and goods are projected on the basis of the 0/D survey. Development impacts: 1) Alleviation of traffic congestions in Bangkok and its adjacent areas 2) Industrial and residential development of the area along the Middle Ring Road because of an expansion of the traffic capacity of the road		
Total M/M Japan Field		2.MAJOR REASONS FOR PRESENT STATUS	
38.05 3.55 34.50 II.ASSOCIATED AND/OR SUBCONTRACTED STUDY Traffic survey, topographic survey and geological survey		1) Large impact: stimulation of the regional economy by the alleviation of congestion and the reduction of travel time 2) High priority: the completion of the Middle Ring Road ensures the balanced growth of the metropolitan area of Bangkok. 3) Administrative expertise: PWD has experiences in bridge construction (already constructed 5 bridges across Chao Phraya River	
12.EXPENDITURE	1) OJT	3.PRINCIPAL SOURCE OF INFORMATION ①. ②. ③. ④	

ASE THA/S 309/82

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY East Coast Water R Project	Thailand esources Development	I.SITE OR AREA East Coast Region (changwats Rayong and Chon Buri)	1.PRESENT STATUS Completed or in Progress ○ Completed ● Partially Completed ○ Implementing ○ Processing ○ Discontinued or Cancelled		
3.SECTOR Social Infrastructures Development 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC Royal Irrigation Depart 7.OBJECTIVES OF STUDY Water Resources Develop Pla Lai, Chon Buri Char	F/S Y ment ment covering Rayong, Nong	3) 3.CONTENTS OF MAJOR PROJECT(S) 1. Nong Pla Lai Sub-project a. Reservoir and dam: Catchement Area 426 sq.m, Gross reservoir storage 200,700,000 sq.m; Dam type-Earth fill type with cut-off trench, Crest elevation EL. 49.0 m, Max. dam height 31.0 m, Crest length 4.000m b. Water transmission system: Supply to Mab Ta Pud: Design discharge 3.63 cu.m/s, Total length 27.6 km Supply to Sattahip from Mab Ta Pud: Design dicharge 1.09 cu.m/s, Total length 21.9 km Supply to Laem Chabeng: Design discharge 1.01 cu.m/s, Total length 53.0 km c. Irrigation area 3.650 ha. Irrigation canal: Main length 46.2 km, Lateral length 20 km Drainage area: Insige the project area 21.3 sq.m, Outside the project area 14.9 sq.m; Drainage length 6.5 km 2. Ban Bung Sub-project Reservoir and dam: Catchement area 53 sq.m, Gross reservoir storage 21,300,000 cu.m; Dam type-Sarth fill type with cut-off trench, Crest elevation EL. 86.3 m, Max. dam height 21.5 m, Crest length 2,800 m	(FY 1991 Overseas Survey) The construction is undex implementation from 1989 to 1993 .		
8.DATE OF S/W 9.CONSULTANT(S) CTI Engineering Co., Ltd Sanyu Consultants Inc.		Imp. Period: Jan. 1983-Nov. 1986			
10.STUDY TEAM No.of Members 1 Period Feb. 1981-M		Conditions and Development Impacts: Conditions: The proposed industrial development project in the east coast region be progressed as originally scheduled. Development Impacts: 1. Direct impacts a Municipal and industrial water consumption; b. Production of paddy and groundnuts; and c. Flood control 2. Indirect impacts a. Promotion of industrial development (gas separation & petrochemical plant, soda ash plant, chemical fertilizer plant, sponge iron plant, industrial estate; deep sea port, etc.); b. Improvement of living standard and c. Land enhancement by flood control			
Total M/M 61.79 II.ASSOCIATED AND/OR SUBCONTRACTED STUD Geological survey		Notes: Above EIRRs and FIRR are for 1) Nong Pla Lai Sub-project and 2) Bar Bung Sub-project. The respective EIRRs of the sectors are: 1. Nong Pla Lai Sub-project: Industrial and municipal water-10.4%, Irrigation-12.1%, and Flood control-3.5%; 2. Ban Bung Sub-project: Industrial and municipal water-8.3%, and Flood control-2.9%. 5.TECHNICAL TRANSFER	2.MAJOR REASONS FOR PRESENT STATUS (1) High degree of priority: The industrialization of the gast coast region was the No.1 priority project of the Government of Thailand. (2) RID was directly commissioned by the Prime Minister to push forward the project.		
12.EXPENDITURE Total Contracted	165,176 (¥'000) 149,826	Acceptance of Trainees: for about three months, four trainees despatched from the Government of Thailand pursued the study and training mainly field survey of water supply systems. In the long view, it is considered profitable to the trainees.			

ASE THA/A 305/82

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY Thailand 2.NAME OF STUDY Phetchaburi-Kaeng Krachan Irrigated	1.SITE OR AREA Phetchaburi River Basin, area : 52,600 ha, population: 192,000	1.PRESENT ☐ Completed or in Progress ☐ Promoting STATUS ☐ Completed ☐ Partially Completed ☐ Delayed or Suspended
Agriculture Development Project	2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 233,865 163,396 70,469 US\$1=23B=230Yen 2)	○ Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR	3) 3.CONTENTS OF MAJOR PROJECT(S)	(Description) The proposed project has been suspended because of the change in that Government policy on farmland consolidation.
Agriculture/General 4.REFERENCE NO.	Development of irrigation agriculture centering on improvement of irrigation canal for Phetchaburi irrigated area of 45,000ha and new development of 7.100ha, and terminal facilities.	(FY 1991 Overseas Survey) No additional information.
5.TYPE OF STUDY F/S	The Project aims to increase agriculture production in the project area with improvement and for readjustment of irrigation and drainage system in	(PY 1993 Overseas Survey) Due to the changes in development policy of the Thai Government and
6.COUNTERPART AGENCY RID (Royal Irrigation Department), Ministry of	proper combination with existing facilities, those are Pechi Head Works	difficulty in financial arrangement, implementation of the project is suspended. There is no possibility of the project to be implemented
Agriculture and Cooperatives	Irrigation System Farm Land new canal : 120 km land consolidation : 52600 ha canal lining : 167 km	(FY1994 Domestic Survey) The project aims mainly at the development of on-farm facilities. Due to the policy by the Government that higher priority is to be given in water resources development, not to the on-farm development, implementation of the Project is not ready in near guture. Up to the
7.OBJECTIVES OF STUDY Feasibility study for irrigation and drainage system improvement and prmotion of land consolidation	cansl improvement : 128 km	implementation of the Project is not ready in near guture. Up to the year 1994, there has been no positive action taken for the Project implementation.
8.DATE OF S/W 0	Imp. Period: .19871998	4
9.CONSULTANT(S) Sanyu Consultants Inc.	4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1) 26.00 FIRR1) Yes EIRR2) FIRR2) EIRR3) FIRR3)	
	Conditions and Development Impacts: - The increase of paddy projection by 98,000t annualy - Introduction of improved seeds to 48,700ha paddy - Expansion of cultivation in dry season - Total agriculture production and I.R.R. are estimated as;	
No.of Members 11 Period Nov.1980-Mar.1982(17 months)	Total Project Cost : 22200 Million Yen (lus\$=230Yen) Increment of Production : 584 Million Bahts Total Production : paddy rice 240 mung bean 7 (x 10'3 ton) fluit 16 vegetable 48 Estimated IRR : 248	
Total M/M Japan Fi	ad Principal Control of the Control	2.MAJOR REASONS FOR PRESENT STATUS
50.73 18.36 32 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	37 (FY 1993 Domestic Survey)	The thai government intends that farmland consolidation and agriculture infrastructure improvement to be undertaken by private sectors instead of the government. Besides this case, projects of farmland consolidation and agriculture infrastructure improvement are executed by organizations of farmers financed by private banks.
12 BVOSNISWILDE	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
12.EXPENDITURE 201,291 (¥')	Training to engineers 00)	①. ②

ASE THA/A 306/82

I. OUTLINE	OF STUDY	II. SUI	MMARY OF S	STUDY R	ESULTS		III. PRE	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY	Thailand	1.SITE OR AREA					1.PRESENT	Completed or in Progress	☐ Promoting
2.NAME OF STUDY Mae Kuang Irrigated Development Project		2.PROJECT COST		and Lampoon 1	Local Cost	Foreign Cost	STATUS	CompletedPartially CompletedImplementing	☐ Delayed or Suspended
	· · · · · · · · · · · · · · · · · · ·	(US\$1,000)	1) 2)	204,400 223,600	126,600 138,700	77,800 84,900		O Processing	☐ Discontinued or Cancelled
3.SECTOR Agriculture/General		3.CONTENTS OF MAJO	3) OR PROJECT(S)	J	 		loans. Detailed Desi		
4.REFERENCE NO.		length	Crest elevation			Dam height Dam	Jul. 1982	OECF loan agreement signed if of which 190 million used f	or the project. D/D
5.TYPE OF STUDY 6.COUNTERPART AGENCY RID (Royal Irrigation D	and	(m) 1) Left saddle dam 650 2) Main dam	(m) 395.0 395.0	(MCM 2.26 5.58	-	(m) 52.0 77.0	First Stage (Sep. 1984	undertaken by Sanyu Consulta Construction: ORCF loan agreement signed Left saddle dam constructed direct management of RID an Consultants, Inc.	(2,300 million yen) . Construction was under
Agriculture and Coopera		645 3) Right saddle dam 655 2. Main irrigation 3. Lateral irrigat	ion canal: 146.6kg	1.44 m		41.0	Second Stage Oct. 1985	Construction: OECF loan agreement signed Main and Right saddle dam of undertaken by a Chinese con	constructed. Construction
7.OBJECTIVES OF STUDY	.	4. The capacity of 1) Optimum install 2) Annual energy: 5. New cropping pa Rice-Rice, Ric Tobacco, Rice-Garlic, R	f hydropower gener ed capacity: 3.7M 16.3GWH	ation W Soybean, Ric			Third Stage (Sep. 1987	OECP loan agreement signed Main and tributary canals i by an Italian company with Consultants.	have been under construction
		Longan				·	(FY1993 Overs Construction	eas Survey) work has completed.	
8.DATE OF S/W	Dec.1980	Imp. Period: Jan	1.1976-Sep.1988				(FY1994 Domes	tic Survey) oject components including th	ne Phase-1 (left dam). Phase
9.CONSULTANT(S) Sanyu Consultants Inc. Taiyo Consultants Co.,	Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS	Feasibility: Yes	EIRR1) EIRR2) EIRR3)	FI	RR1) RR2) RR3)	2 (Rightdam a completed in	nd main dam) and Phase-3 (ma	in canal) have been
		Conditions and Dev Conditions: 1. Economic cost: 2. Maintenance cos	elopment Impacts Baht 2,521.4 millst: Baht, 17.4 mill		rice) ter 1991)				
No.of Members 1	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2. The increase in families.	f agricultural pro n employment oppor	tunities for	٠.				
Period Feb.1981-F	eb.1982(13 months)	3. Flood control: 4. The increase in profit.	annual average fl n farmer's income:	lood damage x can reserve	educed by 3 about Baht	38% 13,700 as net			
Total M/M	Japan Field		4 1				2 MAJOR RE	ASONS FOR PRESENT STAT	us
57.09	21.57 35.32						1.5		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	<u>ix</u>								
		5.TECHNICAL TRA	NSFER	-			<u> </u>		
12.EXPENDITURE Total	193,441 (¥'000)	1.Acceptance of one 2.Several seminars	trainee held in RID durin	g the period	of the sur	rvey	Company of the Africa	SOURCE OF INFORMATION	
Contracted	165,175						①、②、④		

ASE THA/A 307/82

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY 2.NAME OF STUDY Upper Pasak Medium Project	Thailand Scale Irrigation	I.SITE OR AREA Upper Pasak river basin under PHETCHABUN Province (about 330km north from Bangkok) 2.PROJECT COST US\$1,000 US\$1,000 US\$1-23B 2)	I.PRESENT STATUS Completed or in Progress Completed Partially Completed Implementing Processing Delayed or Suspended Discontinued or Cancelled
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC Royal Irrigation Depart Agriculture and Coopera 7.OBJECTIVES OF STUDY Feasibility Study to identify the order to formulate an irrigation of the companion of the co	tment, Ministry of atives of priority atted agricultural and identify the	3) 3.CONTENTS OF MAJOR PROJECT(S) Sub-Project Huai Saduang Kaen Kaen Lab 1.Trrigation Area(ha) 5,400 5,100 1,800 1,200 2.Dam 1)Type Earthfil Earthfil Earthfil Earthfil 2)Height(m) 38 57 38 35.3 3)Crest Length(m) 467 950 816 1,259 3.Irrigation Canal(km) - 105.2 26.6 21.2 4.Drainage Canal - 72.3 36.7 20.0	(Description) The Royal Irrigation Development has been implementing the project with its own funds based on the results of the JICA Study. (FY1991 Overseas Survey) D/D Period : 1986-1992 Consultant's country : Thai Source of finance : Thai Construction Period : 1988-1996 Country of main contractors: Thai (FY1993 Overseas Survey) F/S review and D/D were conductied by government budget (180 million Bhats) in 1988 and dam construction in Fai Khon Ken and Khulong Charian Rab project sites was initiated by government budget. In Fai Khon Ken, the construction was initiated in 1990 and is to be completed in 1995 and total project cost is 500 million Bhats. In Khulong Charian Rab, the construction was initiated in 1993 and to be completed in 1996 and the total project cost is 146 million Bhats. (FY1994 Domestic Survey)
8.DATE OF S/W 9.CONSULTANT(S)	Apr. 1981	Imp. Period: 4.FEASIBILITY AND Reasibility: EIRR1) 13.90 FIRR1)	The D/D and Construction Works which have been proposed has been implementing by the Gov't of Thailand on the basis of the Development Study conducted by JICA.
Nippon Koei Co., Ltd. Chuo Kaihatsu Internat. 10.STUDY TEAM No.of Members 3	ional Corp. 14 Mar.1983(20 months)	TTS ASSUMPTIONS Yes EIRR2) EIRR3) FIRR3) Conditions and Development Impacts: Condition: Agricultural benefit is estimated as a difference of both benefits accrued under with and without conditions. In addition, irrigation water supply to lower basin and drinking water supply to the Lom Sak municipality are assessed as a direct benefit from the project. Development Impacts: 1) Increase of agricultural production 2) Rasin of the living standard of the regional inhabitants 3) Supplemental water supply to urban area	d d
Total M/M 72.48 11.ASSOCIATED AND/OR SUBCONTRACTED STUI 12.EXPENDITURE Total Contracted		5.TECHNICAL TRANSFER To undertake on the job training of the government's officials in the	2.MAJOR REASONS FOR PRESENT STATUS 3.PRINCIPAL SOURCE OF INFORMATION ①、②、③

