ASE THA/A 301/77

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
	Thailand al Development Project ct of the Greater Chao	1.SITE OR AREA  West bank tract of the Greater Chao Phraya, center of Ayutthaya Province  2.PROJECT COST  Total Cost  (US\$1,000)  1) 36,200 17,640 18,560  US\$1,000 2)	1.PRESENT STATUS Completed or in Progress ☐ Promoting  Completed  Pantially Completed ☐ Delayed or Suspended  Implementing Processing ☐ Discontinued or Cancelled		
3.SECTOR  Agriculture/General  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENC  Agricultural Land Reform  Agriculture and Cooperation  7.OBJECTIVES OF STUDY	rm Office, Ministry of ative	3)  3.CONTENTS OF MAJOR PROJECT(S)  Irrigation Area: 10,542 ha Circle Embankment: 114.5 km Pump station for irrigation and drainage: 3 station Main irrigation canal/secondary, tertiary canal: 36km/432km Main drainage canal/secondary, tertiary canal: 30km/494km Main street/farm road: 177km/404km Village water supply: 4 places  * Above project costs are in 1985 prices.	(Description)  1979.6.14 OECF L/A signed (E/S, 150 million yen) 1979.6-1982.2 Detail design undertaken (Sanvu Consultants Inc.) 1982.7.16 9th OECF L/A signed (2.65 billion yen) Of which, construction equipment 2.02 billion yen consultation service 390 million yen contingency 240 million yen 1982.6 Construction started 1988.7 Yen loan expired. Construction continued by ALRO.  (FY 1991 Overseas Survey) Construction completed in 1990 by the OECF loan.  OECF Loan: - Circle embankment - Pump stations - Trrigation and drainage canals - On-farm development (tertiary irrigation and drainage canals and farm roads) - Rehabilitation and improvement of rural roads and bridges.  (FY 1993 Overseas Survey) No additional information.		
8.DATE OF S/W 9.CONSULTANT(S) Sanyu Consultants Inc.	0.	Imp. Period: Oct.1977-Sep.1983  4.FEASIBILITY AND Feasibility: EIRR1) 16.00 FIRR1) FIS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)			
10.STUDY TEAM  No.of Members 1  Period Oct.1976-J	0 ul.1977(10 months)	Conditions and Development Impacts:  conditions:  1.Pilot farm of about 500ha to show intensive irrigated agriculture  2.Cultivation of double cropping of paddy (HYV) under the sufficient management of water  3.Dissemination of agricultural technology and establishment of training center  4.Establishment of farmers' organization such as maintenance management and agricultural cooperative  5.Implementation of village development plan including improvement of agricultural environment Development Impacts: Advancement of land use, Increase of agricultural production, Increase of farmers'			
Total M/M  11.ASSOCIATED AND/OR  SUBCONTRACTED STUD	•	income, Reduction of flood damage, Rise in living standards	2.MAJOR REASONS FOR PRESENT STATUS  A part of land for irrigation canal cannot be purchased due to rise in land price in and around Bangkok recently, and construction has not been completed.		
12.EXPENDITURE Total Contracted		5.TECHNICAL TRANSFER OUT Training in Japan (6 trainees)	3.PRINCIPAL SOURCE OF INFORMATION  ①②④		

ASE THA/S 401/77

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  Bangkok Metropolitan Area	1.PRESENT Completed or in Progress Promoting STATUS Completed		
Bangkok Telephone Net Lines	work Project : Junction	2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000)	O Processing		
3.SECTOR  Communications & Broadca:  4.REFERENCE NO.	sting/Telecommunication	3)  3.CONTENTS OF MAJOR PROJECT(S)  Contents Scale 250,000 Pair-km	(Description)  Jul. 1978 OECF loan agreement (1.464 million yen)		
5.TYPE OF STUDY 6.COUNTERPART AGENCY Telephone Organization	راهي. المحا				
7.OBJECTIVES OF STUDY D/D of junction cable n cable networks	end .				
8.DATE OF S/W	Feb.1977	Imp. Period:			
9.CONSULTANT(S) Nippon Telecommunicatio	n Consulting Co., Ltd.	4.FEASIBILITY AND Feasibility: FIRR1) FIRR2) FIRR2) FIRR2) FIRR3)			
		Conditions and Development Impacts:  -To full of demand in site area  -This project come under construction of junction network for 3rd M/P Package 1, Phase 1			
10.STUDY TEAM  No.of Members 13  Period May.1977-Fe	the state of the s				
Total M/M	Japan         Field           29.73         70.77		2.MAJOR REASONS FOR PRESENT STATUS  Telephone demand in the metropolitan area is urgent.		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y	C STRAIN EGA I CED A BIOCED			
12.EXPENDITURE Total Contracted	260, 588 <b>(¥'000)</b> 251, 129	5.TECHNICAL TRANSFER  Many counterparts engineers participated in preparation of D/D	3.PRINCIPAL SOURCE OF INFORMATION  ① ③		

ASE THA/S 303/78

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 Separate System of Me in Bangkok	tropolitan Water Supply	2.PROJECT COST Total Cost Local Cost Foreign Cost  (US\$1,000) 1) 73,121 2)	STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
3.SECTOR Public Utilities/Timber 1 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Metropolitan Water Work 7.OBJECTIVES OF STUDY	F/S	3)  3.CONTENTS OF MAJOR PROJECT(S)  1. Project: Separate System of Metropolitan Water Supply Project surrounding Bangkok  2. Area: The 9 Amephoes surrounding Bangkok city and the related housing and industrial project areas (168sq.km)  3. Target year: Completion set at 2000 (Start to work in 1982)  4. Water source: 8 Amphoes (excluding Nong Khaem) and Bang Chan from groundwater. The others from Central System.  5. Groundwater: 33 Deep Wells built in 9 areas.	(Description) The project was completed by the OECF financing.  Jun.1979 OECF L/A siqued (8,400 million yen) Sep.1984 OECF L/A siqued (10,710 million yen) Completed in 1989 Oct.1985 OECF L/A siqued (2,985 million yen) Completed in 1989 Nov.1988 OECF L/A siqued (4,380 million yen) To be completed in June 1993 Sep.1991 OECF L/A siqued (8,638 million yen) Scheduled to be completed in Aug. 1995 Jan.1993 OECF L/A siqued (16,969 million yen) Sep.1993 OECF L/A signed (5,599 million yen)	
Water Service plan  8.DATE OF S/W	Jan.1977	Imp. Period: .19812000		
9.CONSULTANT(S) Pacific Consultants Int	ernational	4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts:		
10.STUDY TEAM  No.of Members 14  Period May.1977-Ju	1 11.1978(15 months)	<ol> <li>Population density in served area: 1,500/sq.km (minimum)</li> <li>Population in served area: 363,900 (in 2000)</li> <li>House connecton ratio: 75% (in 2000)</li> <li>Daily max. demand: 77,800cu.m</li> <li>Development impacts</li> <li>Supply of clean water</li> <li>Rational system realized         This plan was independent system; but will be advanced in connection with existing Central Water Supply System in Bangkok city.     </li> </ol>		
Total M/M 24,30	Japan         Field           7.20         17.10		2.MAJOR REASONS FOR PRESENT STATUS	
11.ASSOCIATED AND/OR SUBCONTRACTED STUD		STECUNICAL TO ANGLED		
12.EXPENDITURE Total Contracted	143,869 <b>(¥'000</b> ) 44,780	5.TECHNICAL TRANSFER  - Overseas training for counterpart staff - Inspection of water purification plant	3.PRINCIPAL SOURCE OF INFORMATION  ①④	

ASE THA/S 305/78

I. OUTLINE OF S	TUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thaila	and	1.SITE OR AREA Phetchanbun - Chai Badan. Northern Region	1.PRESENT Completed or in Progress Promoting STATUS Completed	
2NAME OF STUDY Phetchabun - Chai Badan High	hway Project	2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1,200	O Panially Completed Delayed or Suspended O Implementing O Processing Discontinued or Cancelled	
3.SECTOR Transportation/Fish Processing  4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Department of Highway  7.OBJECTIVES OF STUDY Road Construction		(US\$1=20Bahts)  2) 3)  3.CONTENTS OF MAJOR PROJECT(S)  Three Alternatives of route: I Improvement of local community II New land development III Improvement of transportation  1. Optimal route (I+II) Tha Maduk - Rang Yoi - Si Thep - Wichian Buri - Sap Bon - Nong Daeng - Pak Bot - Noen Sadao - Khok Charoen - Yang Lat - Tham Nam Bang - Nam Ron - Phetchabun  2. Road length 1) Improvement 130.1 km (85%) 2) New construction 21.2 km (15%) Total 151.3 km 3. Pavement type 1) SBST (asphalt) 94.2 km (62%) 2) Laterite 57.1 km (38%) Total 151.3 km 4. Road width 1) Formation width 9.0 m 2) Pavement width 5.5 m	(Description)  1) D/D completed by DOH 2) OECF loan(E/N 1980 July; 8,160 million yen) 3) Construction from June 1981 to September 1983  (FY 1991 Overseas Survey) No additional information.  (FY 1992 Overseas Survey) 1,366 million yen was appropriated for this project from the OECF loan. The total cost for the project was 171.42 million bahts.  The construction was started in June 1981 for the Yang Lat-Phechabum route and was completed in September 1981 for Sithep-Wichian Buri route. The total length was 149.2 km.	
8.DATE OF S/W Feb.19	778	Imp. Period: Apr.1980-Dec.1982		
9.CONSULTANT(S) Nippon Koei Co., Ltd. Katahira & Engineers Internation	onal	4.FEASIBILITY AND THE Feasibility: EIRR1) 20.40 FIRR1) EIRR2) FIRR2) FIRR2) EIRR3) Conditions and Development Impacts:		
10.STUDY TEAM  No.of Members 12  Period Mar.1978-Mar.1979	9(9 months)	Conditions: Traffic forecast 1) Passenger traffic forecasted by trip rates obtained from a home interview survey and projected population increase. 2) Freight traffic forecasted by transportation demand of agricultural products.  Development impacts: 1. Benefits (million baht) 1983 1989 1997 1) Road users' cost saving 47.8 55.3 62.4 2) Incremental net added value of agricultural products 15.2 51.0 46.3		
Total M/M Japa 44.33 26.3  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	*	3. Saving transportation cost 4. Increase in farmers' income 5. Development of better transportation 6. Reduction of running cost	2.MAJOR REASONS FOR PRESENT STATUS  (1) Big Development effects (2) Favorable financial status (3) High priority (4) Strong promotion by department of Highway	
12.EXPENDITURE Total Contracted	108,742 (¥'000)	5.TECHNICAL TRANSFER  (1) OJB (2) JICA training (3) Joint reporting	3.PRINCIPAL SOURCE OF INFORMATION  ①②③④	

ASE THA/S 304/78

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Rural Long Distance P	Thailand Public Telephone Service	1.SITE OR AREA  Each place of the country  2.PROJECT COST  (US\$1,000)  (US\$1=180Yen)  Total Cost Local Cost Foreign Cost 330,390	O Processing		
3.SECTOR  communications 6 Broadcas  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  Telephone Organization of  7.OBJECTIVES OF STUDY  To recommend the optimum  TOT.	F/S	3.CONTENTS OF MAJOR PROJECT(S)  1. Installation of telephones Long distance telephone circuits, including public telephones, in major rural districts without telephones for the purpose of improving the telephone service in 469 rural areas. Telephone exchanges in 18 districts in 1989, and in 187 more districts in 1994.  2. Transmission system: Terrestrial transmission system UHF (900 MHz band)  3. Modulation system No much difference between FDM and PCM system from technical and economic viewpoints  4. Equipment shelter Communication equipment Staton inclusive of power plant: This is to reduce construction cost and civil work period to the possible minimum.  5. System maintenance The existing maintenance organization and practices can be applied to each Maintenance Center by increasing maintenance staffs to some extent when this project is completed. At the same time, it is desirable to introduce centralize supervisory system at each Maintenance Center so that it can have troubles at supervised stations under its control automatically recorded.			
8.DATE OF S/W 9.CONSULTANT(S) Nippon Telecommunication	Jul.1979 n Consulting Co., Ltd.	Imp. Period: .19811982  4.FEASIBILITY AND Feasibility: EIRR1) 11.30 FIRR1) 18.2  TIS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts:  Conditions: 1. Forecasted circuit requirements 1984 1989 1994	22		
10.STUDY TEAM  No.of Members 6  Period Aug. 1978-Ma	ar.1979(8 months)	2,513 3,763 8,218  2. Alternative proposal  1) Two terrestrial radio system  2) One domestic satellite system  Development impacts:  1. Connection to the national network  2. Increase in the quality of telecommunication  3. Public telecommunication services for 469 sites where telephone service is unavailable.			
Total M/M  11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Japan Field 27.03		2.MAJOR REASONS FOR PRESENT STATUS  High priority: The project was realized by the strong request from the King.		
12.EXPENDITURE Total Contracted	75,078 <b>(¥'000)</b> 79,180	5.TECHNICAL TRANSFER  (1) Trainee acceptance:     2 engineer(TOT) invited to Japan (2) On the Job Training(TOT counterparts)	3.PRINCIPAL SOURCE OF INFORMATION  ①②		

Compiled Mar. 1986 Revised Mar. 1992

ASE THA/S 302/78		Revised Mar.1992	
I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Thailand 2.NAME OF STUDY Pattaya Tourism Development	1.SITE OR AREA Pattaya, Ko lan Island	1.PRESENT	
	2.PROJECT COST	O Implementing O Processing Discontinued or Cancelled (Description)	
3.SECTOR Tourism/(Tourism in)General	3.CONTENTS OF MAJOR PROJECT(S) -Infrastructure -Water supply and sewerage	The project is under construction with government funds.  (FY 1991 Overseas Survey)  The Thai Government (National Economic and Social Development Board)	
4.REFERENCE NO.  5.TYPE OF STUDY F/S  6.COUNTERPART AGENCY	-Water drainage system -Solid waste management -Road, power, communication -Port	applied for an OECF Loan in 1979 but was no accepted. A new local administrative office was established according to the new development plan and the new detailed design prepared by the Department of Town and Country Planning.	
Dept. of Tourism		The project has been revived in a new JICA study "Pattaya Tourism Development."	
7.OBJECTIVES OF STUDY Establishment plan of infrastructure for tourism			
8.DATE OF S/W Nov.1976	Imp. Period: .19771996		
9.CONSULTANT(S) Pacific Consultants International Nippon Tetrapod Co., Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS  Reasibility: EIRR1) 26.00 FIRR1) EIRR2) FIRR2) FIRR3)		
All points and the second seco	Conditions and Development Impacts:  Private investment has been made in tourism industry while public sector has not invested; therefore, inappropriate development continues and tourism resource has not been utilized. This project aims to utilize this resource and contribute to tourism development.		
No.of Members 12			
Period Dec.1976-Dec.1977(12 months)			
Total M/M         Japan         Field           118.13         88.73         29.4	·	2.MAJOR REASONS FOR PRESENT STATUS  - Good financial condition - Righ priority	
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY			
12.EXPENDITURE	5.TECHNICAL TRANSFER  Overseas training for 6 trainees	3.PRINCIPAL SOURCE OF INFORMATION	

