ASE PHL/S 206B/89

Compiled Mar.1991 Revised Mar.1994

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS					III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Flood Control and Di	Philippines cainage Project in Metro	1.SITE OR AREA  Netro manira and its Naighboring Area 1.East and West of Mangahan 2.Marabon	, about 981sq.k -Navotas 3.Pasi	m in total <m p=""> g-Marikina River<f s=""></f></m>		1.PRESENT STATUS	Completed or in Progress Completed Partially Completed	☐ Promoting ☐ Delayed or Suspended	
Manila	aringe rroject in here	(US\$1,000) 2)	4,883 Local Cost 2,000	Foreign Cost 35, 400	96, 600		<ul><li>Implementing</li><li>Processing</li></ul>	Discontinued or Cancelled	
3.SECTOR Social Infrastructures/R	liver & Erosion Control	2) 5	2,400 5,800	16,600 22,300	35,800 43,500	Plan 1987 - 199	y projects were incorporated into 92. (FY199 Overseas Survey)		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENO Dept. of Public Works		<m p=""> Master plan consists of the flo and the drainage improvement for the and its neighboring area. Flood con passing through the core of Metro Man of Marikina Dam and Marikina Control river channel improvement. Over three Malabon-Tullahan and South Paranaque- improvement. As for the drainage syst channel was fundamentally applied. In of Mangahan areas, the coastal dike a</m>	od control for eight inland ar trol in the Pas ila, consists o Gate Structure (Rivers such as Las-Pinas consiem by pumping s Malabon-Nabota	eas in Metro Manila ig-Marikina River, f the construction MCGS) as well as the Bili-Baho-Mahaba, sts of river channel tation and drainage s and East and West		has been include Feb.1990 OF Feb.1993 D. GOP is planning FY1991 Oversee	e projects, the Drainage Improvem ded in the 16th OECF Yen Credit fect L/A signed (E/S 454 million y/D completed ing to apply for an OECF loan for as Survey) project was included in the medi	or engineering services.  ven)  project implementation.	
drainage improvement	plan of flood control and	of Mangahan areas, the coastal dike and lake dike is provided along the shoreline. <pre> <f s="">1.Drainage Improvement in East and West of Mangahan.    -Lake Dike; 10,700m in total length</f></pre>				Implementation assistance of For Grant-aid Accomplishment: 1) Large Ester 2) Small Ester 3) Drainage Ma	and Drainage Project in Metro Mar of drainage project is currently JICA through its Grant-aid potion potion: the components and its of s are as follows: o Dredging, 78.89% o Dredging, 31.41% in/Outfall, 46.82%	/ being undertaken with the a, and financed OECF potion	
8.DATE OF S/W  9.CONSULTANT(S)  CTI Engineering Co., 1	Jul.1987 .td.	-Marikina Control Gate Structure (MCGS); 1 place * EIRR 1) is for East and West Mangahan, EIRR 2) for Malabon - Navotas, and EIRR 3) for Pasig - Marikina.				4) Drainage Laterals, 77.45% For OECF potion: contract for package A approved on 27 August 1993 while Package B approved on 22 September 7, and 28, 1993 respectively for concurrence.			
Nippon Koei Co., Ltd.		Imp. Period: .19912000  4.FEASIBILITY AND Feasibility: Yes	EIRR1) EIRR2) EIRR3)	16.80 FIRR1) 15.90 FIRR2) 16.10 FIRR3)					
	14 Mar.1990(27 months)	Conditions and Development Imp Conditions: The target year of M/P is Three priority projects are schedule The design safety of each project is 1) East and West Mangahan: 5 ye 2) Malabon - Navotas : 5 ye 3) Pasig - Marikina : 100 y	2020, and F/S d to be complet as follows. ars <m p,f="" s=""> ars <m p,f="" s=""></m></m>	ed in the year 2000.		: :			
Total M/M 123.94		The design safety of the Pasiq-Mar that of the master plan, because the Development Impacts:	ikina River Imp former excludes	provement is lower than the Marikina Dam.			ASONS FOR PRESENT STAT		
il.ASSOCIATED AND/OF SUBCONTRACTED STU Longitudinel and Cross Se	DY octional Survey of Rivers and	<pre><m p="">Impacts: The drastic decrease of flood &amp; drainage damage can be expected. <f s=""> Three projects cover the areas in Metro Manila which are most seriously affected by floods and drainage problems. Their implementation will substantially lessen the damages caused by chronic flooding.</f></m></pre>				in 1986 and	y the flooding of the lake.	. Seriousty manuactor to to	
Installation of Rain Gauge 12.EXPENDITURE Total Contracted	366,706 (¥'000)	5.TECHNICAL TRANSFER  Guidance and training on hydrologis methods of equipment and Data filing		a, operation and maintena		3.PRINCIPAL	SOURCE OF INFORMATION		