ASE THA/S 403/82

	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY	Thailand	I.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY Rama VI Bridge Reh	abilitation Project	The Rama VI bridge and neighboring areas, northern Bangkok	STATUS ○ Completed ○ Delayed or Suspended
		2.PROJECT COST	○ Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR		3)	(Description) Short-term plan
Transportation/Railway		3.CONTENTS OF MAJOR PROJECT(S)	* Completed with domestic funds the purpose of the project was tentatively attained.
4.REFERENCE NO:		 Survey to confirm present status riverbed scouring; Geological survey; Vibration survey Analysis of causes of deformation 	* Repair work on bridge piers and shoe resetting were implemented and the restriction on train speed lifted.
5.TYPE OF STUDY	D/D	[3] Study on repair policies; (4) Basic design (5) Study on construction methods	Long-term plan
6.COUNTERPART AGENC	Y	(6) Approximate calculation of costs (7) Detailed design	 Double-tracking has not yet started due to its relation with a new road bridge.
State Railway of Thaila	and	 (8) Preparation of calculation sheets for work execution (9) Cost estimation (10) Preparation of specifications cost 1) above is for bridge piers and cost 2) for shoe resetting * Implementation periods below are 1) for 10 months and 2) for 3 months. 	However, it seems that the State Railway of Thailand has started to make budgetary arrangements to repair the Rama VI Bridge and double-track it, in order to implement the double-tracking after construction of the New Rama Bridge that is now under way.
7.OBJECTIVES OF STUDY			(FY1993 Overseas Survey)
D/D and cost estimation bidding documents on th			Double - Tracking is scheduled to start soon after the approval of budget. It will cost 44 million baht. Construction period will be from Feb.94 to Aug.95.
Rama VI bilage, which wa	is in danger or corrapse		(FY1994 Domestic Survey) The construction works of RAMA VI bridge for track doubling has been started in May 1994 and scheduled to complete in September 1995
8.DATE OF S/W	Mar.1981	Imp Daid	with the amount of Bath 43,750,000. The work is progressed by 51% as of October 1994.
9.CONSULTANT(S)	1101.1301	Imp. Period: 4.FEASIBILITY AND Feasibility EIRRI) FIRRI)	The approach at Bangkok side was designed to use composite bridges similar to the existing track which is in parallel. The work progress is about 61% as of October 1994 and expect to be completed by June
Japan Railway Technical	Service	4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) TS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR2) FIRR2) EIRR3)	1995 with the total cost of Bath 45,207,500. The approach at Thomburi side (the other side) is now under designed.
		Conditions and Development Impacts:	
		In the short term, the current restrictions on large rolling stock and train speed are to be continued.	
10.STUDY TEAM	· · · · · · · · · · · · · · · · · · ·	In the long term, such measures as the repairing of bridge piers and shoe resetting are to be implemented.	
No of Members 1	· .		
Period Jan.1982-D	ec.1982(11 months)		
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS
46.54	35.50 11.04		
11 ASSOCIATED AND/OR			
SUBCONTRACTED STUD	ш		
-Vibration survey -Excavation survey on)	bridge piers	5.TECHNICAL TRANSFER	
12.EXPENDITURE		1)OJT and JICA training program for counterparts 2)Employment of local consultants	3.PRINCIPAL SOURCE OF INFORMATION
Total	87,560 (¥'000) 81,093	2) Despityment of local consultants	0. ②
Contracted	01,093		

ASE THA/S 404/82

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY	Thailand	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY]	Eastern Coastal Zone of Thailand between Dok Krai and Mab Ta Pud	STATUS Completed
Dok Krai - Mad Ta Project in the Eas	Pud Water Pipe Line	2 PROJECT COST Total Cost Local Cost Foreign Cost	O Partially Completed Delayed or Suspended
La check in the Eds	c coust nied	39 214 13 026 26 188	☐ Implementing ☐ Processing ☐ Discontinued or Cancelled
		(US\$1,000) (US\$1=230Yen=23B) 2)	C) Troopsing
3.SECTOR		3)	(Description) Date of completion of detail design : Sep.1982
Social Infrastructures, Development	/Water Resource ,	3.CONTENTS OF MAJOR PROJECT(S) Nong Pla Lai Dam: 200MCM	Date of conclusion of L/A of the requested loan granted by the Japanese Government (320 million yen): Jul. 1982
4.REFERENCE NO.	·	Nong Fla Lai Dam: 200mcm Pipeline: 27.6 km Irriyation Water Drainage System: 3,650 ha	Date of completion : Jun. 1984 Date of commencement of service : Sep. 1983
5.TYPE OF STUDY	D/D	Alana III	(FY 1991 Overseas Survey)
6.COUNTERPART AGENC	Υ		No additional information.
Royal Irrigation Department(RID)			
popaz ement (RID)	İ		
7.OBJECTIVES OF STUDY			
Executive design for co	onstruction of pipeline		
between Dok Krai resert	voir and Mab Ta Pud		
	<u></u>		
8.DATE OF S/W	Oct.1980	Imp. Period: Mar.1983~Aug.1984].
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRR1) 11.20 FIRR1)	
CTI Engineering Co., Lt	td.	ITS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)	
Sanyu Consultants Inc. Nihon Suido Consultants	s Co., Ltd.	Conditions and Development Impacts:	1
		After deducting tax, insurance subsidy and indemnity from the construction cost reckoned on the preliminary design as the basis.	
		Regional development of the eastern coastal zone is anticipated by the	
10.STUDY TEAM		supply of municipal, industrial and irrigation water.	
Period Nov.1981-A	aug.1982(10 months)		
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS
87.00	39.00 48.00		(1) High degree of priority: The industrialization of the east coast region was the No.1 priority project of the
11.ASSOCIATED AND/OR	the state of the s		Government of Thailand (2) RID was directly commissioned by the Prime Minister to
SUBCONTRACTED STUD			pushing forward of the project.
		5.TECHNICAL TRANSFER	
12 EXPENDITURE		OJT and JICA training program for counterparts	3.PRINCIPAL SOURCE OF INFORMATION
Total	223,594 (¥'000)		①②①
Contracted	206,221	#임스피스는 관광의 화약 시작성 kuku Sak 기억 등 kuku 전 10 등 전 15	

PROJECT SUMMARY (Basic Study)

ASE THA/S 501/82

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS	
I.COUNTRY 2.NAME OF STUDY Water Supply Projections: I	Thailand ct to Laotian	1.SITE OR AREA Two camps for Laotian refugees in the northeastern part of Thailand	LPRESENT STATUS	■ In Progress or In Use □ Delayed □ Discontinued
and Pak Chom Camp	Nakilon Francis Camp	2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 2)	(Description) After the constructed by	ompletion of the study, the proposed tube wells were the Japanese grant aid.
Social Infrastructures, Development	/Water Resource	3.CONTENTS OF MAJOR PROJECT(S)		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Interior	Basic Study	lst phase study: Underground water survey at Nakhon Phanom Camp (test boring at 4 sites and identification of 2 sites for tube wells) 2nd phase study: Underground water survey at Pak Chom Camp (test boring at 4 sites and identification of 2 sites (or tube wells)		
7.OBJECTIVES OF STUDY Curvey of underground s	∴			
8.DATE OF S/W 9.CONSULTANT(S) Japan Engineering Consu	oltants Co., Add.	4.CONDITIONS AND DEVELOPMENT IMPACTS The project will supply potable water for Lactian refugees [29,000 persons at Nakhon Phanom and 50,000 persons at Pak		
10.STUDY TEAM		Chrim)		
No.of Members 8	jov.1982(10 months)			
Total M/M	Japan Field		2.MAJOR REA	SONS FOR PRESENT STATUS
36.66 HASSOCIATED AND/OR SUBCONTRACTED STUE				
12.EXPENDITURE Total Contracted	100,465 (¥700) 98,916	5.TECHNICAL.TRANSFER	3.PRINCIPAL S	SOURCE OF INFORMATION

ASE THA/S 102/83

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY 2.NAME OF STUDY Road Development Region	Thailand in the Northeastern	1.SITE OR AREA 16. changwats of the Northeastern Region (169,000 sq.km) 2.PROJECT COST	1.PRESENT STATUS	■ In Progress or In Use □ Delayed □ Discontinued	
		Total Cost Local Cost Foreign Cost (US\$1,000) 1) 55,200 55,200 (US\$1=23B) 2)	subsequently und	recommendations of the study, a feasibility study was lertaken on 15 routes for new construction and 2.1km) and 8 routes for rehabilitation (90km).	
3.SECTOR Transportation/Road	J	3.CONTENTS OF MAJOR PROJECT(S)	{FY1993 Oversea	s Survey)	
		The study proposed the following priority projects.	See the page (FY1994 Domesti	on its feasibility study.	
4.REFERENCE NO. 5.TYPE OF STUDY	M/P	- New construction and improvement 18 routes (666.9km) - Rehabilitation 25 routes (468.0km)	No additional	information.	
6.COUNTERPART AGENO Dept. of Highways, Min	CY nistry of Communications				
7.OBJECTIVES OF STUD Formulation of a mast in the Northeastern R	er plan for road development				
8.DATE OF S/W	Nov.1981	4.CONDITIONS AND DEVELOPMENT IMPACTS	1	ı	
9.CONSULTANT(S) Nippon Koei Co., Ltd. Katahira & Engineers	International	Development impacts: 1) Narrowing of regional disparities 2) Stimulation of agricultural production 3) Development in poorer areas			
10.STUDY TEAM		Social impacts: 1) Alleviation of social and political isolation 2) Improvement of health services 3) Improvement of education 4) Reduction of income disparities			
1	11 -Mar.1983(12 months)				
Total M/M	Japan Field		2.MAJOR REA	SONS FOR PRESENT STATUS	
79.20 II.ASSOCIATED AND/O SUBCONTRACTED STU	1				
		5.TECHNICAL TRANSFER	3.PRINCIPAL S	OURCE OF INFORMATION	
12.EXPENDITURE Total Contracted	224,974 (¥'000) d 216,437		0. 2		

ASE THA/S 204B/83

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY	Thailand	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY Development Project		Coastal Area, Layon Province	STATUS Completed Partially Completed Delayed or Suspended
Port on the Eastern	n Seaboard	2.PROJECT COST M/P 1) 888,220 Local 570,800 Foreign 56,560 Cost C	○ Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR		2) 3)	(Description) The project is under implementation with the OECF financing.
Transportation/Port		3.CONTENTS OF MAJOR PROJECT(S)	Sep.1983 OECF E/S loan (1,720 million yen)
4.REFERENCE NO.		<m p="">Development of Layon Province, Composed of Industrial Base, Port, Residential Area. The target year of the M/P is 2000.</m>	Sep.1984 OECF loan on Map Ta Phut Industrial Port (5,610 million yen)
5.TYPE OF STUDY	M/P+F/S	la)Industrial Development: Gas separation plant, Soda ash plant, Petro chemical complex, Fertilizer complex, Iron & steel complex,	Oct.1985 OECF loan on Map Ta Phut Industrial Port (16,050 million yen) and Industrial Estate (3,207 million
6.COUNTERPART AGENCY	/	Supporting industries, Down stream industries, Other industries. 2) Port development: Amount of cargo handled 23 million tons annually.	yen) Oct.1935 D/D on Map Ta Phut Port completed
Industrial Estate Autho Authority of Thailand	rity of Thailand, Port	45 berths, total length 5,750m. 3]Orban Plan: New town 575ha, Population 71,500 Number of household 17,340 4)Infrastructure: Road, Water supply, Sewerage, Waste treatment,	Jan. 1986 D/D on Industrial Estate completed Dec. 1987 Construction of the Industrial Estate commenced Nov. 1988 OECF Joan on Satahip-Hap Ta Phut Railway (3,002 million yen)
7.OBJECTIVES OF STUDY		Railway(branch of the Chachoengsao - Sattaship line, length 25km, annual traffic volume transported 3.7 million tons)	(FY1991 Overseas Survey) 1989 Construction of the Port commenced (-1992)
	Plan for Maptaput Port as feasibility study of	Electricity(total demand 1,354MW) Telephone(number of lines 10,000) Telex/Telegram, terminals and other services 44 <f s="">1]Industrial Development: petorochemical, fertilizer, soda ash, various supporting industries, industrial estate Area 410ha, Quay wall 820m. 2)Port Development: Quay-wall 850m, wharf 280m, breakwater 3,000m total length of berths 1,750mamount of cargo handled 4 million tons annually 3)Urban Development: Area 131ha, population 18,300 Number of</f>	1990 Construction of the Industrial Estate First Stage completed 1991 Construction of the Industrial Estate Second Stage commenced Scheduled to be completed in 1992 [FY1994 Domestic Survey] No additional information.
8.DATE OF S/W	May.1982	Household 4,360 4) Infrastructure: Road, Water Supply, Sewerage, Waste treatment,	
9.CONSULTANT(S) Overseas Coastal Area D	lavelerment Institute	Railway(Extension 24km, annual traffic volume transported 2 million tons), Electricity(total demand 133.5MW), Telephone(number of lines 13,000) Telex/Telegram terminals and other services(23)	
Kokusai Kougyo Co., Ltd		Imp. Period: Jan.1984-Dec.1987	
		4.FEASIBILITY AND ITS ASSUMPTIONS Yes FIRR1) Feasibility: EIRR1) FIRR1 FIRR2 FIRR2) FIRR3) FIRR3)	
10.STUDY TEAM		Conditions and Development Impacts:	
No.of Members 9	•	<m p=""><impacts>1)Promotion of the Heavy industry at Eastern Seaboard Development: 2)Establishment of industries utilizing natural gas</impacts></m>	
Period Jul.1982-No	ov.1983(17 months)	resources. 3) Acceleration of the region's urban-industrial development. 4) Increase in the economic growth of the nation and employment. 4F/S>Conditions for Cargo Forecast: 1986 GDP=4,350 A Bahts 2000	
Total M/M	Japan Field	2000 GDP=11,200 A Bahts <conditions development="" industrial="" of=""></conditions>	2.MAJOR REASONS FOR PRESENT STATUS
65.31	36.60 28.71	GNP Growth (1981 - 1986) 6.68(per annum) Manufacturing sector growth 7.68 Export oriented Industry 15.08	(1) To formulate the core of development
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	y .	<conditions> The value added which will be generated by the productive activity of the planned factories will be counted as the total benefit of this project. The benefits are caluculated as the difference between the With-project and the Without-project conditions.</conditions>	(2) High priority in Thailand National Plan
		<pre><impacts>1)Acceleration of regional development(esp. Map Ta Phut area). 2)Development of coastal shipping and port-related industries.</impacts></pre>	
12.EXPENDITURE		5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
Total	412,019 (¥'000)	Giving lecture on methods for Planning Ports and Industrial Estates	⊕, ②, ⊕
Contracted	411,680		

ASE THA/S 311/83

I. OUTLIN	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY 2.NAME OF STUDY Nong Kho - Leam Cl Project	Thailand	1.SITE OR AREA	on Taplementary
	F/S ristry of Interior r the pipeline system from the Laem Chabang and to	(US\$1,000) (US\$1=230Yen=23B) 2) 3) 3.CONTENTS OF MAJOR PROJECT(S) Pirst Stage Nong Kho- Turnout- Turnout Receiving Well 1.Raw Water Pipeline Diameter of pipe 1,000mm 900mm 1,000mm 9000mm	(Description) 1984 Sep. OECF E/S loan agreement (144 million year) 1985-1986 Detail design 1985 Oct. OECF loan agreement (1,363 million year) 1987 May Construction commenced
8.DATE OF S/W 9.CONSULTANT(S) Nippon Koei Co., Ltd. Nikken Consultants., 1	Jul.1983	Imp. Period: .1987~.1988 4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1) 11.60 FIRR1) 9 EIRR2) FIRR2) EIRR3) FIRR3) Conditions and Development Impacts: [conditions]	.60
	7 Mar.1984(7 months)	The demand for water was projected for 1995 and 2001. The existing reservoir will not be able to satisfy the projected demand, and water me be conveyed by the pipeline from outside the area. The project life is set at 40 years. Development Impacts: The industrial and urban development in the area, increase of job opportunities, upgrading of living standard, improvement of trade balance mitigation of congestion in Bangkok.	
Total M/M 31.00 H.ASSOCIATED AND/OI SUBCONTRACTED STU			2.MAJOR REASONS FOR PRESENT STATUS 1) Large impact: the industrial development at the Laem Chabany area is dependent on this project. 2) Close linkage with other projects: development in Laem Chabany and the source of water 3) High priority 4) Strength of the executing agency: strong support by NESDB
12.EXPENDITURE Total Contracted	75,218 (¥'000) 78,467	5.TECHNICAL TRANSFER 1) On-the-job training during the study 2) Acceptance of counterparts for the training in Japan	3. PRINCIPAL SOURCE OF INFORMATION ①、②、④