和名 パタヤ地区基盤整備計画

ASE THA/S 101/79

Compiled Mar.1986 Revised Mar.1993

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS	
1.COUNTRY  2.NAME OF STUDY  Bangkok Suburban Tran	Thailand sportation Project	1.SITE OR AREA  Bangkok Metropolitan Area  2.PROJECT COST	1.PRESENT STATUS	☐ In Progress or In Use ☐ Delayed ☐ Discontinued
3.SECTOR Transportation/Railway		(US\$1,000) Total Cost Local Cost Foreign Cost (US\$1,000) 1) 834,400 (US\$1=260Yen) 2)  3.CONTENTS OF MAJOR PROJECT(S)	Development Plan. No progress was (FY 1991 Overseas	made in upgrading the railway service in downtown Bangkok.  Survey)
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Expressway and Rapid Tr Authority (ETA), Royal S	ansit	Formulation of Master Plan for large scale transportation for Bangkok and its surrounding areas.  Basic policy is to make the utmost use of existing railway system as the transportation means for people commuting to work.  Main components are: Suburban lines(new construction) 6 lines(11 segments) total length 102.8km Improvement of existing lines	National Economic (FY1993 Overseas Because of the f - Government gave in town. - The existing ra	following two reasons, the project didn't continue.  The first priority to solve traffic problems  Tilway system in the suburbanarea could be used.
Thailand (SRT) 7.OBJECTIVES OF STUDY Transportation Plan		(double track, new stations, signal and communication) total length 151 km Rolling stock(Year 2000) Suburban line 756 or 478 (depending on fare) Existing national railway 318	SKI OFFICIALS SA	id that no new lines in Bangkok suburban were to be built.
8.DATE OF S/W  9.CONSULTANT(S)  Pacific Consultants Int	Jul.1978 ernational	4.CONDITIONS AND DEVELOPMENT IMPACTS  This project is expected to mitigate trettic cagestin in inner city and suburban area in BANGKOK> Furthermore, utilization of existing rail line is also expected to contribute to improve financial condition of SRT, and to contribute to induce urban structure of Bangkok to appropriate direction with corridor development.		
10.STUDY TEAM  No.of Members 7  Period Oct.1978-Au	ıg.1979(11 months)	(FY 1993 Domestic Survey)	÷	
Total M/M 46.57 11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Japan         Field           35.50         11.07		This project is	SONS FOR PRESENT STATUS  an extension from downtown to suburban areas. Therefore, F/s conducted unless progress is made on projects for the
12 EXPENDITURE Total Contracted	90,378 <b>(¥'000)</b> 85,377	5.TECHNICAL TRANSFER Training in Japan	3.PRINCIPAL S ①②	OURCE OF INFORMATION

和名首都圈交通計画

ASE THA/A 101/79

Compiled Mar.1990 Revised Mar.1993

I. OUTLINE	OF STUDY	II. S	UMMARY OF	STUDY RESU	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY  2.NAME OF STUDY  Irrigated Agricultura	Thailand al Development in the	1.SITE OR AREA	Mae Klong River Basin	: area 490.000ha		1.PRESENT STATUS	In Progress or In Use ☐ Delayed ☐ Discontinued
Greater Mae Klong Riv	er	(US\$1,000)		1,300 264,78		(Description)	study was conducted in 1979 on Kamphaeng Saen irrigation and elopment, but the project was not implemented, partly owing to
3.SECTOR				5,300 171,18	0 114,120	the change of gov	vernment policy.
Agriculture/General	•	3.CONTENTS OF MA		<u>.</u>		(FY 1991 Overseas	s Survey) Development Program is being undertaken and will be finished
4.REFERENCE NO.		1.Short-term development 1) Improvement of field	d of 185.900ha				ew study may be necessary in the near future.
5.TYPE OF STUDY	M/P	<ol> <li>Repair of irrigation</li> <li>Long-term development</li> </ol>	plan	of 1,082km			
6.COUNTERPART AGENCY	Y	<ol> <li>Improvement of field</li> <li>Repair of irrigation</li> </ol>	n and drainage canals	of 56km			
Ministry of Agriculture	and Cooperatives	3) Construction of irr	-				
***		* Cost 1) is for the shi development plan exclud			or the long-term		
2 ODIFCEMATO OF OTHER		4					•
7.OBJECTIVES OF STUDY	٠						
		•					
·							
					•		
O DATE OF CAU	Jul.1977	-					
8.DATE OF S/W	JUI.1977	4,CONDITIONS AND	DEVELOPMENT IM	IPACTS			
9.CONSULTANT(S)		1. The production of rice					
Sanyu Consultants Inc.		(total amount 2,400.0) 2.The production of Sug-	00t) arcane will be 1.3 tim	es in 30 years		ļ	
		* Of 2,400,000t of ric	00t) ce production, 1,000,0	000t will be			
		possible to be expo- 3.EIRR 26.5%	rted.				
10 07 ( D3/ 77 - 11/		-					
10.STUDY TEAM							
No.of Members 20							
Period Dec.1977-Ma	ar.1980(28 months)						
			•		•	2 MAIOR REA	SONS FOR PRESENT STATUS
Total M/M	Japan Field					ZJAINGON KEN	SONOTOK I KESEKI OTATOO
130.19	45.83 84.36						
11.ASSOCIATED AND/OR							
SUBCONTRACTED STUD	<u>Y</u>						
			·	·			
12.EXPENDITURE		5.TECHNICAL TRAN	SFER			3.PRINCIPAL S	SOURCE OF INFORMATION
Total	346, 684 <b>(¥</b> '000)	OUT				00	The Control of the Co
Contracted	242,550					· · · · · · · · · · · · · · · · · · ·	

和名 メクロン川マスタープラン

{M/P,Basic Study,Other}

ASE THA/S 306/79

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY 2.NAME OF STUDY Nong Bua - Ban Lam Ch	Thailand ni Bon Highway Project	1.SITE OR AREA  Nakkon Sawan Prefecture, Chiyaphum Prefecture  2.PROJECT COST  Total Cost Local Cost Foreign Cost (US\$1,000) 1) 30,600 17,300 13,300	1.PRESENT STATUS Completed or in Progress  Promoting Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled		
3.SECTOR Transportation/Fish Proce 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Department of Road Mini 7.OBJECTIVES OF STUDY Provincial road improve	F/S Y stry of communication	3) 3.CONTENTS OF MAJOR PROJECT(S)  Three alternatives of route: I Nong Bua-Wang Wat II Wang Nat-Tha Pong III Tha Pong-Lup Pho  1. Objective: The project aims at accelerating socio-economic development in rural areas and, at the same time, at providing an inter-provincial road, in an east-west direction, to supplement the existing highway network which are mainly of radial type connection with Bangkok.  2. Optimal route: Nong Bua-Nong Ngu Luam-Sap Bon-Wang Wat-Tha Pong-Nong Bua Rave-Lup Pho 3. Road length 1) Improvement: 41.9km 2) Newconstruction: 112.8km total 154.7km 4. Road width 1) Formation width: 9.0-10.0m 2) Pavement width (SBST): 5.5-6.0m 5. Surface treatment 1) SBST: 105.0km (68%) 2) Soil aggregate surface: 49.7km (32%)	(Description)  1983 Sep. OECF loan agreement (5,770 million yen)  1984 Dec. D/D completed  1986 Feb. Construction commenced  1988 Aug. Construction completed  (FY 1991 Overseas Survey)  No additional information.  (FY 1992 Overseas Survey)  2,517 million yen was appropriated for the project from the OECF loan. The total cost for the project was 348.70 million bahts.  The total length was 162.2 km.		
8.DATE OF S/W  9.CONSULTANT(S) Nippon Koei Co., Ltd.	Jul.1978	Imp. Period: Apr.1981-Dec.1983  4.FEASIBILITY AND Feasibility: EIRR1) 21.70 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)			
10.STUDY TEAM  No.of Members 1:  Period Jun.1979-Fe	1	Conditions and Development Impacts:  Conditions:  1. The method of optimum route salection Evaluation of the alternatives was made mainly according to the following three factors: 1) Construction cost 2) Route length which reflects on the road users' costs 3) Availability of newly cultivatable land along the route which reflects the magnitude of agricultural benefits.  2. Uncultivated land available for future development: 286,000 rai  3. Estimation of passenger traffic was based on the projected population and the person trip rate model derived from the home interview survey.  Development impacts:  1. Benefits (million Baht) Road users' cost saving 113.6 130.7 161.6			
Total M/M 43.40 11.ASSOCIATED AND/OR SUBCONTRACTED STUD Topographic Survey Traffic Survey	Japan     Field       18.50     24.90	Agricultural development benefit 1,2 58.8 55.4 2. Agricultural development	2MAJOR REASONS FOR PRESENT STATUS  - large development impact - qood linkage with other major road - high priority - effective administration		
12 EXPENDITURE Total Contracted	104,520 <b>(¥'000)</b> 103,547	(1) OJT: Discussion about route selection. Traffic forecast and development benefits. (2) Trainee: 1 engineer	3.PRINCIPAL SOURCE OF INFORMATION  10234		

ASE THA/A 302/79

Compiled Mar.1990 Revised Mar. 1994 III. PRESENT STATUS OF STUDIED PROJECT

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS			III. PRESENT STATUS OF STUDIED PROJECT				
2.NAME OF STUDY Kamphaeng Saen Irriga	Thailand ted Agriculture n the Mae Klong River	1.SITE OR AREA  Kamphaeng Saen District area 28,000ha, populati  2.PROJECT COST		er Basin, wester Total Cost	rn part of Centi	ral Thailand, Foreign Cost	1.PRESENT STATUS	<ul><li>☐ Completed or in Progress</li><li>☐ Completed</li><li>☐ Partially Completed</li><li>☐ Implementing</li></ul>	Promoting  Delayed or Suspended
Basin	The Mae Riong River	(US\$1,000) US\$1=230Yen	1) 2)	32,705	18,710	13,995	(Description)	O Processing	☐ Discontinued or Cancelled
3.SECTOR Agriculture/General 4.REFERENCE NO, 5.TYPE OF STUDY 6.COUNTERPART AGENCY RID (Royal Irrigation De Agriculture and Cooperat 7.OBJECTIVES OF STUDY Making an integral agriculture of the Cooperate of the C	epartment), Ministry of cives	3.CONTENTS OF MAIO  - Improvement of irrigatevelopment project it  - Improvement of termin ditches, farm roads,  The project area is estable and Proposed irrigation artifarming area. Propose consolidation and related Renewaling canal: 4  - Improvement of drainflood preventation, and consolidation:	tion and drainag h Mae Klong Rive al facilities su etc.: 16,380 ha timated about 28 located at the n ea is 17,200ha w d terminal irriq ted supporting f 8km age: 176km road: 24.8km	r Basin.: 16,38 ch as irrigation	on and drainage the east part of Pathom. of available cluding land		The proposed Government.  (FY 1991 Overse No additional  (FY 1993 Overse Due to the chapriority of the priority of the project to be important targe higher priority	project was suspended owing to as Survey) information.	e government of Thailand, the is no possibility of the most agriculture secotr, however
8.DATE OF S/W 9.CONSULTANT(S)	.0	pr 2	Feasibility:	EIRRI)	27.00 FIR	-			
Sanyu Consultants Inc.		Conditions and Deve	Yes/No lopment Impacill be increased acilities.	l from 13,400 h		R3)			·
No.of Members 10 Period Jan.1979-Oc		The land use rate will prevention of paddy fie prevention embankment.  Agricultural productive facilities.  Especially a plan for lead to raise income of	eld of 5,300ha the and improvement with will be improved introduction of	erough construct of terminal fac- coved by various market - orient	tion of flood cilities. s techniques and				
Total M/M 23.87 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 19.50 4.37			(FY 1993	3 Domectic Surve	y)	(FY 1991 Overse The improveme	ent of the existing irrigation fa eveloment strategies, but the pro	cilities continues to be one of
12.EXPENDITURE Total Contracted	94,709 <b>(¥'000</b> ) 88,926	5.TECHNICAL TRAN			·		3.PRINCIPAL ©23	SOURCE OF INFORMATION	

和名 メクロン川流域カンパンセンかんがい農業開発

{F/S,D/D}

ASE THA/S 307/80

I. OUTLINE OF STUDY			II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY  2.NAME OF STUDY  Bangkok Urban Truck 1  Project	Thailand Terminals Constru		1.SITE OR AREA  Bangkok metropolitan area  2.PROJECT COST  (US\$1,000)  (US\$1,000)  (US\$1= 20 Bahts)  Total Cost Local Cost Forcign Cost  2)	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
3.SECTOR Transportation/Land Trans 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC Department of Land Trans 7.OBJECTIVES OF STUDY Traffic plan	F/S Y		3)  3.CONTENTS OF MAJOR PROJECT(S)  Description Scale Truck terminal Cargo handling: 12,000 t/day Parking Public parking Maintenance facilities Warehouse district	(Description)  Detailed design was partially undertaken by local consultants. In June, 1987 Ministry of Transport and Communication has approved the commencement of the construction.  Frivate investment have been promoted for the construction of truck terminals. So far, contracts have been signed on two of the four sites.  Due to rapid urbanization, some sites proposed for terminals have been already used for other purposes.  JICA is conducting a restudy of Bangkok urban truck terminals since Dec. 1991, in which suggestions will be made to expedite the project implementation.  (FY 1991 Overseas Survey)  Project scale was reduced from four terminals to three.	
8.DATE OF S/W 9.CONSULTANT(S) Pacific Consultants Int Nittsu Research Center			Imp. Period:  4.FEASIBILITY AND Feasibility: EIRR1) 10.00 FIRR1)  TIS ASSUMPTIONS No EIRR2) FIRR2)  EIRR3) FIRR3)		
10.STUDY TEAM  No.of Members 9  Period Aug. 1979-Ma		hs)	Conditions and Development Impacts:  Condition: Target year 2000  Project road includes intra urban tollway, circumferencial road, outer ring road Development Impacts:  -Increase of profit to the owner by regular operation -Decrease in accidents by supplying welfare facilities to drivers  -Increase in operation time by improving inspection and maintenance		
Total M/M	Japan	Field		2.MAJOR REASONS FOR PRESENT STATUS	
32.60 11.ASSOCIATED AND/OR SUBCONTRACTED STUD	22.90 Y	9.70	S COLON TO LANGUAGO		
12 EXPENDITURE Total Contracted	83,16 79,34	69 <b>(¥'000</b> )	5.TECHNICAL TRANSFER  Technical advice on demand forecasting, traffic survey, and economic analysis.	3.PRINCIPAL SOURCE OF INFORMATION  ©2	