ASE THA/S 312/83

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY Second Stage Expres Greater Bangkok	Thailand ssway System in the	I.SITE OR AREA Greater Bangkok 2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 2)	LPRESENT Completed or in Progress Promoting		
3.SECTOR Transportation/Road 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Expressway and Rapid Tr 7.OBJECTIVES OF STUDY Road planning		3) 3.CONTENTS OF MAJOR PROJECT(S) -Toll highway: 27.9 km -North-South Route running from Chaeng Nattana to an interchange at Bang Khlo: 19.2 km -West-East Route running from an interchange at Phaya Thai to Sri Nakaim Road: 8.7 km -Toll elevated expressway (Total length: 31.8km) The project cost is 26,200 million bahts.	(Description) D/D of the Second Expressway was undertaken by a consortium of 5 consulting firms. In September 1988, ETA decided to implement the project with the private sector investment and the contract was granted to the Sangkok Expressway Consortium in December of the same year. ETA allowed one year for the acquisition of right of way. (FY1991 Overseas Survey) Construction will be completed in 1955. There was route adjustment for more suitable traffic catchment making the total length of the expressway 39km. Comparison between the development study plan and the ongoing project: Study plan Comparison between the development study plan and the ongoing project: Length: 27.9 km Cost 26,200 million bahts 1986-1995 Finance: government budget and domestic and foreign loam To the ETA 1989-19999 private sector investment (transfer to the ETA)		
8.DATE OF S/W	Mar.1982	Imp. Period: 1987~.1995	(FY1993 Overseas Survey) ETA will acquire project site by 1996. Land acquisition cost will be 26,800 million baht.		
9.CONSULTANT(S) Pacific Consultants Int	ernational	4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1 17.00 FIRR1 12.0 EIRR2 FIRR2 EIRR3 FIRR3 Conditions and Development Impacts: Condition: Puture traffic volume was forecasted for the targetted year 1990, 2000, 2010 on the basis of O-D survey made by home interviews.	(PY1994 Domestic Survey) No additional information.		
10.STUDY TEAM No.of Members 10 Period May 1982-No	6 ov.1983(18 months)	Development Impact: Traffic congestion in the city is expected to be alleviated.			
Total M/M 60.17	Japan Field 8.66 51.51		2.MAJOR REASONS FOR PRESENT STATUS (1) Effectiveness: Speeding up of vehicles		
II.ASSOCIATED AND/OR SUBCONTRACTED STUD Topographic survey Geol survey	Y	5.TECHNICAL TRANSFER	(2) Priority: Traffic volume of the First Stage exceeded the anticipated figure; therefore, toll revenue will increase and priority of Second Stage is high. (3) Strong support to promote this project		
12.EXPENDITURE Total Contracted	260, 230 (¥'000) 250, 242	(1) Overseas training for 2 counterpart staff (2) Employment of local consultants for topographic and geological survey	3.PRINCIPAL SOURCE OF INFORMATION ①、②、③		

ASE THA/S 310/83

I. OUTLINI	E OF STUDY	II, SUMMARY OF STUDY RESULTS				III. PRESENT STATUS OF STUDIED PROJECT		
1,COUNTRY	Thailand	1.SITE OR AREA				1.PRESENT	Completed or in Progress	☐ Promoting
2.NAME OF STUDY	esources Development	Eastern seaboard (Rayong and Ch	onburí changwats)		<i>2</i>	STATUS	CompletedPartially Completed	☐ Delayed or Suspended
(Phase II)	·	2.PROJECT COST (US\$1,000) 1)	Total Cost 198, 260	Local Cost	Foreign Cost 82,608		ImplementingProcessing	☐ Discontinued or Cancelled
		(US\$1=23Bahts) 2)	329,565 69,130		134,782 17,391	(Description)	O 110000018	
3.SECTOR		3.CONTENTS OF MAJOR PROJECT(S)	05,250		27,332		een Nong Pla Lai Reservoir a	nd Nong Kho Reservoir
Social Infrastructures Development	/Water Resource	1) Khlong Luang:				Feb.1990 0E	CF L/A (E/S) 204 million yen Major Component: Engineering S	Service
4.REFERENCE NO.		(a)Multi-purpose dam (h.42.5.m Chomburi; (c) irrigation and dra:); (b)canal conne inage (6,600ha)	ecting the d	am and	Jan.1993 OF	MCP L/A 6,362 million yen Major Compenent: Canal constru	
5.TYPE OF STUDY	F/S	 Khlong Yai: (a)Multi-purpose dam (h.50.8m) Lai Dam and Nong Kho Dam; (c) 	; (b) canal conne	cting Nong F Trainage	Pla	2) Khong Luan	g and Khlong Thep Ma:	
6.COUNTERPART AGENC		(7,700ha) 3) Khlong Thap Ma:	·			Suspended	after the completion of the	F/S.
Royal Irrigation and D	rainage Dept.	(a)Multi-purpose dam (h. 28.9	m); (b)irrigation	and drainag	je	(PY1991 Overs Project sca	eas Survey) ale was reduced.	
7.OBJECTIVES OF STUDY			*			(FY1994 Domes	tic Survey) nal information.	
Feasibility analysis of								
							•	
					. •	j ·		!
8.DATE OF S/W	Feb.1982	Imp. Period: .19841996						•
9.CONSULTANT(S) Nippon Koei Co., Ltd.		4.FEASIBILITY AND Feasibility: Trs ASSUMPTIONS Yes	EIRR1) EIRR2) EIRR3)	16.10 FIRE 15.00 FIRE 12.10 FIRE	R2)			
Nikken Consultants., I	nc,	Conditions and Development Imp		12.10 PIKI	K3)	-		· ·
		Benefits of the projects are	estimated as fol (Unit: mill				· · · ·	
10.STUDY TEAM	T	1) 423.3 180.7	Flood Control 49.8 57.2	Total 653.8 1.049.0				
No.of Members 1	12	2) 793.6 198.2 3) 81.7	19.5	101.0				
Period Jul.1982-	Mar.1983(9 months)							
Total M/M	Japan Field		•			2,MAJOR RE	ASONS FOR PRESENT STAT	us
						(FY 1991 Ove	is planned to follow Nong Plan	a Lai Dam, whereas Khlong
11.ASSOCIATED AND/OR SUBCONTRACTED STU	and the second s					Luang and Kh	long Thap Ma have resettleme	nt problems.
		5.TECHNICAL TRANSFER				2 DDINICIDAL	SOURCE OF INFORMATION	<u>. </u>
12.EXPENDITURE Total	184,263 (¥'000)							
Contracted	173,923					①、②、④		

and the productive of the contractive of the contra

Compiled Mar. 1990 ASE THA/A 308/83 Revised Mar. 1995 I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUDIED PROJECT LCOUNTRY Thailand LSITE OR AREA LPRESENT. ☐ Completed or in Progress ☐ Promoting 2.NAME OF STUDY STATUS O Completed Northern part of Thailand, Mae Chang River Basin Mae Chang Irrigation Project O Partially Completed Delayed or Suspended 2.PROJECT COST Total Cost Local Cost Foreign Cost O Implementing 44,000 22,000 22,000 1) ☐ Discontinued or Cancelled (US\$1,000) O Processing 2) (Description) 3) 3.SECTOR The project has been suspended because of the change in 3.CONTENTS OF MAJOR PROJECT(S) Agriculture/General agricultural policy of the Thai Government. Beneficial Area : 8,095ha (Right bank area, 6,006ha, Left bank area (FY 1991 Overseas Survey) 2.089ha) 4.REFERENCE NO. No additional information. ajor Facilities: Storage dam 1 site (total storage capacity 40MCM, Enbankment rolume 680,000m3, Zone type earthfill) (FY 1993 Overseas Survey)
Due to the changes in development policy of the government of
Thailand, the priority of the project is ranked low and there is no
possibility of the project to be implemented. Previously, Land
consolidation was one of the most important target in the development
policy of agriculture secotr, however high priority has been given to
small ixxigation development since 5th 5 year National development 5.TYPE OF STUDY F/S Diversion dam 1 site (total storage capacity 7 MCM, Dam volume 6.COUNTERPART AGENCY 72,000m3 Combination type) Main canal 51.3 km (concrete lined canal) RID (Royal Irrigation Department), Ministry of Tribeetary canal 93.3 km (partly, no-lining canal) Agriculture and Cooperatives Others : Drainage canal 7.0 km, Onfarm facilities Small-scale hydro-power generation(164kw) 7.OBJECTIVES OF STUDY (PY1994 Domestic Survey) The EGAT constructed a reservoir dam for fire power generation after 1985 at the upper stream basin of the proposed dam site offthis study. Therefore, there are no water resources eveilable for the Feasibility study of the irrigation plan in Mae Chang area through the construction of a water project. No further planning has been made so far. 8.DATE OF S/W Nov.1982 Imp. Period: Apr.1984-Apr.1992 4.FEASIBILITY AND EIRR1) FIRR() 9.CONSULTANT(S) Feasibility: EIRR2) FIRR2) ITS ASSUMPTIONS Sanyu Consultants Inc. Yes/No EIRR3) FIRR3) Taiyo Consultants Co., Ltd. Conditions and Development Impacts: [Conditions] Total project cost 44.25 million \$ (as of 1983) : 1,300ha : Household 125, Farmland 224ha Reservoir are Resettlement 10.STUDY TEAM Annual cropping rate : 130% Development Impacts No.of Members Increasing the agricultural productivity and the suplus incomes (2,784 B/Y --> 7,501 B/Y) Period Jan. 1983-Jan. 1984 (13 months) Increasing the employment opportunities
Improving the life conditions and living standard Total M/M Field Japan 2.MAJOR REASONS FOR PRESENT STATUS 34.81 69.11 34.30 Problem of relocating 25 families in the area which will be submerged in water in the River Basin. 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY (FY 1993 Domestic Survey) 5.TECHNICAL TRANSFER 12.EXPENDITURE 3.PRINCIPAL SOURCE OF INFORMATION To Thai counterparts assigned through the survey 186, 107 (¥'000) Total 141,808 Contracted

和名メチャンかんがい農業開発計画

ASE THA/S 103/84

I. OUTLIN	E OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRE	SENT STATUS OF STUDY RESULTS
1.COUNTRY	Thailand		LSITE OR AREA	LPRESENT	■ In Progress or In Use
2.NAME OF STUDY Sub-Regional Devel	lopment of the U	ipper	Upper part of the Southern Region (pop.1.1 million)	STATUS	☐ Delayed ☐ Discontinued
Southern Part		. [2.PROJECT COST Total Cost Local Cost Foreign Cost	(Description)	<u> </u>
			(US\$1,000) 1)	1) After the c	ompletion of the study, ADB reviewed 10 high priority ndorsed their validity.
3.SECTOR			(US\$1=23Bahts) 2)	2) The Southern	n Seaboard Development Committee (chaired by the Prime
Development Plan	grated Regional		3.CONTENTS OF MAJOR PROJECT(S) The study proposed 10 high priority projects at the total cost of 24,272	Committee, a st implemented, in	tudy on the development of Southern Thailand is being icluding the East-West Link, the Krabi Oil Refinery and
4.REFERÊNCÊ NO.			million baht. 1) Surat Thani Industrial Estate	riperine, and	the Khanom Deep-sea Port, with World Bank finance.
5.TYPE OF STUDY 6.COUNTERPART AGENC	M/P		2) Phuket Airport Industrial Estate and Export Processing Zone 3) East-West Link 4) Surat Thani International Port (Khanom Deep-sea Port)	implemented a (1988).	master plan study on tourism in Southern Thailand
National Economic and (NESDB)		Board	5) Krabi Oil Refinery and Pipeline 6) Phuket Urban Development 7) Surat Thani Urban Development 8) Central Lowland Development	Ministry of Co	echnical assistance, the Dept, of Highways of the mmunications is implementing a master plan study on th the East-West Link) in Southern Thailand,
7.OBJECTIVES OF STUD			9) Tapi-Phum Duang River Management 10) Phuket Water Supply Note: The cost shown above pertains to the ten high priority projects.	Inreparations fo	city Generating Authority of Thailand is making or a study on the Kaen Krung Dam proposed ad part of Duang River Management, but the problem of relocation d.
through 2000				6) Unilever and Central Lowlan	d other private enterprises have been active in the d Development.
				Bridge Program	East-west Link is accommodated into the present Land
8.DATE OF S/W	Nov.1982		COMPANIO AND DEVISION APPENIANT ON	~1	Road is under D/D.
9.CONSULTANT(S)			4.CONDITIONS AND DEVELOPMENT IMPACTS	(FY1994 Domest 1. The D/D has	ic Survey) s been completed for an East-West Link;Krabi-Khanom ticular. Actual construction will start soon.
International Developm Pacific Consultants In			Development impacts: 1) Lessening of the concentration of economic activities in Greater Bangkok and more decentralized economic growth	2. A proposed	circular. Actual construction will stall soon oil refinery will be set up at Khanom in stead of is the location originally proposed by this study. A sed at the same time is expected to transport crude oi
			 Agricultural development (agricultural land development of unutilized or underutilized land and an increase of agricultural exports) 	instead of pet	revolute products. has been designeted as one of the regional cities for e investment have been made to reinforce urban
			3) Industrial development (Sophistication of processing industries)	infrastructure	
10.STUDY TEAM			4) Tourism development (beach resorts, etc.		
No.of Members	26		5) Energy development (hydro-power, thermal power (coal), refining of Middle East petroleum)		
Period Mar.1983-	Mar.1985(24 mon	ths)	6) Development of two urban cores (Surat Thani and Phuket)		
Total M/M	lanan	Field		2.MAJOR REA	ASONS FOR PRESENT STATUS
157.10	Japan 20.70	136.40		(PY 1991 Overs	was integrated in the Sixth National Plan (Chapter
II.ASSOCIATED AND/OI SUBCONTRACTED STU				5: "Preparaton	for Development of Other New Economic Areas").
			5.TECHNICAL TRANSFER	3 PRINCIPAL	SOURCE OF INFORMATION
12.EXPENDITURE Total	431.8	27 (¥'000)	1) Participation of counterparts in the JICA training program (2 Staff)	1), 2), 3	BOOKED OF THE ORBITATION
Contracted			2) OUT for the counterparts through joint work		

ASE THA/S 205B/84

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY 2.NAME OF STUDY	Thailand	1.SITE OR AREA Laem Chabany (120km southeast of Bangkok)	1.PRESENT Completed or in Progress ☐ Promoting STATUS Completed		
Development Project Coastal Area	t of Leam Chabang	2.PROJECT COST M/P 1) 1,051,000 Local Foreign Cost Cost (US\$1,000) (US\$1,23B) F/S 1) 397,000 214,000 183,000			
3.SECTOR Development Plan/Integ	rated Regional	2) 3)	(Description) The project is under implementation with the OECF loans.		
Development Plan	raced Regional	3.CONTENTS OF MAJOR PROJECT(S)	Oct.1985 OECF loan agreement on the industrial estate I (2,922 million yen)		
4.REFERENCE NO.		<m p=""> 1) Industrial Development 2) Port Development: 16 berths domestic wharf 1,100m, wharf area 258ha length of breakwater 3,070m</m>	Sep.1987 OECF loan agreement on the industrial estate II (3,003 million yen)		
5.TYPE OF STUDY	M/P+F/S	3) Urban Development: New town population 120,000, Area 930ha 4) Transportation Planning	Sep.1984 OECF loan agreement on the commercial port I (4.172 million ven)		
6.COUNTERPART AGENC Industrial Estate Author		5) Utility Development Water supply, sewerage system, drainage system, solid waste disposal, power supply system(2 substations) telecommunication system (number of telephones 13,764, number of telex terminals 64)	Nov.1986 OECF loan agreement on the commercial port II (12,283 million yen) Feb.1990 OECF loan agreement on the commercial port III (6,436 million yen)		
7.OBJECTIVES OF STUDY		land preparation plan (land fill 3 million cu.m) The project cost 1) above is for a short-term plan and 2) is for a long-term plan.	Sep.1988 OECF loan agreement on the railway (1,013 million yen)		
Formulation of a master plan (target year 2000) for the development of Laem Chabang Area and feasibility analysis of the short-term plan (target year 1987)		P/S-Major components of the short-term development plan: 1) Industrial Development: Industrial estate 219ha 2) Port Development: 6 berths, domestic wharf 280m, land area 116ha length of breakwater 2,400m 3) Urban Development: New town population 24,000, area 130ha 4) Transportation Development 5) Utility Development: Water supply, sewerage system, drainage system solid waste disposal, power generation(88.55m)	(FY1991 Overseas Survey) Construction Period: From year 1988 to year 1991 (FY1993 Overseas Survey) - First Stage of New Town (16ha residential tone, 2284 units) has been completeted. Present population is 11,420. Second stage (8ha) is under preparation.		
8.DATE OF S/W	Sep.1983	telephone lines(3,000), telex terminal(32) land preparation plan(land fill 2.6 million cu.m)	 Public Utilities to accommodate new housing development have been completed. 		
9.CONSULTANT(S)		Note: EIRR and FIRR1)bellow are for the industrial estate, and 2)FIRR for the housing estate.	(PY1994 Domestic Survey)		
Nippon Koei Co., Ltd.		Imp. Period: .19851989	No information		
		4-FEASIBILITY AND ITS ASSUMPTIONS Peasibility: EIRRI) 19.20 FIRRI) 8.40 FIRR2) 4.80 EIRR2) FIRR2) 4.80 FIRR3)			
10.STUDY TEAM		Conditions and Development Impacts:			
No.of Members Period Jan.1984-M	ar.1985(15 months)	<pre><m p=""><impacts>1} Creation of employment opportunities 2) Increase in foreign exchange earnings 3) Control of excessive growth in the Bangkok Metropolitan Area and Development of the regional economy </impacts></m></pre> <pre></pre>			
Total M/M	Japan Field	devilored (DTD) for the deviloring outside in onloyleded to be 2.09	2.MAJOR REASONS FOR PRESENT STATUS		
65.31	36.60 28.71	for the industrial estate and 11% for the housing estate).	Large impact: employment creation, increased foreign exchange, transfer of technology		
11.ASSOCIATED AND/OR SUBCONTRACTED STUL	1	3)Regional economic growth 4)Improvement of transportation system 5)Development of coastal shipping and port related industry. 6)Utilization of local resources; 7)Accumulation of production technologies, managerial technology and know-how.	2) High priority: one of the major projects to be implemented during the 5th development plan 3) close linkage with other projects 4) Strength of the executing Agency		
12.EXPENDITURE		5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION		
Total Contracted	255,314 (¥'000) 181,733		0. 2. 3. 6		

ASE THA/S 314/84

I. OUTLINE OF STUDY		II. SUMMA	RY OF STUDY R	ESULTS	III. PRE	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY	Thailand	1.SITE OR AREA Entire Bangkok Metropoli	tan Area		1,PRESENT STATUS	■ Completed or in Progress [○ Completed	Promoting	
Track Elevetion Pr Railway Lines in t Metropolitan Area	roject of Existing the Bangkok	2.PROJECT COST (US\$1,000) (US\$1=23B)	Total Cost 1) 158,000 2)	Local Cost Foreign Cos 100,000 48,00	10	● Implementing ○ Processing	Discontinued or Cancelled	
3.SECTOR Transportation/Railway 4.REFERENCE NO.		3.CONTENTS OF MAJOR PRO Civil work Land procurement Electric facilities	3) DJECT(S) US\$ 125 million US\$ 2000 million US\$ 30.9 million		decided to in invited the p no response.	Railway of Thailand and the Min mplement the track elevation by private sector application in D By offering better access to as announced again in October I	the BOT system. SRT becember 1988, but received the SRT-owned land, the 989. In November 1990.	
5.TYPE OF STUDY 6.COUNTERPART AGENC State Railway of Thail		Rolling stock Track elevation will be m -Bangkok Station - Bang SK -Yoma Pot, Chit-La-Da Jur -Makkasan Station - Mae Na	US\$ 68.6 million ainly carried out in t me Station action - Makkasan Station	}	with MOPEWELL In Decembe project, ther elevation tog phase along	ne contract of 80 billion bahts, of Hong Kong. T 1991, the HOPEWELL Company derefore, it can be expected that sether with community train and the Yommaraj-Donmaung section feather of the yommaraj-Donmaung section feather f	cides to carry on this the construction of track freeway for the first	
	ency and ensuring the safety delimination of traffic				and east-west construction (FY1993 Over The constr cost 80 bill	t scale was enlarged to 60.1 kg. lines with a budget of 60 bil will be from 1993 to 1996. seas Survey) uction by HOPEWELL is from 1991 ion baht.	lion bahts. The	
8.DATE OF S/W 9.CONSULTANT(S) Japan Railway Technica	Jun.1983		ibility: EIRRI) FIRR2) FIRR3)	FIRRI) FIRR2) FIRR3)	from Yammarai pile works a a half years	uction works of normals Project t toward north and east have b re in progress. The constructio now. As for the sections towar ao Phraya River construction wo	een started. Cast-in-place n is delayed about two an rd west and Maeklong which	
] 13 Jul.1984(11 months)	punctuality and faster	ent Impacts: conducted to be 30 years f traffic, only that fr congestion at level craffic congestion owing to the railway due to speeds.	om buses was considered. rossings owing to track to passengers o the latter's				
Total M/M 53.27 ILASSOCIATED AND/OF SUBCONTRACTED STU		* Above EIRR is 16 - 20%.	owing to track elevat	romotion of urban	(FY 1991 Ove	EASONS FOR PRESENT STATUS PISCAS SURVEY) HOPENELL PROPOSAL	S	
Geological and traffic entrusted to a local 12.EXPENDITURE Total Contracted	consultant 144,855 (¥'000)	5.TECHNICAL TRANSFER (1)OJT: Technical guidance the preparation of O-D to (2)Personnel training: 4 (3)Joint preparation of a	e was provided to coun ables counterparts received	training from JICA.	as 3.PRINCIPAL ①、②	L SOURCE OF INFORMATION		

ASE THA/S 313/84

I. OUTLINI	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY 2.NAME OF STUDY Comprehensive Devershipping	Thailand	I.SITE OR AREA	I.PRESENT ☐ Completed or in Progress ☐ Promoting ○ Completed ○ Partially Completed ☐ Delayed or Suspended ○ Implementing ○ Processing ☐ Discontinued or Cancelled		
3.SECTOR Transportation/Marine 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Office of the Mercanti Commission, Ministry of	le Marine Promotion	3) 3.CONTENTS OF MAJOR PROJECT(S) 1) Present status of physical distribution and selection of major commodities for domestic shipping industry 2) Present status of the domestic shipping industry 3) Cargo throughputs and present facilities of regional ports 4) Present freight movements by transportation mode and the possibility of transfer from other modes to domestic shipping 5) Pormulation of a development plan for the domestic shipping industry and regional ports 6) Roonomic and financial analysis of the operations of domestic shipping and regional ports	(PY 1991 Overseas Survey) Office of the Mercantile Marine Promotion Commission (OMPC) has requested the Industrial Finance Corporation (IFCT) of Thailand to negotiate with the OECF. The Ministry of Transport and Communications has requested for the JICA project review.		
7.OBJECTIVES OF STUDY Formulation of a compr for the coastal shippi	ehensive development plan		(FY1993 Overseas Survey) Following factors caused the project to discontinue Economic recession (1985-88) - IFCT's attitude to the project - Comparative advantage of road-transport. (FY1994 Domestic Survey) No information		
8.DATE OF S/W 9.CONSULTANT(S) The Maritime Internati Overseas Coastal Area	Feb. 1983 onal Cooperatin Center of J Development Institute	EIRR3) FIRR3)			
1	11 Oct.1984(16 months)	Conditions and Development Impacts: 1) For the shuttle service between Bangkok and Songkhla, a fleet of 7 general cargo boats (700 tons) will be suitable. 2) Institutional measures for domestic shipping: Legislation of the domestic shipping act; clear separation between international and domestic shipping; establishment of the ship registry; introduction of the permit system on ship construction; submission of the operation reports 3) Measures for promoting domestic shipping: Preferential treatment by the Investment Promotion Act; Fiscal incentives; simplification of freight documents and improvement of customs procedures; establishment of the institutional finance to give soft long-term loans			
Total M/M 39.50 11.ASSOCIATED AND/OF	Japan Field 37.50 2.00	* Above EIRR is 19.7 - 20.6%.	2.MAJOR REASONS FOR PRESENT STATUS 1) Change of priority 2) Problem of demand: difficulty of providing transportation service with profit.		
SUBCONTRACTED STU 12 EXPENDITURE		5.TECHNICAL TRANSPER 1) OUT on the operation of domestic shipping and ports 2) Participation of the counterparts in the JICA training program	(FY 1991 Overseas Survey) Therer is no law which enpowers the Government to guarantee private loan. The IFCT has the view that the project is not viable. 3.PRINCIPAL SOURCE OF INFORMATION		
Total Contracted	219,015 (¥'000) 88,824	2) Particapation of the counterparts in the JICA training program	0.0		

ASE THA/A 309/84

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS				III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY	Thailand	1.SITE OR AREA					1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY	dium Scale Irrigation	NakhonRatchasima an	d BuriRam Prov	inces, north	eastern par	t of Thailand	STATUS Completed Partially Completed Delayed or Suspended
Package Project	·	2.PROJECT COST (US\$1,000)	1)	Total Cost 58,874	Local Cos 28,13		● Implementing ○ Processing □ Discontinued or Cancelled
A SOCTION		Price in 1983	2) 3)				(Description)
3.SECTOR		3.CONTENTS OF MAJO	R PROJECT(S)		· · · · · · · · · · · · · · · · · · ·		The mid-size dam in Lam Plai Mat was constructed by the Thai Government fund during 1987 - 1991.
			Lam Plai Mat	Nong Lam Puk	Huai Phlu		Small-scale dams in adjustment areas and surrounding dams have been under construction since 1990, with Thai Government funds.
4.REFERENCE NO.		Yrrigation area	9,100	300	700		(FY1991 Overseas Survey) No additional information.
5.TYPE OF STUDY	F/S	Dam height pondage	44.6m 90 MCM	12.0m 4 MCM	20m 6 MCM		No additional information. (FY 1993 Overseas Survey)
6.COUNTERPART AGENC' RID (Royal Irrigation D Agriculture and Coopera	Department), Ministry of	Diversion weir Canal irrigation drainage	1 site 215km 45km	13km	29km 1km		After D/D was conducted by government budget in 1985, Dam construction in Ram Prai Mat project site has been completed by government budget in 1991. Total project cost was 325 million Bhats. Irrigation canal construction was splited into 2 phases. As a 1st stage of 20,000 rai of irrigation area, 14km of irrigation canal out of 62km was completed in 1993. As a 2nd stage of 40,000 rai
7.OBJECTIVES OF STUDY			•				irrigation area, construction of 150km of irrigation canal is to be initiated in 1994 and to be completed within 6 years.
	development through the un-size dam for irrigation						(FY1994 Domestic Survey) Canal construction of phase-2is underway. Both detailed design and construction were commenced in 1992 and scheduled to be completed in 1996. Project cost including D/D is 290 million Baht.
						•	
8.DATE OF S/W	Dec.1982	Imp. Period:					<u>1</u> ·
9.CONSULTANT(S)		4.FEASIBILITY AND	Feasibility:	EIRR1) EIRR2)	8.70 11.20	FIRR1) FIRR2)	
Sanyu Consultants Inc.	_	ITS ASSUMPTIONS	Yes	EIRR2)		FIRR3)	
Naigai Engineering Co., Ltd. Kokusai Kougyo Co., Ltd.		Conditions and Development Impacts: Irrigation agriculture development plan: The proposed cropping patern is 100% of wet season paddy and 10% of dry season upland crop. The terminal irrigation facilities are planned at each 20-30 ha of					
10.STUDY TEAM]	irrigable area.					
No.of Members 1 Period Feb.1983-J	4 ul.1984(25 months)	Water use development Field crop adjustmentish as well as to surrounding shallow	ent facilities secure farmers	for night wi	ill be estab er and for	olished to breed other use through	n .
Total M/M	Japan Field						2.MAJOR REASONS FOR PRESENT STATUS
82.10	38.31 43.79						Recently external finance is mainly used for the implementation of
11.ASSOCIATED AND/OR SUBCONTRACTED STUD							big projects, and the Thai Government itself finances small and medium size projects.
						 -	
		5.TECHNICAL TRA]			2 PRINCIPAL COURCE OF INFORMATION
12.EXPENDITURE Total	240,296 (¥'000)	Study method and de	velopment plans	ning method.	JICA c/p t	raining.	3.PRINCIPAL SOURCE OF INFORMATION
Contracted	223,112						(D, @, @)

PROJECT SUMMARY (Other)

ASE THA/S 601/84

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS OF STUDY RESULTS			
1.COUNTRY 2.NAME OF STUDY Traffic Safety Plan	Thailand	1.SITE OR AREA	Entire country		· .	I.PRESENT STATUS	■ In Progress or In Use □ Delayed □ Discontinued
		2.PROJECT COST (US\$1,000)	Total C	ost Local Cost	Foreign Cost	(Description) Utilizing the Dept. of Highway facilities.	e guidelines and other suggestions of the study, the ays have been installing necessary traffic-safety
3.SECTOR Transportation/(Transportation) 4.REFERENCE NO.	tation in)General	3.CONTENTS OF M In order to promot the following tasks	te traffic safety in	road transport, the	study conducted	(FY1991 Oversed The results	of study have been utilized for a loan proposal to the the Sixth National Economic and Social Development
5.TYPE OF STUDY 6.COUNTERPART AGENCY Dept. of Highways, Mini		(1) Collection and (2) Identification (3) Guidelines of j (4) Planning of phy	analysis of road traf of high-risk areas physical facilities ysical facilities ng-term plan for inst		ilities	Master Plan si	d the recommendations to implemented Traffic Safety nce 1987. I the gludelines of counter measures on traffic safety
7.OBJECTIVES OF STUDY	T					(FY1994 Domest: No additiona	ic Survey) ll information.
8.DATE OF S/W	Feb.1983	4.CONDITIONS ANI	D DEVELOPMENT IM	PACTS			
9.CONSULTANT(S) International Engineericentral Consultant, Inc Chodai Co., Ltd. Pacific Consultants Int			nnical transfer is muc		direct effect of		
No.of Members 1 Period May 1983-D	1 ec.1984(19 months)						
Total M/M 54.50	Japan Field 10.50 44.00					2.MAJOR REA	SONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUD							
12 EXPENDITURE Total Contracted	332,824 (¥'000) 142,810	5.TECHNICAL TRA	NSFER the counterparts in t (2 micro-comupters)	the JICA training g	orogram	3.PRINCIPAL S	SOURCE OF INFORMATION