#### ASE THA/A 303/80

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY  2.NAME OF STUDY  Mae Wang-Kew Lom Irr  Development Project	Thailand igated Agriculture	1.SITE OR AREA  Lampang City, Lampang Province, northern part of Thailand area 22,700 ha  2.PROJECT COST  Total Cost (USS1,000) 1) 34,880 19,506 15,374 USS1=20B in 1979  Total Cost 1) 34,880 19,506 15,374	O Processing	
3.SECTOR Agriculture/General  4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE RID (Royal Irrigation Agriculture and Cooper  7.OBJECTIVES OF STUDY	Department), Ministry of atives	3)  3.CONTENTS OF MAJOR PROJECT(S)  Irrigation area: 22,700ha Main irrigation canal: 100.12 km Tributary irrigation canal: 79.65 km Main drainage canal: 240.77 km Field improvement: 15,400 ha  - Above costs are in 1979 prices.	At the time of the JICA study, the Thai Government enacted the Law of Agricultural Infrastructure Improvement, and was vigorously promoting the improvement of agricultural infrastructure to expand the area of double cropping.  However, the proposed project was not implemented, partly because it presupposed farmers' sharing of the development cost, which turned out to be much higher than expected, and partly because the external debts of the Thai Government increased.  (FY 1991 Overseas Survey) No additional information.  (FY 1993 Overseas Survey) E/S by OECF loan (L/A in 1982, July 16 of 430 million USD) was conducted in 1982, however due to changes in development policy of the government of Thailand and the suspension of construction of Kuu Khong Ma Dam which was supposed to be one of the water source for the project, the project was not implemented yet.	
1	Feb.1979 0 far.1980(9 months)	Imp. Period: Oct.1986-Sep.1987  4.FEASIBILITY AND Feasibility: EIRR1) 27.10 FIRR1) FIS ASSUMPTIONS  Yes EIRR2) 25.30 FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts: Considering the production of paddy crop is relatively high, promotion of production during dry season is planned by utilizing the water of Kiv Lom Dam. To dethis field improvement should be implemented.  Development Impacts: Large increase of benefit by double cropping through effective use of existing water resource is expected.	0	
Total M/M 47.04  11.ASSOCIATED AND/OR SUBCONTRACTED STUI  12.EXPENDITURE Total Contracted	,	5.TECHNICAL TRANSFER  Training of and technical transfer to staffs of RID in Thailand and Japan.	2.MAJOR REASONS FOR PRESENT STATUS  There are no plans to revive the project because of the reasons noted above.  3.PRINCIPAL SOURCE OF INFORMATION  0.233	

ASE THA/S 402/80

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUD			UDIED PROJECT		
1.COUNTRY	Thailand	1.SITE OR AREA			1.PRESENT	Completed or in Progress	☐ Promoting
2.NAME OF STUDY  Bangkok Telephone Net  Cable Network	work Project: Local	Bangkok Metropolitan Area  2.PROJECT COST	Total Cost Local Cost F	Foreign Cost	STATUS	<ul><li>Completed</li><li>Partially Completed</li><li>Implementing</li></ul>	Delayed or Suspended
Capte Network		(US\$1,000) 1) 2)		-	(Description)	O Processing	Discontinued or Cancelled
3.SECTOR		3) 3.CONTENTS OF MAJOR PROJECT(S)	s proposation of the contract	·	1987 Jul. OECF	L/A completed for extending	
Communications & Broadca	sting/Telecommunication	Detailed design of local cable netwo     (Pronchit, Chinwatana, Packrett, Ram	ck for five exchanges		0010		
4.REFERENCE NO.		2) Additional detailed designs for thre Labrana and Ekachai)	e exchanges (Kurontoi,				
5.TYPE OF STUDY	D/D						
6.COUNTERPART AGENC	overali .						
Telephone Organization	of Thailand						
7.OBJECTIVES OF STUDY							
Detailed designs for 8	telephone exchanges						
		: •					
			•				
8.DATE OF S/W	Jul.1978	Imp. Period:					
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: TIS ASSUMPTIONS Yes/No	EIRR1) FIRR1) EIRR2) FIRR2)				
Nippon Telecommunicatio	n Consulting Co., Ltd.	IIS ASSUMPTIONS Yes/No	EIRR3) FIRR3)				ĺ
		Conditions and Development Impac	is:				
		Detailed designs are based on the progr Plan. Five exchanges correspond to Package I		1			
10.STUDY TEAM		Package II of Phase 1.	or hugge 5 and futes additional ex	ccianges co			
			*				
No.of Members 12				ĺ			j
_	un.1979(22 months)	·					
Oct.1979-Au Total M/M	****				2 MATOD DE	ASONS FOR PRESENT STATU	ie l
107.79	Japan         Field           49.63         59.16				Urgency of the		
11.ASSOCIATED AND/OR	43.03 33.10				ordency of the I	AGDIER	
SUBCONTRACTED STUD	Y						·
	SPACE .						
· · · · · · · · · · · · · · · · · · ·		5.TECHNICAL TRANSFER					
12.EXPENDITURE	ATA 2AA 88AAM	OJT for counterparts	•			SOURCE OF INFORMATION	
Total	278,789 (¥°000)				030	the second secon	<del></del>
Contracted	277,097						

ASE THA/A 304/81

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		Right bank of PaSak River, SaraBuri Province	STATUS Completed		
Kaeng Khoi-Ban Mo Pu	mping Irrigation Projec		Partially Completed Delayed or Suspended		
:		2.PROJECT COST   Total Cost   Local Cost   Foreign Cost   40,700   24,500   16,200	☐ Implementing ☐ Discontinued or Cancelled		
		(US\$1,000) 1) 40,700 24,300 10,200	W Troccomy		
3.SECTOR		3)	(Description)		
Agriculture/General		3.CONTENTS OF MAJOR PROJECT(S)	The detailed design was undertaken by Sanyu Consultants Inc.and Chuo Kaihatsu Corporation during the period from July 1984 to June 1985, with the		
4.REFERENCE NO.		The objective of the project is to encourage the agriculture in the project area through stable irrigation water supply to the entire beneficial area together with	E/S loan from OECF. However, the project implementation was delayed, because the adjustment of water rights (with beneficiaries of the waterway between		
5.TYPE OF STUDY	F/S	introduction of the dry season crop as much as possible.  Proposed cropping plans are about 14,000ha in wet season and 2,800ha in dry season	Chainst and PaSak) was not settled.		
6.COUNTERPART AGENC		within limited water resources allocation.	July 1982 CECF loan agreement signed (E/S, 190 million yen)		
<u> </u>	Department), Ministry of	Major facility of the project is summarized as follows:	(FY 1991 Overseas Survey) No additional information.		
Agriculture and Cooper		— Main pumping station: 1,000mm x 560km,Q≈17.5cu.m/sec, H=16.5m, 7 units  — Irrigation canal : 148km including lateral canals  — Drainage canal : 22km	(FY 1993 Overseas Survey)		
		- Demonstration farm : 260ha	D/D by OECF Loan (L/A on 1982 July 16 of 190 million USD) was conducted during July 1984 to June 1985, however, due to the suspension of Nakhon Nayok		
7.0BJECTIVES OF STUDY			Dam construction of Pasak River delayed the implementation of the project. The government of Thailand is planning to initiate construction of Nakon Nayok		
Feasibility study on i development project	rrigated agricultural		Dam to solve serious water shortage in thesee days. Once the dam construction is initiated, the project proposed by JICA Study can be implemented.		
development project					
o DATE OF CAV	Feb.1981		<u>.</u>		
8.DATE OF S/W	rep.1981	Imp. Period: .19331988  4FEASIBILITY AND Fracibility: EIRRI) 16.90 FIRRI)	4		
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRRI) 16.90 FIRRI)  ITS ASSUMPTIONS Yes EIRR2) 14.30 FIRR2)			
Sanyu Consultants Inc.		EIRR3) FIRR3)			
		Conditions and Development Impacts:			
		[Conditions] - Available water resources of the project are quite limited due to runoff discharge fluctuation of the Pasacu river until construction of storage dam on the river.			
10.STUDY TEAM		- Extension and education of the beneficial farmers are very important role for introduction of irregated agricultural development.			
		- Urgent resolution of the available water resources for the project - Detailed design of the project has been finished by the government of Thailand			
	.0	supported by OECF engineering service loan.			
renod Jun, 1981-3	Jan.1982(8 months)	[Impacts] -Planting of 100% in rainy season and 20% in dry season will be done by completion			
Total M/M	Ianan Field	of irrigation facilities to increase agricultural profit.	2.MAJOR REASONS FOR PRESENT STATUS		
		culture technique will be done in demonstration farm.			
37.55		*EIRR calculated (14.3%) includes on-farm.	Although RID and farmers in the project area want to implement the project, the problem on water rights delayed the implementation.		
11.ASSOCIATED AND/OR SUBCONTRACTED STUL					
	áriod	(FY 1993 Domestic Survey)			
		5.TECHNICAL TRANSFER			
12.EXPENDITURE		Transfer to staffs of RID in Thailand and Japan was done.	3.PRINCIPAL SOURCE OF INFORMATION		
Total	96,370 <b>(¥'00</b> 0	<b>)</b>	0233		
Contracted	90, 677				

#### ASE THA/S 202B/82

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Thailand 2.NAME OF STUDY Bangkok Sewerage System Project	I.SITE OR AREA  Bangkok City and Thomburi area located at the other side of Chao Phaya river. < M/P> Bangkok City 2.PROJECT COST M/P 1) 116,160 Local 69,100 Foreign 47,060 (US\$1,000) Cost Cost (US\$1,000) 23,200	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Public Utilities/Sewerage  4.REFERENCE NO.  5.TYPE OF STUDY M/P+F/S  6.COUNTERPART AGENCY Department of Drainage and Sewerage, BMA  7.ORIECTIVES OF STUDY Planning on the countermeasure of pollution and	2) 3) 3.CONTENTS OF MAJOR PROJECT(S)  M/P> Bangkok City has some problems such as flooding in rainy season and water pollution of river in dry season. Several studies on those problems have been carried out. This study was to review the previous study reports and to make new master plan in order to obtain the practical plan.  Scope of the study is limited for sewerage system planning.  CF/S> Project area : 970 ha Intercepting sewer : d 3,000-2,400mm for L-7,100m Combined sewer : d 8,500-2,000mm for L-1,300m Intermediate Pumping Station: 3 stations,Q-13-24cu.m/min Plant : Q-135,000 cu.m/day Inf.BOD- 160 mg/l Eff.BOD- 60 mg/l	(Description) <pre> </pre> (M/P> A feasibility study was subsequently implemented and Japanese experts went to Thailand for technical assistance.  (FY1993 Overseas Survey)     DDS had reviewed the M/P since 1990 and formulated following 5 projects.     Si Praya: 92-93, BMA budget (284 mil, Baht)     Yannawa: 94-96, BMA (25%) and Central Government (75%)
flood. F/s on first phase program, as recommended in M/s.  8.DATE OF S/W Mar.1979  9.CONSULTANT(S) Nihon Suido Consultants Co., Itd.	[Modified aeration process: grit chamber, aeration tank, final sedimentationbasin, basin, chlorination chamber, digester, etc.)  Imp. Period: .19841988	treatment plants (the capacity: 30,000 cu.m/day and 25,000 cu.m/day). In late 1990, BMA was preparing a request to Japanese assistance on another treatment plant with a capacity of 60,000 cu.m/day.  (FY 1991 Overseas Survey)  The Department of Drainage and Sewerage has modified the study, by rearranging the Bangkok Sewerage Area into 6 areas. Detailed design is under implementation for each area and the implementation will begin before long.
10.STUDY TEAM  No.of Members 10  Period Aug.1979-Feb.1980(29 months)  Jul.1980-Jul.1982	Imp. Period: .19841988  4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts:  4.P> Study area is 37,000 ha, same as previous CDM plan, which was divided into 10 sewerage districts. Separate systems have been fundamentally adopted for the system. In central area of the city, however, a combined system has been temporarily adopted. Treatment plant is located at the vacant lot of the Tabacco Public Corporation. Treatment method is modified aeration system.	
Total M/M Japan Field	Te/s> In 1982, the celebration of the 200th anniversary of Bangkok as Capital of Thailand, sewerage project was focussed to cope with the water quality problem of canal in the city.  Sewerage project and Water Disposal Plan were made as a pair.  F/S was conducted for the area selected by the investment efficiency as recommended in M/P. Development impacts are expected with pollution prevention of canal and decrease of inundation problem, which area, however, can not be scaled quantitatively.	2.MAJOR REASONS FOR PRESENT STATUS  A feasibility study was subsequently implemented and Japanese experts went to Thailand for technical assistance.
12.EXPENDITURE  Total 397, 120 (¥'000 377, 556	5.TECHNICAL TRANSFER  (1) Carried out training program for two persons (2) Employment of the local consultant for land survey (3) Equipment granted and instructed for water quality tests	3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASE THA/S 203B/82

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Bangkok Solid Waste M	Thailand Lanagement	1.SITE OR AREA City of Bangkok	1.PRESENT STATUS	☐ Completed or in Progress ■ Promoting ☐ Completed ☐ Partially Completed ☐ Delayed or Suspended		
enterprise de la constitución de		2.PROJECT COST   M/P 1)   17,248 Local   8,667 Foreign   Cost   Cost		<ul> <li>○ Implementing</li> <li>○ Processing</li> <li>□ Discontinued or Cancelled</li> </ul>		
3.SECTOR Public Utilities/Urban Sa	anitation	2) 3) 3.CONTENTS OF MAJOR PROJECT(S)	measures propos The Phase I	expert was sent to BMA in 1983 - 1989, and the short-term ed by the study were implemented during the period.  I study was underteken during FY1989 - FY1992 bu the JICA team.		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY	M/P+F/S	<pre><m p="">The master plan to improve waste disposal system by the year of 2000 and 67 immediate action programmes. (1) The master plan includes construction and introduction of; 5 composting plants, 2 incineration plants, 3 final disposal sites,1,190 collection vehicles, 88 road sweepers, 5 river cleaning boats,</m></pre>	Another Japanese expert was posted to EMA.  (FY 1991 Overseas Survey)  Most of the short-term improvement plan recommended in the original master plan was already been brought into practice, such as introduction of compact trucks, collection by boats, uniform supply for collection workers, etc. This			
Public Cleansing Dept.,	BMA	110 barges, 25 dump trucks, 18 bulldozers  (2) The immediate action programmes in which 3 levels of priority is shown include improvements in:  1] discharge and collection system  2] transport and transferring system	Study was 14410	udy was revised in the phase II study completed in 1991.		
7.OBJECTIVES OF STUDY  To fomulate M/P of inproving waste disposal sistem and feasibility study of it.		3! composting plants 4  final disposal system 5  administrative system 6  countermeasures to floods The total cost above pertains to the short-term improvement plan.  CF/S> Construction of final disposal site 3 Construction of refuse incineration plant 2 Construction of rapid type composting plant 2 800t/d				
8.DATE OF S/W	Mar.1979					
9.CONSULTANT(S)						
Tokyo Metropolis Enviro	nmental Service Corporatio	Imp. Period: .19852000				
		4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)				
10.STUDY TEAM	in the second of	Conditions and Development Impacts:				
No.of Members 55 Period Aug.1979-Fe		<pre><conditions><m p.f="" s=""> To properly dispose of whole waste targetting the completion in the year 2000 and considering local economic situations.</m></conditions></pre>				
May.1980-Se Total M/M		<pre><impacts><m p,f="" s=""> As the development impacts, public health and living environment for citizens are remarkably improved by modernization of waste disposal systems.</m></impacts></pre>	2 MAJOR RE	ASONS FOR PRESENT STATUS		
278.08	124.54 153.54		(1) Waste dispo	sal systems shall be updated according to economical		
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY			development as (2) High priori (3) Implementat Ministry of Tha (FY 1991 Overse 1. The solid was	waste are continuously generated. ty: One of 5 major projects in Banqkok metropolis 5 year plan. ion: recommendations will be wisely implemented by Hational iland and Banqkok Metropolitan Administration .		
12.EXPENDITURE Total Contracted	491,070 <b>(¥'000)</b> 447,098	5.TECHNICAL TRANSFER  (1) training to the local staff through OJT. (2) reception of trainees ,6 local staff (3) effective application of local consultants.		SOURCE OF INFORMATION		