ASE THA/S 206B/85

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY Master Plan on Flo Drainage Project	Thailand ood Protection/ in Eastern Suburban-	1.SITE OR AREA Eastern Suburban Bangkok (study area of 260 sq.km) <m p=""> East suburban area of Bangkok (Study area of 100 sq.km)<f s=""> 2.PROJECT COST M/P () 233,333 Local 140,740 Foreign</f></m>	I.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing		
Bangkok		(US\$1,000) 2) Cost Cost (US\$1,000) 46,703 (US\$1= 27 Bahts) F/S I) 98,333 51,630 46,703	O Processing Discontinued or Cancelled		
3.SECTOR Social Infrastructures Control	s/River & Erosion	3) 3.CONTENTS OF MAJOR PROJECT(S)	After the completion of the F/S, 59 pumps were provided by the Japanese grant aid. The construction of the Flood Control Operation Center was completed in Mar. 1991 by the Japanese grant.		
4.REFERENCE NO. 5.TYPE OF STUDY	M/P+F/S	<m p=""> The project aims to protect the area of 260 sq.km from floods coming from outer areas by construction of polder dykes and drain internal otorm water by providing adequate drainage facilities. The proposed measures are as</m>	The flood protection and drainage facilities were implemented in eastern suburban of Bangkok from 1988 to present such as pumpring		
6.COUNTERPART AGENC Dept.of Drainage and S Metropolitan Administr	Sewerage, Bangkok	[follows. (Structural measures) - Polder dyke (62km), gate (55 piaces), pump station (10 places), channel improvement (133km), drain pipe (110km) (Non-structural measures) - Land use regulation, provision of storm retarding basin, establishment of flood forecasting and warning system	stations, watergates, canal improvement etc.		
7.OBJECTIVES OF STUDY To evlauate the feasil drainage facilities	Y bility of building the	<pre> /pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>			
8.DATE OF S/W 9.CONSULTANT(S) Pacific Consultants In		Imp Period: Apr.1987-Mar.1992			
Tokyo Engineering Cons	sultants Co., Ltd.	Imp. Period: Apr. 1987-Mar. 1992 4-FEASIBILITY AND Feasibility: EIRR1 20.20 FIRR1 EIRR2 FIRR2 FIRR3 FIRR3			
	12 Feb.1986(32 months)	Conditions and Development Impacts: <pre> </pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <p< td=""><td></td></p<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>			
Total M/M 115.00 11.ASSOCIATED AND/OI SUBCONTRACTED STU Geological survey	1	<p s=""> Orainage facilities are to be improved based on the result of floods</p>	2.MAJOR REASONS FOR PRESENT STATUS		
12.EXPENDITURE Total Contracted	487,871 (¥°000) 331,729	5.TECHNICAL TRANSFER Technical advice on flood control operation, drainage facilities management/operation. Overseas training for counterpart staff.	3.PRINCIPAL SOURCE OF INFORMATION ①②		

ASE THA/S 316/85

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY Sanitary District V in the North - Eas	Thailand Nater Works Project tern Region	1.SITE OR AREA 10 towns and villages in the North-Eastern region of Thailand 2.PROJECT COST (USS1,000) (USS1=27.0B) 10 towns and villages in the North-Eastern region of Thailand 10 towns and villages in the North-Eastern region of Thailand 11 total Cost Local Cost Foreign Cost Society (USS1,000) Society (USS1	LPRESENT Completed or in Progress Promoting		
3.SECTOR Public Utilities/Water 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY	F/S Y	3) 3. CONTENTS OF MAJOR PROJECT(S) The main purpose of the project is to provide an improved living standard for the local people through a stabilized water supply in the Sanitary District areas. With the development of the project, it is expected that the urban activity in the areas, which would have the characteristics inbetween of "Urban" and "Rural", will be encouraged to grow vigorously in future. Summary of the proposed project is tabulated as follows. Sub-project Name Served Max. Capacity Major Facility	(Description) The project implementation for respective sanitary district may be commenced with their own budget sources. (FY1993 Overseas Survey) The water works in each town were put in the ordinary budget of the provincial water supply development division. The projects proposed in the study are in lower priority of each town. (FY1994 Domestic Survey)		
Department of Public Wo Interior 7.OBJECTIVES OF STUDY Stable supply of clear		Salve Salv	At the time of F/S study, the Public works Department of the Ministry of Interiar was the counter-part Agency. The project was transferred to the Office of Urban Development of the Department of Local Administration, Ministry of Interior at the implementation stage. The project is being descussed among the Office of Urban Development and those Sanitary District offices concerned with the project.		
8.DATE OF S/W 9.CONSULTANT(S) Sanyu Consultants Inc.	Jul. 1984	Imp. Period: Oct.1986-May.1989 4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3) Conditions and Development Impacts: As preconditions, samples of F/S were conducted in 10 districts.			
IO.STUDY TEAM No.of Members 5 Period Oct.1984-F	eb.1986(16.5 months)	Development Impacts: Since the construction and development of the water works is to be conducted in the town where the provincial office is, the execution and benefit from this kind of project exerts much influence not only on the town but on surrounding districts. * Above FIRR is 6 - 8%.			
Total M/M 48.60 II.ASSOCIATED AND/OR SUBCONTRACTED STUD		5.TECHNICAL TRANSFER	2.MAJOR REASONS FOR PRESENT STATUS The project is executed by the respective sanitary district organization.		
12.EXPENDITURE Total Contracted	134,763 (¥'000) 126,639	Acceptance of 2 trainees from the local counterpart	3.PRINCIPAL SOURCE OF INFORMATION ①、②		

ASE THA/S 317/85

I. OUTLINI	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY 2.NAME OF STUDY Road Pevel coment is	Thailand n the North - Eastern	I.SITE OR AREA Northeaster Region	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended
Region (Phase 2)		2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 42,155 (US\$1=20B) 2)	● Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR Transportation/Road		3) 3.CONTENTS OF MAJOR PROJECT(S) (1) New construction and improvement Total 502.1km:	(Description) Nov.1988 OECF loan agreement (4,085 million yen), of which 1,008 million was for the construction and improvement of 7 routes (235.1km) of the Northeastern Region.
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Dept. of Highways, Min	F/S CY istry of Communications	11A. Khong ~ J.R. 2180 46.8km; 2)A. Chonnabot ~ B. Dong Han 24.0km; 31A. Nam Phong ~ B. Nong Tum 28.0km; 4)B. Lao(J.R. 210) ~ B. Tha Yom 40.7km; 5]B. Huai Koeng ~ A. Kumphawapi 14.2km; 6) A. Nong Han ~ A. Kumphawapi 34.3km; 7}A.Sawang Daen Din ~ A. Song Dao 19.1km; 8]A. Selaphum ~ B.Kham Phon Sung 46.3km; 9]B. Na Suang ~ B. Na. Yia 13.6km; 10]A. Maha Chana Chai ~ A. Kho Wang 24.5km; 11)B. Som Poi Noi ~ B. Muang Mak 28.4km; 12)A. Chom Phra ~ B. Nong Khawao 31.1km; 13)A. Fārakhon Chai ~ A. Krasang 47.1km; 14]B. Nong Pha Ong ~ A. Nong Ki 52.6km; 15)A. Si Khiu(J.R.2) ~ A. Chok	Apr.1990 Construction started The rest of new construction and improvement and rehabilitation are to be financed by the World Bank and own fund (part of the work is already under way). May 1993 OECP loan agreement (Highway Sector Project (2), 2,184 million yen) Major Component: 1 Provincial Road
7.OBJECTIVES OF STUDY Feasibility analysis o improvement and rehabi	f new construction.	Chai 51.4km. (2) Rehabilitation 8 routes (90km) 16) A.Sikhui ~ A.Dan Khun Thot 19km: 16) A.Sikhui ~ A.Dan Khun Thot 19km: 17) A.Prathai ~ A.Khok Chik 10km 18) A. Relasin ~ B.Lum Chai 10km: 19) A.Pak Thong Chai ~ J.R.2 13km 21) A.Chokchai ~ A.khonburi 10km 22) B. Wat ~ A.Kong 10km: 22) B. Wat ~ A.Kong 10km: 23) Nakhon Ratchasima ~ A.Chokhcai	2 Local Roads
		The total project cost is 1,839,22 million bahts. * The project cost 1)above is the economic construction costs of Improvement and New Construction Routes.	For this project, OECF loan (472.51 million bahts), World Bank loan (406.48 million bahts) and DOH budget (425.04 million bahts) were appropriated.
8.DATE OF S/W 9.CONSULTANT(S) Katahira & Engineers I Nippon Koei Co., Ltd.	Mar.1984 International	Imp. Period: Jan. 1985-Dec. 1987 4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1) FIRR1) EIRR2) FIRR2) EIRR3) FIRR3)	The classification of implementing routes and exact distances in terms of the financial sources are as follows. (By OBCF): New Construction and Improvement, 3)28.0km, 4)40.7km, 5)14.2km, 6)34.3km, 8)46.3km, 10)24.5km, 13)47.1km. (By World Bank): New Construction and Improvement, 2)24.0km, 11)28.0km, 15)52.0km, Repair, 16)48.0km, 18)28.0km. (By DOH): New Construction and Improvement, 1)30.9km, 7)19.2km, 9)11.7km, 12)31.5km, 14)53.0km, Repair, 17)35.3km, 20)8.1km,
IO.STUDY TEAM No.of Members	12 Jul.1985(11 months)	Conditions and Development Impacts: Direct effects: Direct effects: 1) Decrease of transportation costs to road users 2) Increase of value added of agricultural produce 3) Saving of road maintenance costs Social impacts: 1) Improved access to administrative services 2) Improvement of educational standards 3) Improvement of medical services 4) Narrowing of income disparities 4 Five sections with higher EIRRS are 2) 22.24, 15) 19.74, 13) 17.14,	21)27.8km, 22)18.7km, 23)26.7km, and No Implementation of Repair of 19). (Nos. above correspond with nos. on 3. CONTENTS of MAJOR PROJECT(S) above.) The Total completed distances are 485.4km for new construction and improvement and 192.6km for repair. (PY1994 Domestic Survey) No additional information
Total M/M 57.56	Japan Field 5.00 52.56		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OF SUBCONTRACTED STU			
12.EXPENDITURE Total	194,238 (¥'000)	5.TECHNICAL TRANSFER 1) OJT: 21 Participation of the counterparts in the JICA training program; 3) Employment of local consultants; 4) Gift of equipment and technical guidance	
Contracted		guidance	0. 2. 3. 6

ASE THA/S 315/85

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Thailand 2.NAME OF STUDY Establishment of a Large Repair Shipyard		1.SITE OR AREA	I.PRESENT STATUS Completed or in Progress Promoting Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Marine Transportation 4 4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Board of Investment	& Ships	3) 3.CONTENTS OF MAJOR PROJECT(S) - Dry dock 175m x 28m x d.11.1m - Area of 300m x 300m = 90,000 sq.m by reclaming for ship repairing - Quay length = 150m Any other facilities necessary for shiprepairing. Time schedule: start of preparation for construction, Jan. 1986 start of Construction work, Sept. 1987 start of Operation, Jan. 1990 Completion of construction work, March 1990	(Description) Suspended after the completion of the study because of the low feasibility. The Government has been encouraging the private sector investment. JICA is conducting a M/P study on the shipbuilding industry, and reviewing the proposal of the study. Private shipping company and shippyard have jointly operated and going to invest shippyard facilities on the basis of leasing contract of site between Port Authority of Thailand and the company. (FY1993 Overseas Survey) Prospective low return on investment caused the above company to discontinue the project. At present, big ships go to Singapore for repairment.
7.OBJECTIVES OF STUDY Feasibility analysis of a repair shipya	ırd		
8.DATE OF S/W Oct.1982 9.CONSULTANT(S) Overseas Ships Building Cooperation Cen	nter	Imp. Period:	
10.STUDY TEAM No.of Members 9 Period Jul.1984-May.1985 (11 mo	nths)	Conditions and Development Impacts: The growth rate of the cargo carried by the Thai shipping companies(which has a share of 10% of the total transportation volume) was estimated on the bases of growth of GDP and international trade. The scale of the shippard was then determined by evaluating the types of ships used and the nature of repair work needed. Development effects will be substantial, because the existing capacity of the domestic repair yards is considerably short of the demand. The major shippards in Thailand are located along the Chaopraya River in Bangkok city surrounded by housing and it is imposible for them to expand their facilities to bigger sizes. At present their max.	st.
Total M/M Japan 51.00 28.00 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Field 23.00	capacity to accommodate for repairing services is 5,000 tons. The max. capacity will become 20,000 tons if this shipyard is established. (FY 1993 Domestic Survey)	2.MAJOR REASONS FOR PRESENT STATUS
12.EXPENDITURE 146, Contracted 158,	390 (¥'000) 523	5.TECHNICAL TRANSPER 1) Participation of one counterpart in the JICA training program 2) Employment of local consultants	3.PRINCIPAL SOURCE OF INFORMATION ①②

ASE THA/A 310/85

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESU	JLTS	III. PRESENT STATUS OF STUDIED PROJECT			
1.COUNTRY	Thailand	LSITE OR AREA		I.PRESENT	ng		
2.NAME OF STUDY Comprehensive Store	age Facilities	Whole country		O Partially Completed Delayed	or Suspended		
Development Projec		2.PROJECT COST Total Cost Loc (US\$1,000) 1) 42,129 US\$1=202.83Yen in Dec.1984 2)	ral Cost Foreign Cost 21,167 20,962	○ Implementing ○ Processing ■ Disconting	nued or Cancelled		
3.SECTOR	I	3)		(Description) In 1986, Thai government drastically revised the r	ice marketing		
Agriculture/General	.	3.CONTENTS OF MAJOR PROJECT(S) L. Warehouse construction:		policy and abolished the conventional government procusupport prices. As a result, the operational scale of Warehouse Organization (PMO) was radically reduced. On	urement at Public		
4.REFERENCE NO.		State level - 10 sites Local level - 5 sites		warehouse Organization (PMO) was radically reduced. On hand, the government has been implementing the develop port at Laem Chabang and planned to construct integra	pment of the		
5.TYPE OF STUDY	F/S	Seaport Warehouse - 1 site at Laem Chabang . Improvement on processing and loading facilities shipping exportable rice:	for	for collecting, processing and exporting agricultural	products in the idered the		
6.COUNTERPART AGENC		River port - 2 sites (Nonthaburi, Rajburana) Deep sea port - 1 site (Laem Chabang)	•	possibility of including the loading facilities for exthe area, but the idea did not materialize.			
Public Warehouse Organ	ization (PWO)	 Grain reprocessing facility: 6 sites Storage technology improvement and training cente 1 site (Nonthaburi) 	r construction:	The rice exports have long been made from the river Bangkok city, and the construction of modern facilities by private companies.	es are underway		
7.OBJECTIVES OF STUDY		Project costs above are in Dec 1984 prices.		The exports of Thai rice reached 5.7 million tons rationalization of rice marketing and modernization of facilities are strongly desired by both the government organization.	f marketing		
				(FY1993 Overseas Survey) Thereason of discontinuation is because many gover joined rice export programme. It lowered PWO's rank a exporter.	nment agencies as a rice		
				{FY1994 Domestic Survey}			
8.DATE OF S/W	Dec.1983	Imp. Period:		No information.			
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRR1) 12.					
Overseas Merchandise I Sanyu Consultants Inc.	nspection Co., Ltd.	TTS ASSUMPTIONS Yes EIRR2) 13	FIRR3)				
		Conditions and Development Impacts: Conditions: 1.Recruiting and training of personnel; and control; 3.Reb by Cooperation with other organ	2.Proper management ization.				
		Development Impacts: 1.Expansion of public activities by PWO; 2.Support policies and materialize long-term stabilization of					
10.STUDY TEAM	_	policies and materialize long-term stabilization or and consumers' milled rice price: 3 Improvement ar rice marketing by expanding and improving facilities	rationalization of				
1	11	markets; 4.Continued Sales to existing markets and by improving export rice quality and expanding ships	developing new markets ing facilities and	•			
Period Feb. 1984-0	Jun.1985 (7 months)	capacities for loading onto a large sized ocean-goin losses during storage: 6.Support the activities of	g vessels; 5.Reducing public organizations				
Total M/M	Japan Field	such as agricultural cooperatives, BAAC, etc. by off Warehouse; 7.Provinding services for marketing other	r agricultural	2.MAJOR REASONS FOR PRESENT STATUS			
40.66	19.74 20.92	products by offering the use of seasonal empty space facilities of the warehouse. Above EIRRs are 1) for River port and 2) for Sea 1		The government policy is in principle to let the	rice marketing in		
11.ASSOCIATED AND/OR	X			the hands of the private sector, including investment facilities.	s in the related		
SUBCONTRACTED STU	· ·						
the state of the state of		5.TECHNICAL TRANSFER					
12.EXPENDITURE		SALECTIMENT DIVINOLEX		3.PRINCIPAL SOURCE OF INFORMATION			
Total	122,940 (¥'000)			0.0			
Contracted	114,782						