ASE THA/S 201B/82

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Road Development in t	Thailand he Northern Region	1.SITE OR AREA  17 changwats of the Norther Regions (170,000 sq.km)  2.PROJECT COST M/P 1) 36,500 Local Foreign Cost Cost Cost  (US\$1,000)  (US\$1,000)  (US\$1=23Bahts) F/S 1) 58,913 44,822 14,091	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Fish Proces 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY	M/P+F/S	(US\$1=23Bahts)  2)  3)  3.CONTENTS OF MAJOR PROJECT(S) <a href="Majorated-width: Majorated-width: 1200km">M/P&gt; The study selected priority road sections by taking into account development potentials by area. 44 links (total length 1,200km) were selected for improvement or for new construction. A pre-feasibility study was undertaken on 31 links (860km) which were considered for short- and medium term implementation and narrowed down to 16 links (410km) for the subsequent feasibility study.  <pre> </pre> <pre> </pre> <pre> </pre>  The feasibility study was undertaken on 14 links(417.2km) requested by DOH. The analysis indicated the following 12 links (393.8km) as feasible.</a>	(Description)  1983 - 1986 D/D completed by DOH  Sep. 1983 OECF loan agreement (5,770 million yen)  Jan. 1986 Construction started  Aug. 1988 Construction completed  (FY 1991 Overseas Survey)  The construction was financed by OECF, IBRD and Thai Government.  (FY 1992 Overseas Survey)  The construction was completed in December 1991. 3,241 million yen was appropriated for the project from the OECF loan.  For the project, OECF loan (491.33 million bahts), World Bank loan (40 million bahts) and DOH budget (89.20 million bahts) were appropriated.
road sections (new cons	lity analysis of priority	11 links (F4 standard) Total 378.1km:  1)Khanu Worzlaksa Buri - Kao Lieo - Rt. 117 46.0km;  2)B.Wang Chik - Rt.117(B. Pa Daeng) 13.0km;  3)B. Wang Tham - B. Tha Makham 8.3km;  4)B. Kiu Phrao - B. Kaen Tai 55.0km;  5)Rt. 115(B. Thung Maha Chai) - B. Nong Takhian 53.5km;  6)B. Thung Ngiu - B. Chomphu 47.8km; 7)A. Wang Chin - Thoen 54.0km;  8)B. Nong Khanak - B. Wang Pong 21.0km;  9)B. Rong Sua Ten - B. Huai Khom 13.2km;  10)A Phrom Phiram - Rt.11(B.Nong Makhang) 14.4km;  11)Rt.12(Muang Kao, Sukhothai) - Si Satchanarai 51.9km  1 link (F5 standard):A. Wat Bot - B. Nakham 15.7km.	
9.CONSULTANT(S) Nippon Koei Co., Ltd. Katahira & Engineers In	ternational	Imp. Period:  4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)	
10.STUDY TEAM  No.of Members 12  Period Jun. 1980-Ma	ar.1982(0 months)	Conditions and Development Impacts: <pre> <conditions><f s=""> 1) The Northern Region has limited availability of arable land because of difficult topography and has been underdeveloped. The proposed project will provide transport infrastructure and stimulate productive activities; 2) In order to establish a framework of balanced regional growth through better inter-regional communication, the study formulated a optimum plan </f></conditions></pre>	
Total M/M 140.33 11.ASSOCIATED AND/OR SUBCONTRACTED STUD Agricultural data collection	Japan     Field       16.03     124.30       Y	to strengthen the road network, and proposed priority short—and medium-term routes.  Obvelopment impacts> <m p=""> M/P,F/S&gt; 1) The project will stimulate the regional stagnation caused by the shortage of productive land and low income by providing better transport infrastructure; 2) The project will contribute to the productivity improvement and diversification of agricultural production; 3) The road density of the Northern Region is lower than elements and the project will promote better communication.</m>	2.MAJOR REASONS FOR PRESENT STATUS  1) Large impact: substantial contribution to the alleviation of regional disparities which was one of the major objectives of the 4th and 5th development plans. 2) Linkage with other projects: the proposed priority links were consistent with other priority road development projects. 3) Consistency with government policy: the Government of Thailand has been emphasizing public investments in the operation and maintenance of the existing roads, and the projects proposed by the study were consistent with
12.EXPENDITURE Total Contracted	385,805 <b>(¥'000)</b> 381,842	1) OUT for the counterparts on the method of selecting priority road	3.PRINCIPAL SOURCE OF INFORMATION  0233

#### ASE THA/A 201B/82

I. OUTLINE	OF STUDY	II. SUMMARY OF	STUDY RES	SULTS	III. PRES	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY	Thailand	1.SITE OR AREA			1.PRESENT	Completed or in Progress	☐ Promoting
2.NAME OF STUDY Agricultural Cooperat	ive Promotion	2 places in each part of north, central in the districts of north, central, nor cooperatives as model agricultural coop 2.PROJECT COST M/P 1)  (USS1,000) 2)	theast, south, when erative are located Local Cost	re four proposed ICF/S> Foreign Cost	STATUS	<ul><li>Completed</li><li>Partially Completed</li><li>Implementing</li><li>Processing</li></ul>	<ul><li>□ Delayed or Suspended</li><li>□ Discontinued or Cancelled</li></ul>
3.SECTOR Agriculture/General		(US\$1=23Bahts) F/S 1) 45, 2) 3) 3.CONTENTS OF MAJOR PROJECT(S)	.508	6,478 39,030	(Description) <m p=""> A Feasib 1. Thai Government</m>	ility study was subsequently under ent requested Japanese Governmen lishment of model agricultural of	for cooperation
4.REFERENCE NO.		<m ?=""> We pointed realities and problems</m>	of organization, o	perations and	based on the 2. An S/W missi	final master plan report of Feb on was sent to Thailand on an F/S	.1981 5 in July 1981.
5.TYPE OF STUDY	M/P+F/S	management of agricultural cooperative idea for their improvement, based on call. Basic idea to strengthen the function	se studies in each	area.	July to Sept		
6.COUNTERPART AGENCY Cooperatives Promotion I	Department MOAC	four strategic targets, streng thening promotion of regional agriculture by commanagement, expansion of sales and purcealization of comprehensive agriculturand "total system" to facilitate all of proposed.	of member's organiz nducting quidance o hase abiding by fai al financial sytsem	ation base, f agriculture r rule, , are shown,	experts were The project- 1984. <f s=""> The project- techinical coom</f>	report of F/S was submitted in Mar.1982, and Japanese re assigned for one year and a half from Dec. 1982. Intype technical cooperation (5 years) began in July reposals of the study was implemented with the Japanese operation and grant aid.	
7.OBJECTIVES OF STUDY		2. Establishment of Agricultural Cooper	ative		technical co	ent requested Japanese Government operation and grant aid in June	1983.
To raise the agricultural production of cooperative member farms and to improve their socio-economic well-being.		<f s=""> 1.Projects to nurture agricultural cooperative 2.Establishment of consultant units and traveling guidance 3.Strengthening of training by agricultural cooperative training centers 4.Improvement of facilities of agricultural cooperative 5.Comprehensive financial measures</f>			<ol> <li>R/D for technical cooperation was concluded in July 1984, and the five-year project began. The project was completed in July 1989, but extended for two years for the follow-up cooperation</li> <li>In 1985, the Agricultural Cooperative Training Center of Northeast Thailand was established by the Japanese grant (598 million yen)</li> </ol> Investment Cost (thousand Baht)		
8.DATE OF S/W	Jul.1981				May -Nov.87	JICA 876 Tot. 3.711 3,7	
9.CONSULTANT(S)					JanJun.87 FY 37, 88	4,489 175 4,6 4,000 233 4.2	64 33
The Institute for the De	evelopment of Agricultural	Imp. Period:			FY 89 Total	4.000 200 4.2 16.000 608 16.8	
		4.FEASIBILITY AND Freasibility: ITS ASSUMPTIONS Yes	EIRR1) EIRR2) EIRR3)	FIRR1) FIRR2) FIRR3)	Thai side ab development.	poreciate the model project of th	e agricultural cooperative
10.STUDY TEAM		Conditions and Development Impac	us:				
No.of Members 6 Period May.1980~Fe	eb.1982(23 months)	<m p="">l.We proposed that establishment of should be chosen taking into considerat character and basic condition of each a 2.Development effect of promoting agric planning of agricultural cooperative protection of the fruither plan, and dissemination of the fruither.</m>	ion the difference rea. ultural cooperative omotion, quidance t	of regional  is expected by to implement			
Total M/M	Japan Field	cooperative to neighboring cooperatives	moting system in Ci	PD.	2.MAJOR REA	ASONS FOR PRESENT STATU	JS -
37.21 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	27.36 9.85 Y	3.Financial back up by the government 4.Cooperation with ACFT and CLT Development Impacts: 1.Improvement of management by agricult 2.Increase of employment opportunities,	ural cooperatives				·
		5.TECHNICAL TRANSFER					
12.EXPENDITURE	ton one suson	- Transfer of research method during th	e period of F/S.		3.PRINCIPAL	SOURCE OF INFORMATION	
Total Contracted	127, 935 <b>(¥'000)</b> 107, 192	- Discussion and cooperative operation	in writing a report	accepting two trainees.	00		

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	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled		
3.SECTOR Transportation/Fish Processing  4.REFERENCE NO. 5.TYPE OF STUDY F/S  6.COUNTERPART AGENCY Public Works Dept. (PWD), Ministry of Interio  7.OBJECTIVES OF STUDY  Alleviation of traffic congestion in Bangkok with the bridge serving to complete the midd ring road	3)  3.CONTENTS OF MAJOR PROJECT(S)  1) New Highway Bridge  Main Bridge: total length 290m, width 29.1m (6 Lanes+pedestrian), 85m+120m+85m-290m long(3 spans) (Freyssinet cantilever erection 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  4) Other structures Riverfront, side ditch, drainage network, pump station, utilities, electricity, water and telecom (Total 5,700m), parking spaces, park, landscaping, pedestrian bridges, signal, etc.	(Description)  Sep. 1993 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 (5,599 million yen) Dec. 1988 PQ 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.  (FY 1992 Overseas Survey) The project is included in the 5th and 6th National Social and Economic Development Plan.		
8.DATE OF S/W Mar.1981	Imp. Period: Oct.1983-Mar.1986  4.FEASIBILITY AND Feasibility EIRR1) 20.30 FIRR1)			
9.CONSULTANT(S) Chiyoda Engineering Consultants Co., Ltd. Japan Overseas Consultants Co., Ltd.  10.STUDY TEAM No.of Members 12 Period Jun.1981-Mar.1982 (10 months)	4.FEASIBILITY AND ITS ASSUMPTIONS  Yes  EIRR1)  EIRR2)  EIRR2)  EIRR3)  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 O/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 I	eld	2.MAJOR REASONS FOR PRESENT STATUS		
38.05 3.55 30  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Traffic survey, topographic survey and geological in	rvey	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 124,023 (¥	5.TECHNICAL TRANSFER  1) OJT 2) Participation of counterparts in the JICA program.	3.PRINCIPAL SOURCE OF INFORMATION		
Contracted 116, 682	3) Employment of local consultants	0230		

ASE THA/S 309/82

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  East Coast Water Reserved  Project	Thailand ources Development	1.SITE OR AREA	1 ( O with the time of time of the time of tim
3.SECTOR Social Infrastructures/Wa 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC Royal Irrigation Depart 7.OBJECTIVES OF STUDY Water Resources Develop Nong Pla Lai, Chon Buri	ment oment covering Rayong,	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 27.5 km Supply to Sattahip from Mab Ta Pud: Design dicharge 1.09 cu.m/s, Total length 21.9 Supply to Laem Chabang: Design discharge 1.01 cu.m/s, Total length 53.0 km c. Irrigation and drainage system Irrigation area 3,650 ha, Irrigation canal: Main length 46.2 km, Lateral length 20 Drainage area: Insige the project area 21.3 sq.m, Gutside the project area 14.9 sq Drainage length 6.5 km 2. Ban Bung Sub-project Reservoir and dam: Catchment area 53 sq.m, Gross reservoir storage 21,900,000 cu.m Dam type-Earth fill type with cut-off trench, Crest elevation EL. 86.3 m, Max. dam height 21.5 m, Crest length 2,800 m	Jul.1982 OECF loan agreement on the pipeline (6,570 million yen)  Jul.1982 OECF loan agreement on E/S of Nong Pla Lai Dam (320 million yen)  Sep.1982 D/D completed  Jun.1934 Construction completed  Sep.1988 OECF loan agreement on the dam(4,357 million yen)  Sep.1989 OECF loan agreement on construction of Mab Ta Phud - Sattahip Pipeline (1,750 million yen)  Dec.1990 Construction of the pipeline (Mab Ta Phud - Sattahip) is under implementation  km (FY 1991 Overseas Survey)  The construction is under implementation from 1989 to 1993 .  (FY 1993 Overseas Survey)  No additional information
8.DATE OF S/W  9.CONSULTANT(S)  CTI Engineering Co., Lt Sanyu Consultants Inc. Nomura Research Institu		Luran material a value a Leastiniii A. I.	.90 .80
10.STUDY TEAM  No.of Members 1  Period Feb. 1981-M	1 ar,1982(13 months)	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 a petrochemical plant, soda ash plant, chemical fertilizer plant, sponge iron plant, industrial estate, deep sport, etc.); b. Improvement of living standard and c. Land enhancement by flood control	a sea
Total M/M 61.79 11.ASSOCIATED AND/OR SUBCONTRACTED STUD Geological survey	<b>5</b>	and Flood control-3.54; 2. Ban Bung Sub-project: Industrial and municipal water-8.54, and Flood control-2.94.  5.TECHNICAL TRANSFER	(1) High degree of priority: The industrialization of the east 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 <b>(¥'000)</b> 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		
1.COUNTRY Thailand 2.NAME OF STUDY Phetchaburi-Kaeng Krachan Irrigated		1.SITE OR AREA  Phetchaburi River Basin, area : 52,600 ha, population: 192,000			RESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended		
Agriculture Developme	· · · · · · · · · · · · · · · · · · ·	2.PROJECT COST 1) (US\$1,000) 2) US\$1=23B=230Yen 2)	Total Cost Local Cost Foreign 233,865 163,396 76	0,469	O Implementing O Processing Discontinued or Cancelled		
3.SECTOR		3)		5 '	scription) he proposed project has been suspended because of the change in Thai		
Agriculture/General		3.CONTENTS OF MAJOR PROJECT(S)		Gover	rnment policy on farmland consolidation.		
4.REFERENCE NO.		for Phetchaburi irrigation agriculture for Phetchaburi irrigated area of 45,00 terminal facilities.	centering on improvement of irrigation that and new development of 7,100ha, and	1 [EX]	1991 Overseas Survey) additional information.		
5.TYPE OF STUDY	F/S	The Project aims to increase agricult	are production in the project area with		1993 Overseas Survey) to the changes in development policy of the Thai Government and		
6.COUNTERPART AGENCY	7	improvement and for readjustment of irr combination with existing facilities, t	lose are Pechi Head Works and the Irriq	ration diffi	iculty in financial arrangement, implementation of the project is ended. There is no possibility of the project to be implemented.		
RID (Royal Irrigation D Agriculture and Coopera	epartment), Ministry of tives		Farm Land	Je sea	mod. There is no possibility of the project to be impremented.		
7.OBJECTIVES OF STUDY		canal lininq : 167 km canal improvement : 128 km					
Feasibility study for i system improvement and consolidation							
8.DATE OF S/W	.0	Imp. Period: .19871998					
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility:	EIRRI) 26.00 FIRRI)				
Sanyu Consultants Inc.		ITS ASSUMPTIONS Yes	EIRR2) FIRR2) EIRR3) FIRR3)				
		Conditions and Development Impact - The increase of paddy proudction by 9 - Introduction of improved seeds to 48 - Expansion of cultivation in dry seaso - Total agriculture production and I.R.	8,000t annualy 700ha paddy n				
10.STUDY TEAM			lion Yen (lus\$=230Yen)				
No.of Members 11	L	Increment of Production: 584 Milli Total Production: paddy rice 240	mung bean 7	1			
Period Nov.1980-Ma	ar.1982(17 months)	( x 10*3 ton) fluit 16 Estimated IRR : 24%	vegetable 48				
Total M/M	Japan Field			2.M	IAJOR REASONS FOR PRESENT STATUS		
50.73	18.36 32.37			The	thai qovernment intends that farmland consolidation and agriculture astructure improvement to be undertaken by private sectors instead of the		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y		(FY 1993 Domestic Survey)	qover agric	rnment. Besides this case, projects of farmland consolidation and culture infrastructure improvement executed by organizations of farmers financed by private banks.		
		5.TECHNICAL TRANSFER	ILY INVO DOBBOTTO DOLACA				
12.EXPENDITURE		Training to engineers	i	3.PR	RINCIPAL SOURCE OF INFORMATION		
Total	201,291 (¥'000)		e <sup>t</sup>	02	Appropriate the American Continues and Conti		
Contracted	167,094		•				