ASE THA/A 311/85

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
I.COUNTRY 2.NAME OF STUDY Sakae Krang River		1.SITE OR AREA Sakae Krang River Basin(6,300 sq.km)	J.PRESENT ☐ Completed or in Progress ☐ Promoting STATUS ☐ Completed ☐ Partialty Completed ☐ Delayed or Suspended	
Project		2.PROJECT COST Total Cost Local Cost Foreign Cost (U\$\s1,000) 1) 107,226 35,144 72,082 U\$\s\s\s\s\s\s\s\s\s\s\s\s\s\s\s\s\s\s\s	O Implementing O Processing Discontinued or Cancelled	
3.SECTOR Agriculture/General		3) 3.CONTENTS OF MAJOR PROJECT(S) Mae Wong irrigation scheme was selected as a result of M/P and Pre-P/S.	(Description) An environmental impact assessment study was undertaken by RID for earlier implementation of the project.	
4.REFERENCE NO.		1.Irrigation area : 46,700ha 2.Water source : Mae Wong river 3.Upper Mae Wong dam : Rock-fill type	(FY1991 Overseas Survey) No additional information.	
5.TYPE OF STUDY 6.COUNTERPART AGENCY RID (Royal Irrigation D Ministry of Agriculture	Department),	Height 57m, Crest Length 794m 4.Irrigation Facilities: Intake weir 2 sites Main canal 76.7 km Secondary canal 285.2 km Drainage canal 204.2 km * Implementation period below is 7 years.	[FY193 Overseas Survey] Upper Mewong dam, 230MCM capacity, proposed by JICA study is classified as large scale according to RID's regulation and Environmental Impact Assessment study is requested to be conducted before the project is implemented. EIA study was completed by Chemgmai University in Dec. 1993. Rid is now preparing request for 20th OECF loan.	
7.OBJECTIVES OF STUDY Irrigation of Sakae Kra Pre-F/S and M/P			(FY1994 Domestic Survey) The environmental impact assessment was completed by RID in Dec. 1993. In responce to the request from RID, OECF decided to execute a SAPROF survey to order to update the F/S conducted by JICA in 1984- 36.	
8.DATE OF S/W	Jul.1984	Imp. Period:		
9.CONSULTANT(S) Nippon Koei Co., Ltd. Kyowa Engineering Consu	iltants Co., Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: EIRR1) 13.00 FIRR1) Yes EIRR2) FIRR2) EIRR3) FIRR3)		
Nippon Giken Inc.		Conditions and Development Impacts: 1.Increase of crop production 2.Improvement of living standard and welfare 3.Improvement of cropping productivity in the dry season		
	6 [ar.1986(19 months)			
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS	
90.27 II.ASSOCIATED AND/OR SUBCONTRACTED STUD	■ 1 · · · · · · · · · · · · · · · · · ·	5.TECHNICAL TRANSFER		
12.EXPENDITURE Total	257,848 (¥'000)	Technology transfer to counterpart in the course of the study.	3.PRINCIPAL SOURCE OF INFORMATION	
Contracted	246,885		0. 2. 0	

ASE THA/S 318/86

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY 2.NAME OF STUDY	Thailand	1.SITE OR AREA Coastal routes of Thailand, 43 routes	I.PRESENT ☐ Completed or in Progress ☐ Promoting STATUS ☐ Completed ☐ Partially Completed ☐ Delayed or Suspended	
breaging riant beveropment froject		2.PROJECT COST	 ○ Implementing ○ Processing □ Discontinued or Cancelled 	
3.SECTOR		3)	(Description) Suspended after the completion of F/S due to the lack of fund.	
Transportation/Port	····	3.CONTENTS OF MAJOR PROJECT(S) 43 channels were studied and quantity of necessary maintenance dredging	F/S must be reviewed, because the exchange rate has largely changed since the last F/S.	
4.REFERENCE NO.		was estimated and was compared with the capacity of present dredging plant.		
5.TYPE OF STUDY	F/S	Dredging plant development project such as construction of 2 training hopper dredging, preparation of mechanical center was proposed.	(FY1993 Domestic Survey) As of Dec.1993: In FY 1993, Yen Loan was requested from the Government of Thailand.	
6.COUNTERPART AGEN			and presently, the matter is under negociation between OECF and GOT. Horbour Department requested financial assistance for donors	
Communication	inistry of Transport and		including OECF. Howeveer, no assistance is available.	
			(FY1994 Domestic Survey) No additional information.	
7.OBJECTIVES OF STUD Frame of long-range d	redging plan target in 2000			
and development plan maintenance of facili	including improvement and ties.			
8.DATE OF S/W	Feb.1985	Imp. Period: Apr. 1988~Mar. 1991		
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRRI) 12.20 FIRRI)] , ''	
Overseas Coastal Area	Development Institute	ITS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)		
		Conditions and Development Impacts: Comparison of the proposed project under two conditions: with case and without case. Cost and benefit is shown with cost of 1985 (1 baht = 9.01 yen)		
10.STUDY TEAM		As the effect of development, improvement of the dredging capability, possibility of the effective maintenance and repaix of the dredging boat, and possibility of the development for the community are given.		
No.of Members Period May 1985-	8 -Jun.1986(14 months)			
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS	
49.47	18.17 31.30		Delay due to the ceiling on the government budget	
11.ASSOCIATED AND/O SUBCONTRACTED STU				
		5.TECHNICAL TRANSFER		
12.EXPENDITURE		The business training was carried out at some Japanese important port, Port and Harbour Research Institute, and some shipyard, etc.	3.PRINCIPAL SOURCE OF INFORMATION	
Total Contracted	133,282 (¥'000) d 119,922		0. ②	

ASE THA/A 312/86

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY Bang Nara Irrigation and Drainage Project	I.SITE OR AREA	I.PRESENT STATUS Completed or in Progress Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled		
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY RID (Royal Irrigation Department)	3) 3.CONTENTS OF MAJOR PROJECT(S) - To construct tidal gates both in Nara Tik side and Tagbai side of Bang Nara River - Pumping irrigation by utilizing planned reservoir with 9 pumping stations - Rehabilitation of drainage rivers flowing into Bang Nara River - To install 6 check gates to control acid water Outline of the Project Tidal Gate: Upper Gate Width 120m, Feeder Canal 750m, closme dam 220m Down stream Gate Width 24m, Feeder Canal 450m, closme dam 75m Facility to control Achid Water: 6 check gates	(Description) The proposed project was implemented by Japanese grand aid. Feb. 1988 E/N siged for D/D (94 million yen) Feb Jun. 1988 Detailed design undertaken Construction started Sep. 1988 E/N siged (888 million yen) Jul. 1989 E/N siged (888 million yen) Jun. 1990 E/N siged (375 million yen) Nov. 1990 Construction completed [FY1991 Overseas Survey]		
7.OBJECTIVES OF STUDY Establishment of Agricultural Development Plan for the Area of 9,100 ha in the Bang Nava river Basin.	Irrigation : 9,100ha Drainage improvement 11,490ha Froject cost F/C	The total Japanese grant aid amounted to 3,867 million yen. There were minor changes in the location of fixed pumping stations owing to the land acquisition problems. (FY1994 Domestic Survey) Tidal gate was completed in 1990 under JICA grant-aid. Installation of 10 pump stations under the Government budget is delayed due to the problems of right of way, etc. Design of 9 pump stations has been completed. The installation of 3 pump stations out of 9 is under-way		
8.DATE OF S/W Jul, 1984 9.CONSULTANT(S) Sanyu Consultants Inc. Japan Engineering Consultants Co., Ltd.	Imp. Period: 4.FEASIBILITY AND ITS ASSUMPTIONS Yes Track			
IO.STUDY TEAM No.of Members 12 Period May.1985-Jan.1987(21 months)	Conditions and Development Impacts: The beneficial area: - by pumping irrigation for existing paddy fields, 9,100 ha - by rehabilitation of river, 5,280 ha for paddy fields and 6,210ha for rubber fields The main purpose of the project is to utilize Bang Nara water resources for irrigation and to control the flood in rainy season. And by using the proposed impounding water, the 9,100ha of paddy field will be irrigated by nine Pumping stations. By the improvement of drainage canal/rivers the 5,280ha of paddy field and 6,210ha of rubber			
Total M/M Japan Field 106.23 42.55 63.69 HASSOCIATED AND/OR SUBCONTRACTED STUDY	plantation will be benefitted as drainage improvement. The irrigation development consists of 4,870ha of paddy fields located along the proposed reservior by portable pumps, and the remaining area to be irrigated by nine (9) RID pumping station. The irrigation aims to plant wet season paddy during wet season and to plant upland uops in the area of 20% of the paddy field during the dry season. From economic poid of view, the development plan of swamp, forest and mild loan is excluded in this plan. STECHNICAL TRANSFER	2 MAJOR REASONS FOR PRESENT STATUS		
12.EXPENDITURE 293,737 (¥'000 Contracted 271,828		3.PRINCIPAL SOURCE OF INFORMATION ①、②		

PROJECT SUMMARY (Other)

ASE THA/S 602/86

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS OF STUDY RESULTS	
1.COUNTRY Thailand 2.NAME OF STUDY Road Improvement, Rehabilitation and Traffic Safety in		1.SITE OR AREA Bangkok Metropo	olitan Area	1.PRESENT STATUS ☐ In Progress or In Use ☐ Delayed ☐ Discontinued	
Bangkok		(US\$1,000)		(Description) Many traffic safety projects were carried out along with the guideline and designs by Thai government budget and they are now in sound operation.	
3.SECTOR Transportation/(Transpo	ortation in)General			Construction project of Rama IV flyover is now under construction by Japanese grant aid.	
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Bangkok Metropolitan A		The study compiled basic information recommended some road improvementsPlyover-Intersection improvement -Pavement improvement -Busstop improvement -Pedestrian path -Guard -Median -Safet -Traffic sign -Traffi -Pedestrian crossing bridge -Road ramong others.	fence , island , signal	(FY1993 Overseas : Besides Rama IV M/P. (FY1994 Domestic : No additional i	flyover, BMA constructed 10 flyovers based on the Survey)
7.OBJECTIVES OF STUDY Policy recommendations	on traffic safety measures				
8.DATE OF S/W	Mar.1985	4.CONDITIONS AND DEVELOPMENT IN	IDACTS		
9.CONSULTANT(S) International Engineer Central Consultant, In Chodai Co., Ltd.	ing Consultants Association	The study more language will confribute to t	the planning process on traffic pavement repairs. r traffic safety was efficiently gring guideline and actual design		
Total M/M	Japan Field 7.01 143.93			2.MAJOR REASO	NS FOR PRESENT STATUS
11.ASSOCIATED AND/OF SUBCONTRACTED STU					
12.EXPENDITURE Total Contracted	412,771 (¥'000) 4,182	5.TECHNICAL TRANSFER 1) OJT on the evaluation method of pavicounterparts in the JICA training programprovement); 3) Employment of local c	ement; 2) Participation of the ram (road administration and road onsultants (traffic survey,	3.PRINCIPAL SOU	JRCE OF INFORMATION

ASE THA/A 102/87

Compiled Mar.1990 Revised Mar.1995

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY 2.NAME OF STUDY Aerial Photography Management Plan in		An Area of 20,000sq.km extended over Kanchanaburi Province and other 4 provinces in the western part of the Central Plain Region 2.PROJECT COST	1.PRESENT STATUS	☐ In Progress or In Use ☐ Delayed ■ Discontinued	
National Reserve F		(US\$1,000) Total Cost Local Cost Foreign Cost (C		(Description) In order to prepare a project based on the proposed plans, the Royal Porest Department has been ironing out the handling of the existing projects by itself. The proposed plans contain various types of projects.	
Forestry/Forestry & For	est Conservation	3.CONTENTS OF MAJOR PROJECT(S) Using the results of land classification conducted on Model Area (some	Therefore J by conducting	apan will be needed for supporting to prepare a project a follow-up survey and/or an experimental project.	
4.REFERENCE NO. 5.TYPE OF STUDY	M/P	20,000 ha) within the Study Area (some 2 million ha), national forest management plan was fourmulated. The planning components are: 1. Forest Land Use Plan: The Model Area was divided into three forest land use classification:	(FY1993 Overseas Survey) Major reasons of present status are: The change of Thai Government policy on national forest land use There is noprovision for after land use in the national park,		
6.COUNTERPART AGENCY Royal Forestry Department, Ministry of Agriculture and Cooperatives		The Model Area was divided into three forest land use classification: Forestry area (6,065 ha), agroforestry area (911 ha) and conservation area (14,671 ha), with the integrated evaluation of the land classification results and other related surveys. 2. Forestry Area Plan: For the forestry area, forest management works with the assumption of sustainable forestry production were proposed on:		the agroforestry program cannot start in the model ment wanted RFD to be responsible for forest protection e conservation. Substry will be privatalized. Nobody in RFD, at present, tention to the project.	
7.OBJECTIVES OF STUDY This forest management plan is formulated in order to restore the function which the forest had originally had in the area of the degraded national reserve forest.		- artificial forest, assuming the rotation ages of 50 years for slowly growing species such as teak, and 5 years for fast growing species; - natural forest, assuming selective cutting cycle of 40 years with the selective cutting rate of 20%; - bamboo forest. For conducting those works, necessary facilities are planned; - nurserise, with the total pruduction of 70,000 seedlings, shared with the following agroforestry plan; - forest roads, with the total length of 25 km; - countermeasures for fire accidents. Agroforestry Area Plan: For the agroforestry area, in order to harmonize local life of 54 households in the Model Area and forest conservation, the following plans	(FY1994 Domest No informati		
8.DATE OF S/W	Jul.1985	4.CONDITIONS AND DEVELOPMENT IMPACTS			
9.CONSULTANT(S) Japan Forest Technical Kokusai Kougyo Co., Ltd	· · · · · · · · · · · · · · · · · · ·	[Assumption] Currency rate; 1 baths = 5.5 yen {1987} It is necessary to improve the road networks and develop researches of tree growth. When dealing with the proposed plan of a forest village in the model area, the authorities concerned need to iron out the handling of the settlement with the persons concerned.			
I0.STUDY TEAM No.of Members 1	9	[Impact] The above mentioned plans will improve forests for timber supply, National Park and forests for soil and water conservation so that deforestation will be reduced. And the Forest Village plan will enhance the settlements of farmers who live in the encroached National Reserve Forest.			
Period Oct.1985-M	ar.1988(31 months)	- Mitigation of decrease of degradation of forest area with sustainable development of forest resources - Favourable use of land resources in terms of forest conservation and			
Total M/M Japan Field		soil and water conservation - Harmonization of forest conservation and activities of local society - Promotion of permanent relocation of locally scattered settlements	2.MAJOR REASONS FOR PRESENT STATUS		
160.00 HASSOCIATED AND/OR SUBCONTRACTED STUD		by improving infrastructure such as the road network (FY 1993 Domestic Survey)	A comprehensi the irrigation	we project including the forestry, the agriculture and is prior to the proposed project.	
12.EXPENDITURE Total Contracted	450,604 (¥'000) 434,600	5.TECHNICAL TRANSFER 1.To Accept the trainees out of counterparts: 2.To conduct jointly field works such as a forest inventory survey, a soil survey and a survey on the Forest Villages and Tropical Farming: 3.To practice works on preparation	0 0	SOURCE OF INFORMATION	