#### ASE THA/A 306/82

I. OUTLINE	OF STUDY	II. SUI	MMARY OF	STUDY R	ESULTS		III. PRES	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Mae Kuang Irrigated A	Thailand Agriculture Development	1.SITE OR AREA Chieng Mai and Lampoor	Provinces				1.PRESENT STATUS	Completed or in Progress Completed Partially Completed	☐ Promoting ☐ Delayed or Suspended
Project		2.PROJECT COST (US\$1,000)	1) 2) 3)	Total Cost 204, 400 223, 600	Local Cost 126, 600 138, 700	Foreign Cost 77,800 84,900	(Description)	O Implementing O Processing	☐ Discontinued or Cancelled
3.SECTOR  Agriculture/General  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCE  RID (Royal Irrigation Description of the complete of th	epartment), Ministry of tives	3.CONTENTS OF MAJ  1. The dimension of of or  1) Left saddle dam  2) Main dam  3) Right saddle dam  2. Main irrigation of of or	OR PROJECT(S)  am est elevation E (m) 395.0 395.0 395.0 395.0 al: 37.4km canal: 146.6km dropower generation capacity: 3.7km aconomic acono	bean. Rice-Sweet	(m) 32.0 77.0 41.0		The project Detailed Design Jul. 1932 OE of un First Stage Con Sep. 1984 OE di Co Second Stage Co Oct. 1995 OE Ma un Third Stage Con Sep. 1987 OE Ma by	CF loan agreement signed for E/S which 190 million used for the dertaken by Sanyu Consultants, I struction: CF loan agreement signed (2,300 ft saddle dam constructed. Consider the saddle dam constructed. Consider the saddle dam construction: CF loan agreement signed (9,197 in and Right saddle dam constructed dertaken by a Chinese company, sel Co. Inc. CF loan agreement signed (2,805 in and tributary canals have been an Italian company with supervinsultants.	(940 million yen), project. D/D nc. million yen) truction was under yised by Sanyu million yen) ted. Construction upervised by Nippon million yen) n under construction
8.DATE OF S/W	Dec.1980	Imp. Period: Jac	.1976~Sep.1988					ork has completed.	
9.CONSULTANT(S)  Sanyu Consultants Inc.  Taiyo Consultants Co.,	Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS  Conditions and Dev conditions: 1. Economic cost: Bat 2. Maintenance cost:	at 2.521.4 million	(1980 price)	FIF FIF	RR1) RR2) RR3)			
10.STUDY TEAM  No.of Members 1  Period Feb. 1981-Fo	4 eb.1982(13 months)	Development impacts 1. The increase of ac 2. The increase in en 3. Flood control: and 4. The increase in fa	ricultural productions of the production of the	tivity sities for some l damage reduced	4,300 farm fa				
Total M/M 57.09	Japan         Field           21.57         35.32						2.MAJOR RE.	ASONS FOR PRESENT STAT	US
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y	5.TECHNICAL TRA	NSEER						
12.EXPENDITURE Total Contracted	193,441 (¥'000) 165,175	1.Acceptance of one tr 2.Several seminars hel	ainee	he period of the	survey		3.PRINCIPAL	SOURCE OF INFORMATION	

#### ASE THA/A 307/82

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Upper Pasak Medium So	Thailand cale Irrigation Project	1.SITE OR AREA  Upper Pasak river basin under PHETCHABUN Province (about 330km north from Bangkok)  2.PROJECT COST  Total Cost Local Cost Foreign Cost (US\$1,000)  1) 195,000 107,000 88,000 US\$1=23B	1.PRESENT   Completed or in Progress   Promoting
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Royal Irrigation Depart Agriculture and Coopera 7.OBJECTIVES OF STUDY Feasibility Study -to identify the order -to formulate an irrigate development project an feasibility of the pro-	of priority ated agricultural and identify the	3)  3.CONTENTS OF MAJOR PROJECT(S)  Sub-Project Huai Saduang Huai Khon Huai Yai K.Chaliang Yai Kaen Lab  1.Irrigation 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) 467 950 916 1.259  3.Irrigation Canal(km) - 105.2 26.6 21.2  4.Drainage Canal - 72.3 36.7 20.0  * Below implementation period is 10 years.	(Description)  The Royal Trrigation Development has been implementing the project with its own funds based on the results of the JICA Study.  (FY 1991 Overseas Survey)  D/D Period : 1986-1992  Consultant's country : Thai  Source of finance : Thai  Construction Period : 1988-1996  Country of main contractors: Thai  (FY 1993 Overseas Survey)  F/S review and D/D were conducted 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.
8.DATE OF S/W  9.CONSULTANT(S)  Nippon Koei Co., Ltd. Chuo Kaihatsu Internati  10.STUDY TEAM  No.of Members 3	Apr.1981  onal Corp.	Imp. Period:  4.FEASIBILITY AND Feasibility: EIRR1) 13.90 FIRR1)  TIS ASSUMPTIONS Yes EIRR2) FIRR2)  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) Rasing of the living standard of the regional inhabitants 3) Supplemental water supply to urban area	
Total M/M 72.48 11.ASSOCIATED AND/OR SUBCONTRACTED STUD  12.EXPENDITURE Total Contracted	Japan Field 21.06 51.42  188,810 (¥000) 175,942	5.TECHNICAL TRANSFER  To undertake on-the-job training of the government's officials in the course of the survey and study.	2.MAJOR REASONS FOR PRESENT STATUS  3.PRINCIPAL SOURCE OF INFORMATION  1023

ASE THA/S 403/82

I. OUTLIN	E OF STU	JDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Rama VI Bridge Rehab	Thailand		(US\$1,000) 1,353 1,353	1.PRESENT   Completed or in Progress   Promoting
3.SECTOR Transportation/Railway  4.REFERENCE NO. 5.TYPE OF STUDY  6.COUNTERPART AGENCE State Railway of Thail  7.ORJECTIVES OF STUDY  D/D and cost estimatic bidding documents on to the Rama VI bridge, which we	and on, etc., fo	taion of the	(US\$1=26 Bahts)  3)  3.CONTENTS OF MAJOR PROJECT(S)  (1) Survey to confirm present status riverbed scouring; Geological survey; Vibration survey (2) Analysis of causes of deformation (3) Study on repair policies; (4) Basic design (5) Study on construction methods (6) Approximate calculation of costs (7) Detailed design (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.	(Description)  Short-term plan  * Completed with domestic funds the purpose of the project was tentatively attained.  * Repair work on bridge piers and shoe resetting were implemented and the restriction on train speed lifted.  Long-term plan  * Double-tracking has not yet started due to its relation with a new road bridge.  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.  (FY1993 Overseas Survey)  Double - Tracking is scheduled to start soon after the approval of bu It will cost 44 million baht. Construction period will be from Feb.94 than 195.
B.DATE OF S/W 9.CONSULTANT(S)	Mar.1981		Imp. Period: 4.FEASIBILITY AND Feasibility: EIRR1) FIRR1)	
10.STUDY TEAM  No.of Members  Period Jan, 1982-1	18	l1 months)	TTS ASSUMPTIONS  Yes/No  EIRR2)  EIRR3)  FIRR3)  Conditions and Development Impacts:  In the short term, the current restrictions on large rolling stock and trainant to be continued.  In the long term, such measures as the repairing of bridge piers and shoe mare to be implemented.	į
Total M/M 46.54	<b>Japan</b> 35.50	Field		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STU -Survey by divers -Vibration survey -Excavation survey on bri	DY		5.TECHNICAL TRANSFER	
12.EXPENDITURE Total Contracted		87,560 <b>(¥'000)</b> 81,093	1) OJT and JICA training program for counterparts 2) Employment of local consultants	3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASE THA/S 404/82

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Thailand  2.NAME OF STUDY  Dok Krai - Mad Ta Pud Water Pipe Lin  Project in the East Coast Area	ne	(US\$1,000)	Cost , 188	1.PRESENT   Completed or in Progress   Promoting   STATUS   Completed   Delayed or Suspended   O Implementing   Discontinued or Cancelled
3.SECTOR Social Infrastructures/Water Resource Devel 4.REFERENCE NO. 5.TYPE OF STUDY D/D 6.COUNTERPART AGENCY Royal Irrigation Department (RID)	elopment	(US\$1=230Yen=23B)  3)  3.CONTENTS OF MAJOR PROJECT(S)  Nong Pla Lai Dam: Pipeline: Pipeline: Pirigation Water Drainage System: 27.6 km 3,650 ha	, , , , , , , , , , , , , , , , , , ,	(Description)  Date of completion of detail design : Sep.1982  Date of conclusion of L/A of the requested loan granted by the Japanese Government (320 million yen): Jul. 1982  Date of completion : Jun. 1984  Date of commencement of service : Sep. 1983  (FY 1991 Overseas Survey)  No additional information.
7.OBJECTIVES OF STUDY  Executive design for construction of pip between Dok Krai reservoir and Mab Ta Pu	-			
8.DATE OF S/W Oct.1980  9.CONSULTANT(S)  CTI Engineering Co., Ltd. Sanyu Consultants Inc. Nihon Suido Consultants Co., Ltd.		Imp. Period: Mar.1983-Aug.1984  4.FEASIBILITY AND Feasibility: EIRR1) 11.20 FIRR1) FIS ASSUMPTIONS  Yes  Conditions and Development Impacts: After deducting tax, insurance subsidy and indemnity from the construction coreckoned on the preliminary design as the basis.		
10.STUDY TEAM  No.of Members 22  Period Nov.1981-Aug.1982(10 mon	nths)	Regional development of the eastern coastal zone is anticipated by the supply municipal, industrial and irrigation water.	of	
Total M/M Japan 87.00 39.00  11.ASSOCIATED AND AOR SUBCONTRACTED STUDY Survey Geological Survey	Field 48.00	CTECUMICAL TO ANCEED		2.MAJOR REASONS FOR PRESENT STATUS  (1) High degree of priority: The industrialization of the east coast region was the No.1 priority project of the Government of Thailand  (2) RID was directly commissioned by the Prime Minister to pushing forward of the project.
12.EXPENDITURE Total 223, 5 Contracted 206, 2	694 <b>(¥'000)</b> 221	5.TECHNICAL TRANSFER  OJT and JICA training program for counterparts		3.PRINCIPAL SOURCE OF INFORMATION  ①②④

### PROJECT SUMMARY (Basic Study)

**ASE THA/S 501/82** 

Compiled Mar.1990 Revised Mar.1992

I. OUTLINI	E OF STUD	Y	II. SUMMA	RY OF STUD	Y RESUI	ЛS	III. PRES	III. PRESENT STATUS OF STUDY RESULTS	
1.COUNTRY  2.NAME OF STUDY  Water Supply Project	Thailand to Laotian D	Displaced	1.SITE OR AREA Two camps for Laotian refugees in	the northeastern pa	rt of Thailand		1.PRESENT STATUS	In Progress or In Use ☐ Delayed ☐ Discontinued	
Persons:Nakhon Phano	m Camp and Pa	k Chom Camp	(US\$1,000) 1) 2)	Total Cost	Local Cost	Foreign Cost	(Description)  After the comp by the Japanese 9	eletion of the study, the proposed tube wells were constructed grant aid.	
3.SECTOR Social Infrastructures/Wa	ater Resource D	Development	3.CONTENTS OF MAJOR PRO	JECT(S)					
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Ministry of Interior	Basic Stud	d <b>y</b>	1st phase study: Underground water survey at leading at 4 sites and identitube wells) 2nd phase study: Underground water survey at boring at 4 sites and identitube wells)	Pak Chom Camp (test			eder majerer von falleren sie en alle falleren en anderen falleren en anderen en anderen en anderen en anderen		
7.OBJECTIVES OF STUDY Survey of underground v		\$					ondere visit visus var		
8.DATE OF S/W	.0								
9.CONSULTANT(S)			4.CONDITIONS AND DEVELO						
Japan Engineering Const	ultants Co., Lt	id.	The project will supply potable w. (20,000 persons at Nakhon Phanom (Chom).	and 50,000 persons at	t Pak				
			. '		-	- * * · · · · · · · · · · · · · · · · ·			
10.STUDY TEAM							į		
No.of Members 8 Period Feb.1982-N	lov.1982 (10 r	months)							
Total M/M	Japan	Field	·				2.MAJOR REA	SONS FOR PRESENT STATUS	
36.66 11.ASSOCIATED AND/OR SUBCONTRACTED STUI		33.70				·			
12.EXPENDITURE			5.TECHNICAL TRANSFER				3.PRINCIPAL S	OURCE OF INFORMATION	
Total		0,465 <b>(¥'000</b> )		TO THE PARTY OF TH			0	to quantification in the formular description and the state of the sta	
Contracted	9:	8,916							

和名 ラオス難民生活用水供給計画

{M/P,Basic Study,Other}

**ASE THA/S 102/83** 

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS			
2.NAME OF STUDY	Thailand he Northeastern Region	1.SITE OR AREA  16 changwats of the Northeastern Region (169,000 sq.km)  2.PROJECT COST	1.PRESENT STATUS (Description)	■ In Progress or In Use  □ Delayed □ Discontinued		
		(US\$1,000) Total Cost Local Cost Foreign Cost (US\$1=23B) 2)	Based on the rec subsequently undert	commendations of the study, a feasibility study was taken on 15 routes for new construction and improvement tes for rehabilitation (90km).		
3.SECTOR Transportation/Fish Proces	sing	3.CONTENTS OF MAJOR PROJECT(S)	(FY1993 Overseas Su See the page on	(FY1993 Overseas Survey) See the page on its feasibility study.		
4.REFERENCE NO. 5.TYPE OF STUDY	M/P	The study proposed the following priority projects.  - New Construction and improvement 18 routes (666.9km)  - Rehabilitation 25 routes (468.0km)				
6.COUNTERPART AGENCY Dept. of Highways, Minis						
7.OBJECTIVES OF STUDY Formulation of a master development in the North						
			and the second s			
	Nov.1981	4.CONDITIONS AND DEVELOPMENT IMPACTS	4			
9.CONSULTANT(S) Nippon Koei Co., Ltd. Katahira & Engineers Int	ernational	Development impacts:  1) Narrowing of regional disparities 2) Stimulation of agricultural production 3) Development in poorer areas	THE PROPERTY OF THE PROPERTY O			
10.STUDY TEAM		Social impacts: 1) Alleviation of social and political isolation 2) Improvement of health services 3) Improvement of education				
No.of Members 11 Period Mar.1982-Ma	r.1983(12 months)	4) Reduction of income disparities	WESTIANDS BANK AND			
Total M/M	Japan Field		2.MAJOR REASO	ONS FOR PRESENT STATUS		
79.20 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	14.60 64.60		Martin Bulletina Publisher			
12.EXPENDITURE Total Contracted	224, 974 <b>(¥</b> °000) 216, 437	5.TECHNICAL TRANSFER  1) OJT of the methods for selecting priority roads and for measuring social impacts 2) Participation of 2 counterparts in the JICA training program	3.PRINCIPAL SOI	URCE OF INFORMATION		