和名 国有林管理計画

ASE THA/S 319/87

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
I.COUNTRY 2.NAME OF STUDY New Krungthep Bridg Thonburi Road Exter		I.SITE OR AREA New Krung Thep Bridge: downstream side of existing Krung Thep Bridge over Chao Phraya River Thon Buri Road:between Middle and Outer Ring Roads, Thon Buri Area. 2.PROJECT COST (US\$1,000) 1) (US\$1,200) 2)	I.PRESENT STATUS Completed or in Progress Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
3.SECTOR Transportation/Road 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Public Works Department	<u></u>	3. CONTENTS OF MAJOR PROJECT(S) (1) New Krungthep Bridge Main Bridge: 4-span continuous PC Box of 476m length(125m+226m+125m), Navigational clearance in center of 34m in height and 60 in width. Thoribori Side Bangkok Side Approach Bridge 770m 599m Interchange 131m 120m Rampway 400m 480m The project cost is 1,885 million bahts. (2) Thoribori Road Extention 1st Stage Construction Target year of opening:1991, construction of a L-shaped bypass of 3.3km 2nd Stage Construction	(Description) The D/D was completed with PMD's finance for yen credit application. (1) Krung Thep Bridge: Detailed design made by Norcon (Norway) and Thai consultants. (2) Thon Buri Road: Detailed design of the first section (3.5km) completed under a local tender. Jan.1993 OECF L/A 7,546 million yen (Krungthep Bridge Construction Project) Major Components: New bridge construction, Rehabilitation of old bridge. Period : Jan.94 - Dec.96 Total Cost : 15,091 million yen (FY1991 Overseas Survey) Construction period: 1994 - 1996.	
7.OBJECTIVES OF STUDY Construction of PC brid		Target year of opening:1995,construction of a connector with ORR 6.5km The project cost is 2,469 million bahts.	(FY1992 Overseas Survey) The project is included in the 6th and 7th National Economic and Social Development Plan and its priority is high. Thai cabinet approved the construction of New Krungthep Bridge in August 1987. Application for yen credit will be done through the Ministry of Finance. The project will be completed in 1995. (FY1994 Domestic Survey) New Krun Thep Bridge Construction Project is tendering stage in 1994 and the construction will be commenced in Apr. 1995. The first	
8.DATE OF S/W 9.CONSULTANT(S) Nippon Koei Co., Ltd. Central Consultant, Inc 10.STUDY TEAM No.of Members 1		4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: EIRR1) 20.00 FIRR1) EIRR2) 41.00 FIRR2) EIRR3) FIRR3) Conditions and Development Impacts: [Conditions] 1) Construction Period: 36months(opening of FY1991) 2) Construction costs were estimated based on interviews with Japanese-affiliated construction companies: 1885 mil. Bahts(35% foreign fund) for New Krungthep bridge, and 2469 mil. Bahts(26% foreign fund) for Thoribori Road Extention. [Development Impacts] 1) Solving the problem of traffic jams in the Krungthep Bridge -	phase of Tonburi Road Extention Project (3.5km) is considered to be suspended because of the difficulty of land acquisition in the dense town area.	
Period Feb. 1986-J Total M/M 39.73	Japan Field 1.73 38.00	Thoribori Road area, Improvement of traffic conditions on the circular roads running through Bangkok without adverse effects on river traffics. 2) Facilitating the Krungthep Bridge - Thoribori Road area's turning into a major residential area for Greater Bangkok. 3) Facilitating the diffusion of the developement of Greater Bangkok area to West Chaobaya area with the Thoribori Road as the center.	2.MAJOR REASONS FOR PRESENT STATUS (1) Aging of the existing Krung Thep Bridge (2) Strong support by Public Works Dept.	
12.EXPENDITURE Total Contracted	142,329 (¥'000) 129,651	5.TECHNICAL TRANSFER (1) Two counterpart were invited to Japan for training (2) Use of local consultants	3.PRINCIPAL SOURCE OF INFORMATION ①、②、③	

ASE THA/S 320/87

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thailand 2.NAME OF STUDY Railway Yards Improvement		Bangkok, Mae Noni, Bang Sue, and Hat Yai Stations 2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1 13,357 7,557 5,800	1.PRESENT STATUS Completed or in Progress Promoting Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
3.SECTOR Transportation/Railway 4.REFERENCE NO. 5.TYPE OF STUDY	F/S	(US\$1=26.455B) 2) 3) 3.CONTENTS OF MAJOR PROJECT(S) Improvement of yard facilities (passenger facilities, freight faacilities, track facilities, electric facilities, signalling and telecommunications facilities): Bangkok: Ladditional construction of two arrival tracks for stringthening capacity of arrival tracks; 2.Modification of two departure tracks into arrival/ departure tracks for strengthening capacity of arrival/ departure.	(Description) Detailed design completed in December 1987. Part of the high-priority work for Bangkok and Bany Sue stations was implemented. At present, the project is progressing in two categories. (1) 1st category Work to improve the operational efficiency of main yards and to meet future traffic increase. Bangkok yard Construction of a new departure track and 2 arrival tracks, conversion of 2 arrival tracks to arrival/departure tracks, and extension of the	
6.COUNTERPART AGENCY State Railway of Thailand 7.OBJECTIVES OF STUDY Preparation of a basic improvement plan for 10 years with a target year of 2006 F/S for several high-priority yards with a target year of 1996		arrival/ departure tracks tor strengthening capacity of arrival/ departure tracks; 3. Additional construction of one arrival track for strengthening capacity of departure tracks. 4. Extension of effective length of the passenger car yard for strengthening capacity for passenger car; 5. Extension of effective length of tracks for DRC(diesel railcar) storage; 6. Modification of locations of signal erection and improvement of interlocking devices for ensuring train safety. Mae Nam: 1. New construction of two sorting tracks for freight cars in a place about 4 km away from the origin of the Bangkok Port Line; 2. New construction of a shortcut line between Mae Nam Station and the Bangkok Port Line; 3. Additional construction of one sorting track and extension of effective length of tracks for strengthening capacity for empty car storage. Band Sue: 1. New construction of two arrival/departure tracks in the freight station for dealing with direct transport between freight stations; 2. Improvement of signally etc.)	effective length(37 million baht, to be completed at the end of 1990). *Ban Phachi yard 25 million baht, to be completed in the middle of 1990. *Other improvements To start as scheduled. (2) 2nd category Smaller-scale work such as platform improvement. *5 to 10 yards to be improved every year. (FY1991 Overseas Survey) The project is integrated in the SRT Investment Program and the construction will be completed in 1993. (FY1993 Overseas Survey) SRT improved above yards during the period of the Sixth National Development Plan, 1987-91.	
8.DATE OF S/W 9.CONSULTANT(S) Japan Railway Technical Pacific Consultants Int The Japan Electrical Co 10.STUDY TEAM No.of Members 1: Period Dec.1985-Ju	ernational nsulting Co., Ltd.	Imp. Period: Jan. 1987-Dec. 1991 4.FEASIBILITY AND ITS ASSUMPTIONS Yes EIRR1) 18.29 FIRR1) 19.72 EIRR2) FIRR2) Conditions and Development Impacts: (1) Preconditions for IRR calculation 1. Traffic volume is forecasted for the years 1991, 1996, and 2006. 2. Of the yards taken up in the study, four high-priority yards are to be improved by 1991. (2) Development impacts 1. Improvement of yards with bottlenecks will increase passenger traffic. 2. Improvement of yard functions will lead to efficient transport and a reduction in transport cost.	Total investment cost is 120 million baht. Construction of Bangkok and Ban Pachi Yards(at the junction of the Northern and Northeastern Lines, with priority next to four major yards) has almost been completed. Schedules for Mae Nam, Band Sue, and Hat Yai Yards are being delayed, excluding some urgent cases, due to the changes in transport trend and other factors. As for Mae Nam, it has become necessary to reexamine the original plan in such respects as:the transfer of outgoing and incoming freight due to the opening of Laem Chabang Port; and new installation of oil pipeline(Mae Nam-Ayutthaya). It is also necessary to review the plan for Ban Sue regarding the relations with the Hope Well Plan, etc. As for Hat Yai, yard improvement will be promoted in accordance with the traffic trend in the future because the transport demand is somewhat sluggish at present.	
Total M/M 98.86 11.ASSOCIATED AND/OR SUBCONTRACTED STUD 12.EXPENDITURE Total Contracted	Japan Field 61.11 37.75 Y 266,088 (¥'000) 258,834	5.TECHNICAL TRANSFER 1)OJT: A seminar was held on measures for yard planning: 2)Counterparts participated in JICA training program. 3)Instruction, as well as the preparation of a guidbook, on measures for yard work improvement.	2.MAJOR REASONS FOR PRESENT STATUS 3.PRINCIPAL SOURCE OF INFORMATION 1. ②	

PROJECT SUMMARY (Other)

ASE THA/S 603/87

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
1.COUNTRY Thailand 2.NAME OF STUDY Effective Port Management and Operation System	2.PROJECT COST	I.PRESENT STATUS In Progress or in Use Delayed Discontinued
3.SECTOR	(US\$1,000) Total Cost Local Cost Foreign Cost 1) 2)	(Description) The National Port Administration Commission was established in the Ministry of Transport and Communication by accepting recommendations of the study and came into operation since December 1988.
Transportation/Port	3.CONTENTS OF MAJOR PROJECT(S) Recommendation of port management	- Port of Laem Chang The administrative body has been established in the PAT The Coontainer Terminal and the agricultural/Bulk Berth are leased to the
4.REFERENCE NO. 5.TYPE OF STUDY Other	- Determination of fundamental concept for the port planning and development policy. - Making of the port management policy. - Preparation for the operation and management as an international port.	private companies and operated by them. -Port of Map Ta Phut Started operation in 1992. IEAT became an administrative body, and
6.COUNTERPART AGENCY Ministry of Transport and Communication	Reviewing the legal system concerning port development, management and operation. Recommendation of improvement of the cargo handling.	each berth is leased to the private company. -Port of Song Khla and Port of Phket The private sector is in charge of port management and its operation.
7.OBJECTIVES OF STUDY		{FY1994 Domestic Survey} No additional information.
-Formulation of a framework for port operation		
8.DATE OF S/W Feb. 1986		
9.CONSULTANT(S) Overseas Coastal Area Development Institute	4.CONDITIONS AND DEVELOPMENT IMPACTS [Development Impacts] 1)Effective port service is indispensable for Thai economic activity, and at the same time port development is emphasized its importance as main infrastructure for promotion of industrial location and as a core of regional economical development. 2)Reduction of transportation cost through the effective port operation	
No.of Members 12 Period Aug. 1986-Mar. 1988 (8 months)	3) Mitigation of the congestion at Bangkok port as well as promotion of the development of the Eastern Seaboard region are brought about through the enhancement of the effectiveness of containe cargo handling and inland transportation at Port of Laem Chabang.	
Total M/M Japan Field 99.90 48.44 51.36		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY beagal System		
12.EXPENDITURE	5.TECHNICAL TRANSFER The study of port management was carried out for the counterpart.	3.PRINCIPAL SOURCE OF INFORMATION ①. ②

ASE THA/S 104/88

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
1.COUNTRY Thailand 2.NAME OF STUDY Flood Forecasting System in the Chao Phraya River Basin	1.SITE OR AREA Chao Phraya River Basin(162,000 sq.km)	I.PRESENT ☐ In Progress or In Use STATUS ☐ Delayed ☐ Discontinued
3.SECTOR	2.PROJECT COST	(Description) Royal Irrigation Department highly appreciated the study and prepared to pledge for the grant aid for the urgent projects among the proposed plans, but has not requested to the Government of Japan The RID has an intention of requesting similar projects of
Social Infrastructures/River & Brosion Control 4.REFERENCE NO. 5.TYPE OF STUDY M/P 6.COUNTERPART AGENCY	3.CONTENTS OF MAJOR PROJECT(S) Step 1: Flood forecasting system started with the existing facilities as the bases and by adding auxillary equipment as required. This system is composed of (1) 34 of rainfall gauging stations, (2) 31 of water level gauging stations, (3) 54 of HF radio stations, (4) 7 of VHF radio stations, and (5) one set of data management system. Step 2: Flood forecasting system with latest equipment and facilities operated under full flood forecasting organizations. This system is	irrigation water management sysytem. (FY 1991 Overseas Survey) No policy has come out regarding this project. (FY1993 Overseas Survey) Because the JICA study didn't provide, Apecific flood forecasting method, RID is using existing method to provide accurate result.
Royal Irrigation Department, Ministry of Agriculture and Cooperatives 7.OBJECTIVES OF STUDY Formulation of a flood forecasting system over Chao Phraya river basin	operated under full flood forecasting organizations. This system is composed of (1) 65 of rainfall gauging stations, (2) 19 of water level gauging stations, (3) 19 of rainfall/water level gauging stations, (4) 2 of radar rainfall gauging stations, (5) 110 of VHF radio stations, (6) 15 of VHF repeater stations, (7) 2 of VHF radio stations, (8) 5 of substations, (9) 6 of terminal stations of TOT, (10) one of flood forecasting center, and (11) one set of data management system.	(FY1994 Domestic Survey) Although the Project had been expected to proceed to the next stage, it has not been realized yet.
8.DATE OF S/W Jul. 1986	A CONDITIONS AND DESIGN OR ACTUAL AND ACTES	
9.CONSULTANT(S) CTI Engineering Co., Ltd. Nippon Koei Co., Ltd.	4.CONDITIONS AND DEVELOPMENT IMPACTS The flood forecasting system opens up to the possibilities of highly reliable flood forecasting services through collection of flood information from extensive areas of the Chao Phraya River basin. The communication networks of the flood forecasting systems render great services in communication other than flood forecasting. It is expected to mitigate the flood damage at the main urban areas along the river course such as Nakon Sawan. Chai-Nat, Ayutaya, Bangkok, etc. through the efficient flood fighting works and evacuation of the inhabitants.	
No.of Members 11 Period Feb.1987-Jun.1988(16 months)	Besides, the hydrological data collected and managed by this system can be used as the basic data to formulate the comprehensive flood control plan in the Chao-Phraya River Basin.	
Total M/M Japan Fic. 73.32 38.47 34. 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY		2.MAJOR REASONS FOR PRESENT STATUS Grant and projects by the Government of Japan has been narrowed down according to the increase of GNP of Thailand. The Gov't of thailand might put higher priority to realize the water resources management system which has been studied in parallel with this Project.
12 EXPENDITURE 209,304 (¥0) Contracted 183,794	5.TECHNICAL TRANSFER (0) Execution of an intensive lecture course to counterparts on hydrologic computation procedures.	3.PRINCIPAL SOURCE OF INFORMATION ①、②