#### ASE THA/S 204B/83

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Development Project of the Eastern Seaboa	Thailand  of the Industrial Port	1.SITE OR AREA  Coastal Area, Layon Province  2.PROJECT COST M/P 1) 888,220 Local 570,800 Foreign 56  (US\$1,000) 2) Cost Cost	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
Authority of Thailand 7.OBJECTIVES OF STUDY Establishing the Master	r Plan for Maptaput Port and feasibility study of	(US\$1=239.2Yen) F/S 1) 1,808,940 668,491 1,140 2) 3)  3.CONTENTS OF MAJOR PROJECT(S) <pre> </pre> <pre> <pre> <pre> <pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	
Kokusai Kougyo Co., Lto	evelopment institute of Ja	Imp. Period: Jan.1984-Dec.1987  4.FEASIBILITY AND Feasibility: EIRR1) 15.70 FIRR1) 19 ITS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)	.80
10.STUDY TEAM  No.of Members 9  Period Jul. 1982-N	ov.1983(17 months)	Conditions and Development Impacts: <pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></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 65.31 11.ASSOCIATED AND/OR SUBCONTRACTED STUD		<pre><f></f> <pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre><pre><pre><pre><pre><pre><pre>&lt;</pre></pre></pre></pre></pre></pre></pre></pre>	2.MAJOR REASONS FOR PRESENT STATUS  (1) To formulate the core of development (2) High priority in Thailand National Plan
12.EXPENDITURE Total Contracted	412,019 (¥'000) 411,680	5.TECHNICAL TRANSFER  Giving lecture on methods for Planning Ports and Industrial Estates	3.PRINCIPAL SOURCE OF INFORMATION  024

ASE THA/S 311/83

I. OUTLINE	OF STUDY	II. SUMMARY C	F STUDY R	RESULTS		III. PRES	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Nong Kho - Leam Chaba	Thailand  ng Water Pipeline	1.SITE OR AREA				1.PRESENT STATUS	Completed Partially Completed	☐ Promoting ☐ Delayed or Suspended
Project		2.PROJECT COST 1) (US\$1,000) 2) (US\$1=230Yen=23B) 2)	Total Cost 16,300 13,100	Local Cost 7,100 5,300	Foreign Cost 9, 200 7, 800	(Description)	O Implementing O Processing	☐ Discontinued or Cancelled
3.SECTOR Public Utilities/Timber	Processing	3.CONTENTS OF MAJOR PROJECT(S  First Stage  Nong Kho- Turno	Second			1984 Sep. OECF 1985-1986 Detai 1985 Oct. OECF 1987 May Const	loan agreement (1,363 million yearstion commenced	
4.REFERENCE NO.		Turnout Receivin		Receiving Wel	1		ruction completed	
5.TYPE OF STUDY	F/S	Diameter of pipe 1,000mm 900m Length of pipe 10.95km 3.49k		900ma 3.49km	į	(FY 1991 Overse: No additional i		
6.COUNTERPART AGENCY		Expected completion year 1988 1988		1994				
Public Works Dept., Min	istry of Interior	2.Turnout Delivery pipe 250mm - Slice pipe 2 units - 3.Aqueduct(pipe-beam) Net span - 27.5m	- -	27.5				
7.OBJECTIVES OF STUDY		Diameter of pipe - 900 4.Receiving Well	<del>-</del>	900				
To formulate a plan for the Nong Kho dam to the verify the feasibility		Dimension(WXHXL)(m) - 6.3x4.	4x16.4 -	6.3x4.4x16.4				
8.DATE OF S/W	Jul.1983	Imp. Period: .19871988						
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility:	EIRR1)	11.60 FIRR1)	9.60			
Nippon Koei Co., Ltd.		ITS ASSUMPTIONS Yes	EIRR2) EIRR3)	FIRR2) FIRR3)				
Nikken Consultants., Ind		Conditions and Development Imp [Conditions] The demand for water was projected in the able to satisfy the projected pipeline from outside the area.	acts:	The existing ress	prvoir will			
10.STUDY TEAM		The project life is set at 40 years	•					
No.of Members 7 Period Aug.1983-Ma	ar.1984(7 months)	Development Impacts: The industrial and urban developme upgrading of living standard, improve in Bangkok.	ent in the area, i	ncrease of job opp ance, mitigation o	contunities, of congestion			
Total M/M	Japan Field					L	ASONS FOR PRESENT STATU	· · · · · · · · · · · · · · · · · · ·
31,00 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	13.33 17.67					dependent on the 2) Close linkage source of water 3) High priority	e with other projects: developme	nt in Laem Chabang and the
		5.TECHNICAL TRANSFER						
12.EXPENDITURE Total	75,218 (¥'000)	1) On-the-job training during the stu 2) Acceptance of counterparts for the	dy training in Japa	n <sub>.</sub>		3.PRINCIPAL	SOURCE OF INFORMATION	
Contracted	78,467		-					

**ASE THA/S 312/83** 

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 Second Stage Express Greater Bangkok	vay System in the	Creater Bangkok  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1)	STATUS  Completed  Partially Completed  Implementing Processing  Delayed or Suspended  Discontinued or Cancelled
		2)	(Description)
3.SECTOR	The state of the s	3) 3.CONTENTS OF MAJOR PROJECT(S)	D/D of the Second Expressway was undertaken by a consortium of 5 consulting
Transportation/Fish Proces	ssing	-Toll highway: 27.9 km	firms.  In September 1988, ETA decided to implement the project with the private
4.REFERENCE NO.		-North-South Route running from Chaeng Wattana to an interchange at Bang Khlo: 19.2	sector investment and the contract was granted to the Bangkok Expressway Consortium in December of the same year. ETA allowed one year for the
5.TYPE OF STUDY	F/S	-West-East Route running from an interchange at Phaya Thai to Sri Nakaim Road: 8.7 km -Toll elevated expressway (Total length: 31.8km)	acquisition of right of way.
6.COUNTERPART AGENCY Expressway and Rapid Tr		The project cost is 26,200 million bahts.	(FY 1991 Overseas Survey)  Construction will be completed in 1955. There was route adjustment for more suitable traffic catchment making the total length of the expressway 39 km.
7.OBJECTIVES OF STUDY Road planning			Comparison between the development study plan and the ongoing project:  Study plan Ongoing project:  O
			(FY1993 Overseas Survey) ETA will acquire project site by 1996. Land acquisition cost will be 26,800 million baht.
8.DATE OF S/W	Mar.1982	Imp. Period: .19871995  4.FEASIBILITY AND   Faccibility   EIRRI)   17.00   FIRRI)   12.00	4
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRR1) 17.00 FIRR1) 12.00 FIRS SSUMPTIONS Yes EIRR2) FIRR2)	
Pacific Consultants Int	ernacional	EIRR3) FIRR3)	
		Conditions and Development Impacts:  Condition:  Future traffic volume was forecasted for the targetted year 1990,2000,2010 on the basis of O-D survey made by home interviews.	
10.STUDY TEAM		Development Impact:	
No.of Members 10	<b>i</b> 5 .	Traffic congestion in the city is expected to be alleviated.	
9	ov.1983(18 months)		
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS
60.17	8.66 51.51		(1) Effectiveness: Speeding up of vehicles (2) Priority: Traffic volume of the First Stage exceeded the anticipated
11.ASSOCIATED AND/OR	v		figure; therefore, toll revenue will increase and priority of Second Stage is high.
SUBCONTRACTED STUD Topographic survey Geologic			(3) Strong support to promote this project
		5.TECHNICAL TRANSFER	
12.EXPENDITURE		(1) Overseas training for 2 counterpart staff (2) Employment of local consultants for topographic and geological survey	3.PRINCIPAL SOURCE OF INFORMATION
Total	260,230 <b>(¥'000)</b> 250,242	12) mapted month of toest commutement of coboditioning and destroyeest survey	023
Contracted	۲۵۷, ۷۹۷		

ASE THA/S 310/83

					<u> </u>			
I. OUTLINE	OF STUDY	II. SUMMARY O	F STUDY RES	ULTS	III. PRE	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY	Thailand	1.SITE OR AREA			1.PRESENT	Completed or in Progress	Promoting	
2 NAME OF STUDY East Coast Water Reso	urces Development	Eastern seaboard (Rayong and Chonburi	changwats)		STATUS	<ul><li>Completed</li><li>Partially Completed</li></ul>	Delayed or Suspended	
(Phase II)		2.PROJECT COST (US\$1,000) 1)	Total Cost Lo 198,260 329,565	Cost Foreign Cost 82,608 134,782		<ul><li>Implementing</li><li>Processing</li></ul>	Discontinued or Cancelled	
3.SECTOR		(0571-2368105)	69,130	17,391	(Description)	en Nong Pla Lai Reservoir and Nong	Kho Reservoir	
Social Infrastructures/Wat	er Resource Development	3.CONTENTS OF MAJOR PROJECT(S)  1) Khlong Luang:			Feb.1990 CECE	L/A (E/S) 204 million yen or Component: Engineering Service		
4.REFERENCE NO.		(a)Multi-purpose dam (h.42.5.m); (b irrigation and drainage (6,600ha) i2) Khlong Yai:	)canal connecting the	dam and Chomburi; (c)	Jan. 1993 OECE	L/A 6,362 million yen or Component: Canal construction		
5.TYPE OF STUDY 6.COUNTERPART AGENCY	F/S	(a) Multi-purpose dam (h.50.8m); (b) Lai Dam and Nong Kho Dam; (c) irriq	canal connecting Nong ation and drainage	Pla	2) Khong Luang Suspended at	and Khlong Thap Ma: fter the completion of the F/S.		
Royal Irrigation and Dra	<del></del>	(7,700ha) 3) Khlong Thap Ma: (a)Multi-purpose dam (h. 28.9m): (b	)irrigation and drain	age	(FY 1991 Overse Project scale			
7.OBJECTIVES OF STUDY Feasibility analysis of	three dams							
8.DATE OF S/W	Feb.1982	Imp. Period: .19841996			_			
9.CONSULTANT(S) Nippon Koei Co., Ltd.		4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes	EIRR2) 15	.10 FIRR1) .00 FIRR2) .10 FIRR3)				
Nikken Consultants., Ind		Conditions and Development Impa Benefits of the projects are estima	ted as follows.					
10.STUDY TEAM  No.of Members 12  Period Jul.1982-Ma		Water Demand Agri. Dev. Flood 1) 423.3 180.7 4 2) 793.6 198.2 5	Unit: million Bahts) Control Total 9.8 653.8 7.2 1,049.0 9.5 101.0			· · · · · · · · · · · · · · · · · · ·		
Total M/M	Japan Field			•		ASONS FOR PRESENT STATU	S	
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y	STECHNICAL TO ANGLED			(FY 1991 Overse Khlong Yai is Khlong Thap Ma	eas Survey) planned to follow Wong Pla Lai Da have resettlement problems.	n, whereas Khlong Luang and	
12.EXPENDITURE		5.TECHNICAL TRANSFER			3.PRINCIPAL	SOURCE OF INFORMATION		
Total Contracted	184,263 <b>(¥'000)</b> 173,923			·	120			

#### ASE THA/A 308/83

I. OUTLINE	OF STUDY	II. SUMMARY O	F STUDY RE	ESULTS		III. PRESENT STATUS OF STUDIED PROJECT			
1.COUNTRY  2.NAME OF STUDY  Mae Chang Irrigation	Thailand Project	1.SITE OR AREA Northern part of Thailand, Mae Chang R  2.PROJECT COST (USS1,000)  1) 2)	Total Cost 44,000	Local Cost 22,000	Foreign Cost 22,000	1.PRESENT STATUS	Completed or in Progress Completed Partially Completed Implementing Processing	<ul><li>□ Promoting</li><li>□ Delayed or Suspended</li><li>□ Discontinued or Cancelled</li></ul>	
3.SECTOR  Agriculture/General  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  RID (Royal Irrigation D  Agriculture and Coopera	epartment), Ministry of	3) 3.CONTENTS OF MAJOR PROJECT(S) Beneficial Area: 8.095ha (Right bank Major Facilities: Storage dam 1 site (total storage content folum Diversion dam 1 site (total storage 72,000m3 Combound Content	apacity 40MCM, me 680,000m3, Zone capacity 7 MCM, D. ination type) canal) o-lining canal) rm facilities	type earthfil:		of the Thai Goverse. No additional  (FY 1993 Overse Due to the chapriority of the project to be inmortant targe	as Survey) information. as Survey) nges in development policy of the project is ranked low and there molemented. Previously, Land co- t in the development policy of ac- en given to small irrigation deve-	e government of Thailand, the is no possibility of the solidation was one of the most riculture secotr, however high	
7.OBJECTIVES OF STUDY Feasibility study of the Chang area through the storage dam	e irrigation plan in Mae construction of a water								
8.DATE OF S/W 9.CONSULTANT(S) Sanyu Consultants Inc. Taiyo Consultants Co.,	Nov.1982	Imp. Period: Apr.1984-Apr.1992  4.FEASIBILITY AND Feasibility: Yes/No  Conditions and Development Impa (conditions)  - Total project cost : 44.25 millio Reservoir are : 1.300ha	EIRR1) EIRR2) EIRR3)	13.60 FIRR FIRR FIRR	2)				
10.STUDY TEAM  No.of Members 13  Period Jan.1983-Ja			ies	is incomes					
Total M/M 69.11 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 34.81 34.30	5.TECHNICAL TRANSFER	(FY 1993	Domestic Surve	ey)		ASONS FOR PRESENT STATU ocating 25 families in the area wer Basin.		
12.EXPENDITURE  Total  Contracted	186, 107 <b>(¥'000)</b> 141, 808	To Thai counterparts assigned through	I the survey			3.PRINCIPAL ①233	SOURCE OF INFORMATION		

Compiled Mar.1990 Revised Mar. 1994 **ASE THA/S 103/84** III. PRESENT STATUS OF STUDY RESULTS I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS 1.PRESENT 1.COUNTRY 1.SITE OR AREA Thailand In Progress or In Use STATUS Upper part of the Southern Region (pop.1.1 million) ☐ Delayed 2.NAME OF STUDY ☐ Discontinued Sub-Regional Development of the Upper 2.PROJECT COST Southern Part Local Cost Foreign Cost (Description) **Total Cost** (US\$1,000) 1) After the completion of the study. ADB reviewed 10 high priority projects 1) and endorsed their validity. 2) (US\$1=23Bahts) 3.SECTOR 2) The Southern Seaboard Development Committee (chaired by the Prime Minister) was established in 1989. Under the purview of this Committee, a study on the Development Plan/Sericulture 3.CONTENTS OF MAJOR PROJECT(S) development of Southern Thailand is being implemented, including the East-West Link, the Krabi Oil Refinery and Pipeline, and the Khanom Deep-sea Port, with The study proposed 10 high priority projects at the total cost of 24,272 million World Bank finance. 4.REFERENCE NO. 3) With JICA technical assistance, the Tourism Authority of Thailand Phuket Airport Industrial Estate and Export Processing Zone East-West Link S.TYPE OF STUDY M/P implemented a master plan study on tourism in Southern Thailand (1988). 6.COUNTERPART AGENCY Surat Thani International Port (Khanom Deep-sea Port) 4) With JICA technical assistance, the Dept. of Highways of the Ministry of Krabi Oil Refinery and Pipeline Communications is implementing a master plan study on the road network (the East-West Link) in Southern Thailand. National Economic and Social Development Board Phuket Urban Development Surat Thani Urban Development (NESDB) Central Lowland Development 5) The Electricity Generating Authority of Thailand is making preparations for a study on the Kaen Krung Dam proposed ad part of the Tapi-Phum Duang River Tapi-Phum Duang River Management 10) Phuket Water Supply Management, but the problem of relocation is yet unsolved. 7.OBJECTIVES OF STUDY Note: The cost shown above pertains to the ten high priority projects. 6) Unileyer and other private enterprises have been active in the Central Formulation of a regional development plan through 2000 (FY 1993 Domestic Survey) 1) The idea of East-west Link is accommodated into the present Land Bridge 2) Krabi-Khanom Road is under D/D. 8.DATE OF S/W Nov.1982 4.CONDITIONS AND DEVELOPMENT IMPACTS 9.CONSULTANT(S) Development impacts: 1) Lessening of the concentration of economic activities in Greater Bangkok and more decentralized economic growth International Development Center of Japan Pacific Consultants International 2) Agricultural development (agricultural land development of unutilized or underutilized land and an increase of agricultural exports) Industrial development (Sophistication of processing industries) **10.STUDY TEAM** 4) Tourism development (beach resorts, etc. 5) Energy development (hydro-power, thermal power (coal), refining of Middle East No.of Members Period Mar. 1983-Mar. 1985 (24 months) 6) Development of two urban cores (Surat Thani and Phuket) 2.MAJOR REASONS FOR PRESENT STATUS Total M/M Field Japan (FY 1991 Overseas Survey) 136.40 157.10 20.70 The project was integrated in the Sixth National Plan (Chapter 5:"Preparaton for Development of Other New Zconomic Areas"). 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE 1) Participation of counterparts in the JICA training program (2 Staff) 431,827 (¥'000) **①23** 2) OJT for the counterparts through joint work

Contracted 4 和名 南タイ北部地域総合開発計画

416,274

{M/P,Basic Study,Other}

ASE THA/S 205B/84

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 Latin Chabang (120km southeast of Bangk	ok)		1.PRESENT		
Area	of Leam Chabang Coastal	(US\$1,000) 2) (US\$1=23B) F/S 1) 397	,000 Local Foreign Cost Cost ,000 214,000	183,000	O Implementing O Processing Discontinued or Cancelled		
3.SECTOR  Development Plan/Sericult	ura	2) 3)			(Description)  The project is under implementation with the OECF loans.		
4.REFERENCE NO.		3.CONTENTS OF MAJOR PROJECT(S) <pre><m re=""> 1) Industrial Development 2) Port Development: 16 berths, domestic</m></pre>	t wharf 1,100m, wharf area 258ha	:	Oct.1985 OECF loan agreement on the industrial estate I (2,922 million yen) Sep.1937 OECF loan agreement on the industrial estate II (3,003 million yen)		
5.TYPE OF STUDY 6.COUNTERPART AGENC	M/P+F/S Y	length of breakwa' 3) Urban Development: New town populat: 4) Transportation Planning	ter 3.070m		Sep.1984 OECF loan agreement on the commercial port I		
Industrial Estate Autho	mod	5) Utility Development Water supply, sewerage system, dr. waste disposal, power supply syste telecommunication system (number of telex terminals 64)	or telephones 13,764, number of		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 Formulation of a master for the development of feasibility analysis of (target year 1987)	r plan (target year 2000) Laem Chabang Area and	land preparation plan (land fill : * The project cost 1) above is for a sl long-term plan. <pre><pre><pre><pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre><pre></pre> <pre></pre> <pre></pre> <pre><pre></pre> <pre></pre> <pre><pre><pre><pre><pre><pre><pre></pre> <pre></pre> <pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	n development plan: estate 219ha c wharf 280m, land area 116ha ter 2,400m Lon 24,000, area 130ha		Sep.1988 OECF loan agreement on the railway (1,013 million yen)  (FY 1991 Overseas Survey) Construction Period: From year 1988 to year 1991  (FY 1993 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) n 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 the housing estate.	e industrial estate, and 2)FIRR for				
Nippon Koel Co., Ltd.		Imp. Period: .19851989					
		4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes	EIRR1) 19.20 FIRR1) EIRR2) FIRR2) EIRR3) FIRR3)	8.40 4.80			
10.STUDY TEAM		Conditions and Development Impa					
No.of Members Period Jan.1984-M	ar.1985(15 months)	<pre><h p=""><impacts>1) Creation of employmen 2) Increase in foreign exchange earnin 3) Control of excessive growth in the     Development of the regional economy <f s=""><conditions> EIRR: adjusted the price with the Stan</conditions></f></impacts></h></pre>	ga Bangkok Metropolitan Area and				
Total M/M		Benefits consist of value added in the FIRR: Calculated for the investments a development (FIRR for the developing e	industrial estate nd for entities in charge of ntity is calculated to be 8.0%		2.MAJOR REASONS FOR PRESENT STATUS		
65.31 11.ASSOCIATED AND/OR SUBCONTRACTED STUD		for the industrial estate and 114 for <impacts>1)Creation of employment 2)I 3)Regional economic growth 4)Improvem 5)Development of coastal shipping and 6)Utilization of local resources; 7)Actechnologies, managerial technology</impacts>	the housing estate) ncreased foreign exchange earnings ent of transportation system port related industry. cumulation of production		1) Large impact: employment creation, increased foreign exchange, transfer of technology 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 Total Contracted	255,314 <b>(¥'000)</b> 181,733	5.TECHNICAL TRANSFER		en terre a julius de la agración	3.PRINCIPAL SOURCE OF INFORMATION  ①②③④		

ASE THA/S 314/84

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
_	Thailand	1.SITE OR AREA  Entire Bangkok Metropolitan Area  2.PROJECT COST Total Cost Local Cost Foreign Cost	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended		
Lines in the Bangkok	Metropolitan Area	(US\$1,000) 1) 158,000 100,000 48,000 (US\$1=23B) 2)	Implementing ○ Processing □ Discontinued or Cancelled (Description)		
3.SECTOR Transportation/Railway		3) 3.CONTENTS OF MAJOR PROJECT(S)	The State Railway of Thailand and the Ministry of Communications decided to implement the track elevation by the BOT system. SRT invited the private sector application in December 1988, but received no response. By offering		
4.REFERENCE NO.		Civil work US\$ 125 million Land procurement US\$ 2000 million Electric facilities US\$ 30.9 million Rolling stock US\$ 68.6 million	better access to the SRT-owned land, the invitation was announced again in October 1989. In November 1990, SRT signed the contract of 80 billion bahts (about 400 billion yen) with HOPEWELL of Hong Kong.		
5.TYPE OF STUDY 6.COUNTERPART AGENCY	F/S	Track elevation will be mainly carried out in the following sectionsBangkok Station - Bang Sue Station	In December 1991, the HOPEWELL Company decides to carry on this project, therefore, it can be expected that the construction of track elevation together with community train and freeway for the first phase along the Yommaraj-Donmaung section for a distance of 18.8km shall be finished in year		
State Railway of Thaila	nd	-Yoma Pot, Chit-La-Da Junction - Makkasan Station } 13 km -Makkasan Station - Mae Nam Station }	1995. (FY 1991 Overseas Survey)		
7.OBJECTIVES OF STUDY			The project scale was enlarged to 60.1 km consisting of north-south and east-west lines with a budget of 60 billion bahts. The construction will be from 1993 to 1996.		
Increasing the efficiend safety of train operation traffic congestion at le	on and elimination of		(FY1993 Overseas Survey) The construction by HOPEWELL is from 1991 to 1999. It will totally cost 80 billion baht.		
8.DATE OF S/W	Jun.1983	Imp. Period: .19841997			
9.CONSULTANT(S) Japan Railway Technical	Service	4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR3) FIRR3)			
		Conditions and Development Impacts: (1) Preconditions 1) With/without analysis conducted 2] Project life estimated to be 30 years			
10.STUDY TEAM		3] 1 baht = 10 yen 4] As for the transfer of traffic, only that from buses was considered.			
No.of Members 13 Period Aug.1983-Jul.1984(11 months)		<ul> <li>(2) Development impacts</li> <li>1] Alleviation of traffic congestion at level crossings owing to track elevation.</li> <li>2) Alleviation of road traffic congestion owing to passengers transferring from buses to the railway due to the latter's punctuality and faster speeds</li> </ul>			
Total M/M	Japan Field	3) Elimination of geographical separation and promotion of urban facilities development owing to	2.MAJOR REASONS FOR PRESENT STATUS		
53.27	36.19 17.08	track elevation. * Above EIRR is 16 - 20%.	(FY 1991 Overseas Survey) Due to the HOPEWELL proposal.		
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Geological and traffic volu	Une surveys were entrusted to				
a local consultant		5.TECHNICAL TRANSFER			
12.EXPENDITURE Total Contracted	144,855 <b>(¥'000)</b> 136,251	(1) OJT: Technical quidance was provided to counterparts on such matters as the preparation of O-D tables. (2) Personnel training: 4 counterparts received training from JICA. (3) Joint preparation of a report: a part of the Progress Report.	3.PRINCIPAL SOURCE OF INFORMATION  ©2		

ASE THA/S 313/84

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Comprehensive Develop Shipping	Thailand	1.SITE OR AREA the entire coastal areas  2.PROJECT COST	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
	F/S  Y e Marine Promotion Communications  hensive development plan	3.CONTENTS OF MAJOR PROJECT(S)  1) Present status of physical distribution and selection of major commodities for domestic shipping 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) Formulation of a development plan for the domestic shipping industry and regional ports 6) Economic and financial analysis of the operations of domestic shipping and regional ports	(Description)  Suspended after the completion of the study.  A short-term expert (2 months) was sent in 1985 and 1986 to give advice on the legislation on domestic shipping and its promotion.  The project requires the government finance, and the implementation was suspended because some legislative improvement is necessary for reviewing the operation of domestic shipping companies.  (FY 1991 Overseas Survey)  Office of the Mercantile Marine Promotion Commission (CMPC) 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.  (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.
9.CONSULTANT(S) The Maritime Internatio	Feb.1983  nal Cooperatin Center of Jevelopment Institute of Ja	Imp. Period: Jul.1983-Oct.1984  4.FEASIBILITY AND Feasibility: EIRR1) 19.70 FIRR1) FIS ASSUMPTIONS No EIRR2) FIRR2) EIRR3) FIRR3)	
10.STUDY TEAM No.of Members 11		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 reqistry; 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/OR SUBCONTRACTED STUD	Japan       Field         37.50       2.00         Y	5.TECHNICAL TRANSFER	2.MAJOR REASONS FOR PRESENT STATUS  1) Change of priority 2) Problem of demand: difficulty of providing transportation service with profit.  (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.
2.EXPENDITURE  Total  Contracted	219,015 <b>(¥'000)</b> 88,824	1) CJT on the operation of domestic shipping and ports 2) Participation of the counterparts in the JICA training program	3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASE THA/A 309/84

I. OUTLINE	OF STUDY	II. SUMMARY OF	STUDY RE	ESULTS		III. PRE	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Lower Northeast Mediu	Thailand om Scale Irrigation	NakhonRatchasima and BuriRam Provinces, northeastern part of Thailand			1.PRESENT STATUS	STATUS Completed Partially Completed Delayed or Suspended			
Package Project		2.PROJECT COST 1) Price in 1983 2)	Total Cost 58,874	28,131	oreign Cost 30,743	(Deceriation)	○ Implementing ○ Processing □ Discontinued or Cancelled		
3.SECTOR		3)	<del></del>			(Description)	e dam in Lam Plai Mat was constructed by the Thai Government		
Agriculture/General		3.CONTENTS OF MAJOR PROJECT(S)  Lam Plai Nome Mat Lam	Huai Puk Phlu			fund during 198 Small-scale			
4.REFERENCE NO.						(FY 1991 Overse	eas Survey)		
5.TYPE OF STUDY	F/S		.0m 20m			No additional			
6.COUNTERPART AGENCE RID (Royal Irrigation D Agriculture and Coopera	epartment), Ministry of	Diversion weir l site	MCM 6 MCM — — — — — — — — — — — — — — — — — —			site has been of 325 million Bha As a 1st stage of 62km was com	conducted by in 1985, Dam construction in Ram Prai Mat project conducted by qovernment budget in 1991. Total project cost was ats. Irrigation canal construction was solited into 2 phases. of 20,000 rai of irrigation area, 14km of irrigation canal out moleted in 1993. As a 2nd stage of 40,000 rai irrigation area, 150km of irrigation canal is to be initiated in 1994 and to be		
7.OBJECTIVES OF STUDY						completed withi			
1	development through the m-size dam for irrigation								
8.DATE OF S/W	Dec.1982	Imp. Period:				]			
9.CONSULTANT(S) Sanyu Consultants Inc. Naigai Engineering Co.,	Ltd.	4.FEASIBILITY AND Feasibility: TTS ASSUMPTIONS Yes	EIRR1) EIRR2) EIRR3)	8.70 FIRRI) 11.20 FIRR2) FIRR3)		Particular de l'acceptant de l'accep			
Kokusai Kougyo Co., Ltd		Conditions and Development Impact Trrigation agriculture development plan The proposed cropping patern is 100% o upland crop. The terminal irrigation facilities are	: f wet season padd			- ·			
10.STUDY TEAM				20-30 na Ot Ittiqa	abie alea.				
No.of Members 1	• •	Water use development plan in a village Field crop adjustment facilities for n well as to secure farmers' potable wate	ight will be esta	ablished to breed f	fish as				
Period Feb.1983-Ju	11.1984(25 months)	shallow well.	ond for dener						
Total M/M	Japan Field			•		2.MAIOR RE	ASONS FOR PRESENT STATUS		
82.10	38.31 43.79	,							
11.ASSOCIATED AND/OR SUBCONTRACTED STUD						projects, and t projects.	rnal finance is mainly used for the implementation of big the Thai Government itself finances small and medium size		
	ui-d	5.TECHNICAL TRANSFER		editore collection to the total account to the collection of the c	o de de la companya d				
12.EXPENDITURE						3.PRINCIPAL	SOURCE OF INFORMATION		
Total	240, 296 <b>(¥'000)</b>		•			023			
Contracted	223, 112	·							