II. SUMMARY OF STUDY RESULTS

ASE THA/S 207B/88

I. OUTLINE OF STUDY

Revised Mar.1995 III. PRESENT STATUS OF STUDIED PROJECT

		i	L
1.COUNTRY	Thailand	i.SITE OR AREA	1.PRESENT ■ Completed or in Progress □ Promoting
2.NAME OF STUDY		Central Region (26 changwats, including Bangkok; 104,000 sg.km, pop. 17	STATUS Completed
	the Central Region	million)	O Partially Completed Delayed or Suspended
		2.PROJECT COST M/P 1) 79, 202 Local Foreign 49, 151 Cost Cost	● Implementing
		(US\$1,000) ~~	O Processing Discontinued or Cancelled
		US\$1=25B F/S 1) 398,960 202,640 196,320	(Description)
3.SECTOR	,	3)	15 routes out of 21 are under construction by OECF finance (L/A 1988 Nov. 4,117 million yen). ML-5 (Chonburi - Pataya) has been under
Transportation/Road		3.CONTENTS OF MAJOR PROJECT(S)	construction since Aug. 1990. Another OECF L/A (5,670 million yen) was signed in Sep. 1991.
4.REFERENCE NO.		<m p=""> 1)Trunk highway network (ML projects), 8 Links, total length:288.8km. Project No.ML-1 - ML-8</m>	Dec 1990 OECF loan agreement on Phase I (15,497 million yen)
5.TYPE OF STUDY	M/P+F/S	- The increase of lanes and new highway construction are necessary in many places.	Construction scheduled to commence in FY1992. Sep.1993 OECF loan agreement on Phase II (13,631 million yen)
6.COUNTERPART AGENCY	r	- It will be necessary in the future to develop a road network with inter-city expressways.	
Dept of Highways	_	2)Supplemental road network (IM projects), 23 Links, total length: 718.2km. Project No.IM-1 - IM-23	Of the remaining routes, D/D for ML-9 (Bangkok-Chonburi new highway) is under way with the World Bank finance.
		- It will be necessary in the future to improve 85 routes (2,017km) 3) Rehabilitation (RH projects), 8 Links, total length: 206.8km	(FY1991 Overseas Survey)
		Project No.RH-1 - RH-8 4) Improvement of intersections 48 places	The construction will be completed in 1995.
7.OBJECTIVES OF STUDY	」	The project cost 1) is the ML project and. 2) is the IM project.	(FY1992 Overseas Survey) The construction of ML-9 was commenced in 1992 and is now under way.
Road development		<p></p> <p s="">1)Trunk highway network (ML projects) 7 projects, total length 320.3km</p>	(FY1993 Overseas Survey)
4		ML-1:13.6km, ML-2:23.7km, ML-3:44.6km; ML-4:61.9km, ML-5:50.3km ML-7:40.9km, ML-9:81.7km	No additional information
		2)Supplemental road network (IM projects) 11 projects, total length 297.2km	(FY1994 Domestic Survey) The construction work of the Bangkok-chonburi new highway was
	· · · · · · · · · · · · · · · · · · ·	IM-1:18.7km, IM-2:35.9km, IM-11:40.7km, IM-12:51km, IM-13:17.8km IM-14:25.6km, IM-15:24.7km, IM-16:20.8km, IM-17:19.2km,IM-22:15.9km	commenced in May 1994 and will be completed in 1997.
8.DATE OF S/W	Feb.1987	IM-23:26.9km 3)Rehabilitation (RH projects) 3projects, total length 96.7km	
9.CONSULTANT(S)		RH-2:39.7km, RH-3:17.9km, RH-5:39.3km 4)Improvement of intersections	
Katahira & Engineers In	ternational	Imp. Period: .19911993	
Nippon Koei Co., Ltd.		tript 1 cross.	
		reasibility: FIRP2) FIRP2)	
		TIS ASSUMPTIONS Yes EIRR3) FIRR3)	
10.STUDY TEAM		Conditions and Development Impacts:	
No.of Members 1	.	[Development Impacts] <m p,p="" s="">- Regional development - Efficient functioning of existing highways - Meet increased traffic</m>	
	ar.1989(20 months)	volume Strengthen required linkage between producing places, and markets.	
Torrod Adg. 1567 M	ar.1505(20 months)	- Ease traffic congestion - Prevent highway accidents - Invite private firms to participate in highway construction.etc.	
Total M/M	Ianan Field	[Conditions] <f s=""> Trunk road projects are selected to alleviate traffic</f>	2.MAJOR REASONS FOR PRESENT STATUS
	p*	Development). Provincial road projects are selected to stimulate regional	
85.70	15.70 70.10	development and to provide socio-economic needs of the population. Feasibility analysis was undertaken on 21 projects which the Dept of	Selected routes were consistent with the policy of the Thai Government.
11.ASSOCIATED AND/OR	w.	Highways assigned high priority Economic benefits are taken as the difference in vehicle operating cost and travel time for with and	we that is, and is a second of the second of
SUBCONTRACTED STUD	le type, O/D survey, road	without projects. * The EIRRs for new costruction, improvement of roads and rehabilitation of roads are 19.7% ~ 39.6%, 15.1% ~ 32.5% and 74.2% ~ 150.1% respectively.	n en
inventory survey, borin	g and road surface survey		
12.EXPENDITURE		5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
Total	338,279 (¥'000)	Technique of data collection, analysis and methodology approaches <m p=""> Instruction on how to formulate the M/P, P/S, and survey <p s=""></p></m>	(D, (Q), (I), (I)
Contracted	328,737		

和名中央部道路網整備計画

Compiled Mar.1990

ASE THA/S 208B/88

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thailand 2.NAME OF STUDY Potential Tourism Development for		1.PRESENT	
Southern Region	2.PROJECT COST M/P 1) 1,753,000 Local 526,000 Foreign 1,227,000 Cost Cost Cost	Processing Discontinued or Cancelled	
3.SECTOR Tourism/(Tourism in)General	2) 3) 3.CONTENTS OF MAJOR PROJECT(S)	(Description) (1) TAT has been making preparations to obtain the Cabinet endorsement on the proposed projects. (2) TAT has been coordinating with Royal Forest Dept. and Fine Arts Dept. on the implementation of the projects below proposed for public	
4.REFERENCE NO. 5.TYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY Tourism Authority of Thailand	<pre></pre> - Development of tourism resources - Development of historical sites in Phuket; village tourism: Andaman Historical and Cultural Research Center; National park development; training center - Improvement of tourism infrastructure: Airport; water supply; roads; cruising route improvement urban development; tourism manpower training school - New resort complex: Thai Muang, Khok Kloi beach resort, Phuket Marine center <pre></pre> - Property of the pr	sector investment. - Andaman Historical and Cultural Research Center (Krabi) - Tourism Manpower Training School (Phuket) - Mational Park Training Center (Phuket). (3) With regard to the improvement of other tourism facilities and the development of new resort complexes, TAT will prapare programs after the endorsement by the Cabinet. (FY1993 Overseas Survey) After submission of the M/P, TAT held a seminar among related	
7.OBJECTIVES OF STUDY Formulation of a master plan through 2001 feasibility analysis of priority projects	 1) New resort complex: That Muang international beach resort base (5,000 hotel rooms) 	agencies. A committee to consider potential projects is elected. It consists of related Provincial Authority, TAT, and FAD. May 1993 OECF L/A 4,268 million yen (Regional Development Project) The loan sims infrastructure development for tourism promotion in four regional core cities in the northern, southern and northeastern region. It also includes the D/D and construction of Andaman Historical and Cultural Research Center. The center is to be completed in Sep.1996	
8.DATE OF S/W Jul. 1987 9.CONSULTANT(S) JCP CO., Ltd.		(FY1994 Domestic Survey) No additional information.	
Pacific Consultants International	Imp. Period: .19892001		
No. of Members 16 Period Nov. 1987-Mar. 1989 (12 mont	2) Employment will increase 2 times by 1991, 2.7 by 1996 and 3.7 by 2001 3) Net foreign exchange earnings will increase 2.7 times by		
Total M/M Japan 58.79 21.04 II.ASSOCIATED AND/OR SUBCONTRACTED STUDY Market survey JANDSAT SURVey	Field 1991, 3.7 times by 1996 and 5.5 times by 2001. In addition to the investments mentioned above, it is necessary to strengthen administrative organizations, such as clear demarkation of responsibility between the central and regional governments (especially on environmental administration, and infrastructural development), good coordination between local administrative bodies, expansion of the functions of TAT (planning, coordination and project implementation capability in addition to tourism promotion) and formation of a wider area coordinating committee of Phuket, Phangnga and Krabi Provinces.	2.MAJOR REASONS FOR PRESENT STATUS TAT obtained an OECF loan to implement 72 tourism-related projects by the end year (1991) of the 6th national development plan (L/A in Jan. 1988, 6,252 million yen). However, the implementation of these projects have been considerably behind the schedule. Pending the completion of these projects, TAT plans to apply for another OECP loan on tourism-related projects, including those proposed by this study.	
I2.EXPENDITURE Total 211,77 Contracted 198,91	5.TECHNICAL TRANSFER (¥'000) OJT on the selection of sites for international tourism development, analysis of tourism development potentials, market development and promotion campaigns and programming through intergration with other organizations	3.PRINCIPAL SOURCE OF INFORMATION ①、②、④	

ana na manakaina makaina manakana arawa na kanaka manaka manaka manaka kanaka kanaka kanaka kanaka manaka
Compiled Mar. 1990 Revised Mar. 1995 ASE THA/A 202B/88 II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUDIED PROJECT LOUTLINE OF STUDY ■ Completed or in Progress ☐ Promoting I.COUNTRY Thailand LSITE OR AREA LPRESENT STATUS Four provinces in the eastern Thailand facing or close to the sea () Completed NAME OF STUDY (Chachoengsao, Chonburi, Rayon, and Chanthaburi) O Partially Completed Agricultural Land and Conservation for Delayed or Suspended 1,696,090 Foreign 1.080.203 Integrated Rural Development in the M/P () 2,776,293 Local 2.PROJECT COST Implementing Cost East Cost 2) Discontinued or Cancelled O Processing (US\$1,000) 6,649 4,063 2.587 F/S 1) by 1988 price (Description) 2) 3.SECTOR <M/P> The following plans have been made to strengthen the Agriculture/General capabilities of DLD in implementing the project.
(1) To establish a "Technology Introducing Center" at the DLD main 3.CONTENTS OF MAJOR PROJECT(S) <H/p><F/S> All over Thailand, soil erosion problems caused by random development is serious, 34% of national land is eroded. 47%(716,000ha) of the areas in 4 provinces of the East of Thailand are eroded. The project for Agricultural Land and Conservation for Integrated Rural Development has been formulated. In 16 pilot areas selected from 4 provinces of the East of Thailand, The Feasibility Study for 4 REFERENCE NO. (2) To set up a "Soil and Water Conservation Center" at every regional office of DLD. 5.TYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY The Thai Government intends to implement the 16 pilot projects for Agricultural Land and Conservation for Integrated Rural Development agricultural land conservation, which were worked out through P/S, Ministry of Agriculture and Cooperatives according to the priority orders given to each project. Department of Land Development (DLD) Province Study Area Project Area Planning Area The Thai Government requested the grant aid of the Japanese (sq.km) (sq.km) (sq.km) Government for procuring the machineries for civil engineering and construction as well as those for farming operation which are 5.351 2,200 3,041 Chonburi 4,363 4,363 required to implement the projects. 7.OBJECTIVES OF STUDY 3,552 2,634 Rayong Chanthaburi 3.552 The Japanese Government, in response to the request, has done B/D 6,338 Building up the ability of project execution Total 19,604 8.840 16 The equipments arrived in March 1992. ontents of Projects Soil conservation measures FY1991 Overseas Survey) Agricultural measures: cropping methods, cultivation methods Detail design will be conducted from 1992 to 1994, construction Mechanical measures: terracing systems, terrace channels Trrigation facility: farm ponds and reservoirs from 1992 to 1995 and approximately 136.1 million bahts will be Trrigation facility: financed by the RTG budget. Supporting measures: infrastructures, agro-industry farmers'education, institutional cooperation (FY1993 Overseas Survey) Feb. 1987 8.DATE OF S/W June 1993 - June 1998 The Land and Water Conservation Center Project in the East of Thailand (Project type technical cooperation)

Basides the project above DLD uses the M/P to formulate 'Land and 9.CONSULTANT(S) later Conservation Cener Project. Taiyo Consultants Co., Ltd. DDS estimates total investment cost of 16 Pilot Areas for 99 .1991-.1995 Imp. Period: Sanyu Consultants Inc. 4.FEASIBILITY AND EIRR1) 10.40 FIRRI Feasibility: (PY1994 Domestic Survey) EIRR2) FIRR2) This Project has been implementing following the schedule. ITS ASSUMPTIONS FIRR3) EIRR3) Conditions and Development Impacts: 10.STUDY TEAM [Conditions] 1) The project will be carried out as national project. No.of Members 2) Classification of eroded areas Classification 1.Top-urgent Soil loss(ton/ha/year) Period Sep. 1987-Sep. 1988 (13 months) {more than 50} 2.Urgent (50 - 30)3 Necessary (30-20)(20-5) 4 Normal Total M/M Field 2 MAJOR REASONS FOR PRESENT STATUS 5.Not Necessary Japan (under than 5) 3.Not weessary (under than 3)
3)Pilot areas are chosen from the "Urgent" category
[Development Impacts] 1)creation of employment opportunities,
2)improvement of socio-economic and rural living conditions of farmers, Conservation of agricultural lands, which plays a key role in preservation of the environment, is deemed as one of the measures of 22.98 68.45 3) malitary protection, 4) save and earn foreign currency, 5) improvement of farmers' cooperation, 6) ecological conservation, 7) prevent a change of micrometeorology, 8) water resource conservation and disaster prevention.

In case of 4 model areas EIRR is 8.5-11.6%. If no procurement of top priority. Therefore, it should be implemented urgently, and the 11.ASSOCIATED AND/OR Thai Government requested the assistance through the grant aid SUBCONTRACTED STUDY Topographic surbey Analysis of soil samples construction machines, EIRR is 13.1%. 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE Acceptance of three tainees for in-service training in Japan

和名東部タイ農地保全総合開発計画

Contracted

213,841 (¥'000)

202,533

Organizing seminars at the DLD main office

ASE THA/S 321/88

I. OUTLINE OF STUDY	11. 8	II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thailand 2.NAME OF STUDY Project of the Regional Truck Te	I.SITE OR AREA Bangkok, Chien Rat Yai/Songkh 2.PROJECT COS (US\$1,000)	Mai, Khon Kaen, Nakhon Sawan, Nakh a	on Ratchasima, cal Cost Foreign Cost 4,704 4,076	Completed or in the stratus Completed	_ , .	
3.SECTOR Transportation/Land Transportation 4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Dept. of Land Transport (DLT), Ministry of Communications	Construction of 1. Chaing Mai 2. Khon kaen 3. Hat Yai/Songl Freight Volume H 1. Chaing Mai 2. Khon Kaen 3. Hat Yai/Song	andled 1996 2006 (unit:1000tox 436 667 661 1,107	24,555sq.m 27,246sq.m 49,104sq.m)/year)	requisite condition. And the Troman preparation of 10 years- project in October 1992 when new completed. The Thai government a implementation methods adopted is terminal project. Thus the Thai regional truck terminal until Ba succeded. Establishment of Bangkok truck implemented. For the government priority to this traffic congest established a Truck Terminal Con All of which can contribute to	w Bangkok truck terminal project also intends to apply various n this project for the regional truck i government has suspeneded the ungkok truck terminal project can be terminal project is sure to be of Thailand gives the highest into relieving project, and thus has natruction Committee (secretary; DLT). solve the causes the project had	
7.OBJECTIVES OF STUDY Projection of cargo and determination of scale of regional ternimals 8.DATE OF S/W Oct.1986 9.CONSULTANT(S) Pacific Consultants International	Imp. Period: 4.FEASIBILITY A	reasibility:	.36 F(RR1) .89 F(RR2)	provide the government's land, a operation company. A JICA Export has been attached	made public that it is ready to und to finance the capital of ed to DI/T since Nov. 1988, and now implement both Bangkok and regional	
No.of Members 10 Period Jan. 1987-Jul. 1988 (19 mon	Conditions and thysical distraffic projects enterprises, an cargo was deter DLT. ETR was constructed and Regional tru regional cities, (3) efficiency of facilities a	Development Impacts: tribution was projected for 1987, 199 ons were based on the O/D survey and economic growth projections by NESI nined according to the regular O/D alculated on the assumption that the	l interviews of BB. Composition of survey conducted by terminal in Bangkok be efficient land use in round regional cities, of scale by joint use			
Total M/M Japan 48.30 17.50 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY - Commodity Flow Survey - Traffic Count Survey - Freight Survey 12.EXPENDITURE Total 159,47 Contracted 141,40	30.80 5.TECHNICAL 5.TECHNICAL 5.TECHNICAL 5.TECHNICAL	RANSFER flic survey and the interview survey the JICA training program		2.MAJOR REASONS FOR PRESE 3.PRINCIPAL SOURCE OF INFO		