# PROJECT SUMMARY (Other)

ASE THA/S 601/84

Compiled Mar.1988
Revised Mar.1994

I. OUTLINE OF STUDY			II. SUMMARY OF STUDY RESULTS	III. PRE	SENT STATUS OF STUDY RESULTS
1.COUNTRY  2.NAME OF STUDY  Traffic Safety Plan	Thailand for Roads		1.SITE OR AREA Entire country	1.PRESENT STATUS	■ In Progress or In Usc  □ Delayed □ Discontinued
			2.PROJECT COST Total Cost Local Cost Foreign Cost  1) 2)	Utilizing the	quidelines and other suggestions of the study, the Dept. of en installing necessary traffic-safety facilities.
3.SECTOR Transportation/Fisheries 4.REFERENCE NO.			3.CONTENTS OF MAJOR PROJECT(S)  In order to promote traffic safety in road transport, the study conducted the following tasks. (1) Collection and analysis of road traffic data	approved.	f study have been utilized for a loan proposal to the World th National Economic and Social Development Plan and it was
5.TYPE OF STUDY 6.COUNTERPART AGENC Dept. of Highways, Mini	أسم		(2) Identification of high-risk areas (3) Guidelines of physical facilities (4) Planning of physical facilities (5) Medium- and long-term plan for installing physical facilities	DOH has used the recommendations to implemented Traffic Safety Master Plan since 1987.  DOH has used the giudelines of counter measures on traffic safety programme, too.	
7.OBJECTIVES OF STUDY					
8.DATE OF S/W	Feb.1983				·
9.CONSULTANT(S) International Engineeri Central Consultant, Inc Chodai Co., Ltd. Pacific Consultants Int	•	ŀ	4.CONDITIONS AND DEVELOPMENT IMPACTS  The effect of technical transfer is much larger than the direct effect of the project.		
10.STUDY TEAM  No.of Members 1: Period May.1983-De		onths)			
Total M/M	Japan	Field		2.MAJOR REA	SONS FOR PRESENT STATUS
54.50	10.50	44.00	·		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y				
12.EXPENDITURE			5.TECHNICAL TRANSFER		OURCE OF INFORMATION
Total Contracted	332, 142,	(,	1) Participation of the counterparts in the JICA training program 2) Gift of equipment (2 micro-commpters)	002	·

和名 道路交通安全計画

**ASE THA/S 206B/85** 

I. OUTLINI	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  Eastern Suburban Bangkok (study area of 260 sq.km) <m p=""> East suburban area of Bangkok (Study area of 100 sq.km) <f s=""></f></m>	1.PRESENT Completed or in Progress Promoting STATUS Completed	
	Protection/Drainage Suburban-Bangkok	2.PROJECT COST MP 1) 233, 333 Local 140, 740 Foreign Cost Cost	Partially Completed Delayed or Suspended  Implementing  Processing Discontinued or Cancelled	
3.SECTOR  Social Infrastructures/River & Erosion Control		(US\$1,000) (US\$1= 27 Bahts) F/S 1) 98,333 51,630 46,703 2) 3)	(Description)  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	
4.REFERENCE NO.		3.CONTENTS OF MAJOR PROJECT(S)  AM/P> The project aims to protect the area of 260 sq.km from floods coming from	Mar. 1991 by the Japanese grant.  (FY1993 Overseas Survey)	
5.TYPE OF STUDY 6.COUNTERPART AGENC	M/P+F/S	outer areas by construction of polder dykes and drain internal storm water by providing adequate drainage facilities. The proposed measures are as follows. (Structural measures)	The flood protection and drainage facilities were implemented in eastern suburban of Bangkok from 1988 to present such as pumpring stations, watergates, canal improvement etc.	
Dept.of Drainage and Sewerage, Bangkok Metropolitan Administration		Polder dyke (62km), qate (55 places), 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		
7.OBJECTIVES OF STUDY To evlauate the feasib drainage facilities		<pre> <f s=""> Facilities</f></pre>		
8.DATE OF S/W 9.CONSULTANT(S)	Nov.1982			
Pacific Consultants In Tokyo Engineering Cons		Imp. Period: Apr.1987-Mar.1992  4.FEASIBILITY AND Feasibility: EIRR1) 20.20 FIRR1) TIS ASSUMPTIONS Yes EIRR2) FIRR2)		
a count IPAS THE A 3 s		FIRR3)		
[	] 12 Teb.1986(32 months)	Conditions and Development Impacts: <pre> <pre> <pre> <pre> </pre> Flood damage mitigation. The area of 260 sq.km will be completely protected from outer floods and inner storm rainfall will be fully controlled for 5-year probability rainfall. As a resuct, flood damage reducton on the buildings, properties, traffic, electricity and telecommuncation, and land use enhancement are much expected. </pre></pre></pre>		
Total M/M	Japan Field	₹/S> • Drainage facilities are to be improved based on the result of floods	2.MAJOR REASONS FOR PRESENT STATUS	
115.00 11.ASSOCIATED AND/OR SUBCONTRACTED STUI	1	which occurred in 1983. It used to take 2 or 3 months to recover. But now it takes only 3 days to 1 week. The development impact is great.		
Geological survey		E TOOLDIIG AV DO ANGETO		
12.EXPENDITURE Total	487,871 (¥'000)	5.TECHNICAL TRANSFER  Technical advice on flood control operation, drainage facilities management/ operation.	3.PRINCIPAL SOURCE OF INFORMATION	
Contracted	331,729	Overseas training for counterpart staff.	00	

ASE THA/S 316/85

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  10 towns and villages in the North-East	tern region of Thailand	1.PRESENT STATUS	☐ Completed or in Progress ☐ Promoting ☐ Completed
	! er Works Project in the				O Partially Completed Delayed or Suspended
North - Eastern Regio		(US\$1,000) 1)	Total Cost Local Cost Foreign Cost 6,463 3,080 3,383		O Implementing O Processing Discontinued or Cancelled
		(US\$1=27.0B) 2)		(Description)	
3.SECTOR		2 CONTENTS OF MAJOR PROJECTES		The project	implementation for respective sanitary district may be
Public Utilities/Timber	Processing	3.CONTENTS OF MAJOR PROJECT(S)  The main purpose of the project is to	provide an improved living standard for the	1	their own budget sources.
4.REFERENCE NO.		local people through a stabilized water	supply in the Sanitary District areas. With expected that the urban activity in the areas.	(FY1993 Oversea The water wo	s survey) rks in each town were put in the ordinary budget of the r supply development division.
5.TYPE OF STUDY	F/S	which would have the characteristics in encouraged to grow vigorously in future	n-between of "Urban" and "Rural", will be	The projects	proposed in the study are in lower priority of each town.
6.COUNTERPART AGENC	Y	Summary of the proposed project is tak Sub-project Name Served Max.Capac	ity Major Facility		
Department of Public Wo Interior	orks, (DPW) Ministry of	Nong Bua Lai 4,500 675 Huai Thalaeng 13,300 1,995 Nong Ki 16,900 2,535	RSFP 1.0 unit, D.pipe 10.5km RSFP 1.0 unit, D.pipe 6.91km RSFP 1.0 unit, D.pipe 12.3km RSFP 1.0 unit, D.pipe 25.6km		
7.OBJECTIVES OF STUDY		Khun Han 5,000 750	RSFP 1.0 unit, D.pipe 9.0km RSFP 1.0 unit, D.pipe 6.7km		
Stable supply of clear	water to the area.	Phon Charcen 10,600 1,580 Nong Song Hong 8,600 1,290 Huai Kha Yung 4,900 735	ASFP 1.0 unit, D.pipe 9.2km RSFP 1.0 unit, D.pipe 12.1km RSFP 1.0 unit, D.pipe 13.2km RSFP 1.0 unit, D.pipe 13.5km at, ASFT-Aeration Sand Filteration Plant		
·					· ·
8.DATE OF S/W	Jul.1984	Imp. Period: Oct.1986-May.1989		]	
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility:	EIRR1) FIRR1) EIRR2) FIRR2)		
Sanyu Consultants Inc.	4	ITS ASSUMPTIONS Yes	EIRR2) FIRR2) EIRR3)		
		Conditions and Development Imparas preconditions, samples of F/S were	cis:		
10.STUDY TEAM		itour where the provincial office is, the	t of the water works is to be conducted in the he execution and benefit from this kind of		
		project exerts much influence not only	on the town but on surrounding districts.		
No.of Members 5	eb.1986(16.5 months)	* Above FIRR is 6 - 84.			
renod Oct. 1984-19	eD.1966(16.3 monens)		•		
Total M/M	Japan Field			2.MAJOR RE	ASONS FOR PRESENT STATUS
48.60	22.50 26.10		(FW 1003 Demontés Cu-tra)	The project is	executed by the respective sanitary district organization.
11.ASSOCIATED AND/OR			(FY 1993 Domestic Survey)		
SUBCONTRACTED STUD	Ţ				
		5.TECHNICAL TRANSFER			
12.EXPENDITURE		Acceptance of 2 trainees from the local	1 counterpart	3.PRINCIPAL	SOURCE OF INFORMATION
Total	134,763 (¥'000)			<u>0</u> 2	Company of the Compan
Contracted	126,639			1 .	

ASE THA/S 317/85

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Road Development in the Region (Phase 2)	Thailand the North - Eastern	1.SITE OR AREA Northeaster Region  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) (US\$1,000) 2)	1.PRESENT   Completed or in Progress   Promoting
3.SECTOR Transportation/Fish Processing  4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Dept. of Highways, Ministry of Communications  7.OBJECTIVES OF STUDY Feasibility analysis of new construction, improvement and rehabilitation of roads		3)  3.CONTENTS OF MAJOR PROJECT(S)  (1) New construction and improvement Total 502.1km: 1)A. Khong ~ J.R.2180 46.8km; 2)A. Chonnabot ~ B. Dong Han 24.0km; 3)A. 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 Chaia ~ A. Kho Wang 24.5km; 11)B. Sem Poi Noi ~ B. Muang Mak 28.4km; 12)A. Chom Phra — B. Nong Khawao 31.1km; 13)A. Parakhon Chai ~ A. Krasang 47.1km; 14)B. Nong Pha Cng ~ A. Nong Ki 52.6km; 15}A. Si Khiu(J.R.2) ~ A. Chok Chai 51.4km. (2) Rehabilitation 8 routes (90km) 16)A.Sikhui ~ A.Dan Khun Thot 19km: 17)A.Prathai ~ A.Khok Chik 10km 18)A.Kalasin ~ B.Lum Chai 10km: 19)A.Pak Thong Chai ~ J.R.2 13km 20)B.Nam Kong ~ A.Si That 8km; 21)A.Chokchai ~ A.Khonburi 10km	(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.  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 OECF loan agreement (Highway Sector Project (2), 2,184 million yen)  Major Component: 1 Provincial Road 2 Local Roads  (FY 1991 Overseas Survey)  IBRD Loan: L/A in 1990. US\$100 million. Construction: 1988-1994
		22)B.Wat - A.Kong 10km:  23)Nakhon Ratchasima - A.Chokhcai 10km  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.	(FY 1992 Overseas Survey) For this project, OECF loan (472.51 million bahts), World Bank loan (406.48 million bahts) and DOM budget (425.04 million bahts) were appropriated.
9.CONSULTANT(S) Katahira & Engineers In Nippon Koei Co., Ltd.	Mar.1984 ternational	Imp. Period: Jan. 1985-Dec. 1987  4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts:  Direct effects:  1) Decrease of transportation costs to road users 2) Increase of value added of agricultural produce 3) Saving of road maintenance costs	
No.of Members 12 Period Jun, 1984-Ju	2 ul.1985(11 months)	Social impacts: 1) Improved access to administrative services 2) Improvement of educational standards 3) Improvement of medical services 4) Narrowing of income disparities  * Five sections with higher EIRRs are 2)22.2%, 15)19.7%, 13)17.1%,	
Total M/M 57.56	Japan         Field           5.00         52.56	8) 15.7%.	2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUD		5.TECHNICAL TRANSFER	
12.EXPENDITURE Total Contracted	194,238 (¥'000) 183,479	1) OJT; 2) Participation of the counterparts in the JICA training program; 3) Employment of local consultants; 4) Gift of equipment and technical guidance	3.PRINCIPAL SOURCE OF INFORMATION  ①②③④

ASE THA/S 315/85

Compiled Mar.1988
Revised Mar.1994

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 Establishment of a La	rge Repair Shipyard	Laem Chabang	STATUS
3.SECTOR Transportation/Marine Transportatio	F/S	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 shipyard have jointly operated and going to invest shippard 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.
O DATE OF CAV	Oot 1082	Imp. Period: Jan.1986-Mar.1990	
8.DATE OF S/W  9.CONSULTANT(S)  Overseas Ships Building	Oct.1982 Cooperation Center	Imp. Period: Jan.1986-Mar.1990  4.FEASIBILITY AND Feasibility: EIRR1) 11.40 FIRR1) 5.80 FINAL ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)	
10.STUDY TEAM  No.of Members 9  Period Jul.1984-Ma	ay.1985(11 months)	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.	
<b>Total M/M</b> 51.00	Japan         Fie           28.00         23.		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUD			
12.EXPENDITURE Total Contracted	146,390 (¥°00 158,523	5.TECHNICAL TRANSFER  1) Participation of one counterpart in the JICA training program 2) Employment of local consultants	3.PRINCIPAL SOURCE OF INFORMATION  ①②

和名船舶修理ヤード建設計画

#### ASE THA/A 310/85

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
2.NAME OF STUDY	Thailand Facilities Development	1.SITE OR AREA  Whole country  2.PROJECT COST  (US\$1,000)  US\$1,000)  US\$1=202.83Yen in Dec.1984  Total Cost Local Cost Foreign Cos 21,167  20,96	2 O Processing Discontinued or Cancelled
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Public Warehouse Organi 7.OBJECTIVES OF STUDY	zation (PWO)	3)  3.CONTENTS OF MAJOR PROJECT(S)  1. Warehouse construction:     State level - 10 sites     Local level - 5 sites     Seaport Warehouse - 1 site at Laem Chabang  2. Improvement on processing and loading facilities for shipping exportable rice:     River cort - 2 sites (Nonthaburi, Rajburana)     Deep sea port - 1 site (Laem Chabang)  3. Grain reprocessing facility: 6 sites  4. Storage technology improvement and training center construction:     1 site (Nonthaburi)  * Project costs above are in Dec.1984 prices.	(Description)  In 1986, Thai government drastically revised the rice marketing policy and abolished the conventional government procurement at support prices. As a result, the operational scale of Public Warehouse Organization (PWO) was radically reduced. On the other hand, the government has been implementing the development of the port at Laem Chabang and planned to construct integrated facilities for collecting, processing and exporting agricultural products in the area behind the port. The government at one time considered the possibility of including the loading facilities for export rice in the area, but the idea did not materialize.  The rice exports have long been made from the river ports in Bangkok city, and the construction of modern facilities are underway by private companies.  The exports of Thai rice reached 5.7 million tons in 1989. Further rationalization of rice marketing and modernization of marketing facilities are strongly desired by both the government and private organization.  (FY1993 Overseas Survey)  Thereason of discontinuation is because many government agencies joined rice export programme. It lowered PWO's rank as a rice exporter.
8.DATE OF S/W 9.CONSULTANT(S) Overseas Merchandise In Sanyu Consultants Inc.  10.STUDY TEAM No.of Members 1.1 Period Feb.1984-Ju Total M/M 40.66  11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Japan Field 19.74 20.92	Imp. Period:  4.FEASIBILITY AND TYPES TO THE PROPERTY OF THE P	ng q
12.EXPENDITURE Total Contracted	122, 940 <b>(¥'000)</b> 114, 782	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION  © ②