ASE PHL/S 205B/89

Compiled Mar.1991 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY 2.NAME OF STUDY Groundwater Developme	Philippines ent in Panay Island	1.SITE OR AREA  13 towns in Panay Island (Malay, Ibajay, Bonga, Kalibo, Ivisan, Pontevedra, Pilar, Sara, Lambunao, Leon, Miagao, Jordan, New Washington  2.PROJECT COST M/P 1) Local Foreign Cost Cost  (USS1,000) F/S 1) 4,960	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled		
3.SECTOR  Social Infrastructures/Wat  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  Local Water Utilities A  7.OBJECTIVES OF STUDY	M/P+F/S  dministration	2) 3)  3.CONTENTS OF MAJOR PROJECT(S)  M/P and F/S(13 selected municipalities) 1) Analysis of water resource potentials 2) Estimate on water requirements 3) Water resource development plans 4) Conceptual facility designs 5) Malay: Repair of water pipes & rehabilitation of the water supply system 6) Ibajai: More detailed electric investigation necessary 7) New Washington: Diversion from Kalibo needed to supply water 8) Kalibo: Exiting deep well to be used as a pilot well and a new deep well to be bored near Aguran River 9) Sanga: Immediate rehabilitation of existing facilities	(Description)  Part of the proposals are being implemented by the Japanese Grant Aid Program.  Jul.1990 E/N signed (Regional Environmental Public Health, 1 billion yen)  Aug.1991 E/N signed (Rigional Environmental Public Health, 0.65 billion yen)  (FY 1993 Overseas Survey) Ground water Development in Panay Island  Some detailed design completed by LWUA. Out of 13 selected municipalities, Potevedra has completed in 1991, Ibajay, Leon, Miagao, Jordan will have been completed in the mid 1994, New washington in corporation with Kalibo will have been requested to the OECF finance for construction, Malay has under the re-study on water resource.  Other municipalities have shown no communication with LWUA. Because neither the areas have satisfied at present nor do wish to establish a water district.		
Assessment of Dependable for Water Supply		10) Ivisan: Detailed surface investigation & horizontal boring needed 11) Pontevedra: Organization of water users' associations and formulation of a development plan 12) Pilar: Detailed surface investigation & horizontal boring needed 13) Sara: Horizontal boring needed to increase water supply 14) Lambunao: Infiltrated water of Urian River to be developed as a water source 15) Leon: Shibaron River to be developed as a water source 16) Miagao: A deep wellto be bored near Tomaquboku River			
8.DATE OF S/W 9.CONSULTANT(S) Nippon Jogesuido Sekkei	Dec.1987 Co., Ltd.	Imp. Period:  4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR3) FIRR3)			
No.of Members 6 Period Mar.1988-No.	ov.1989(20 months)	Conditions and Development Impacts:  Planning Conditions:  1) Primary water source should be groundwater, Springs and infitrated river water are second best options:  2) A new water supply system is built for municipalities without any: only improvement and proposed for others  3) Target year is 1995 (as agread upon by LUWA)			
Total M/M 47.51 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY		<ul> <li>3) Water Districts will be formed in accordance with the Provincial         Water Act</li> <li>5) Central government subsidies or soft loans are available</li> <li>6) More detailed F/S is needed for implementation         Development Impacts:         Stable and low-cost supply of safe drinking water will contribute to         the social stability, improvement of health and reduction of housework         related to water supply, and thereby to the increase of productivity.</li> </ul>	2.MAJOR REASONS FOR PRESENT STATUS		
12.EXPENDITURE Total Contracted	269, 387 <b>(¥'000</b> ) 142, 350	5.TECHNICAL TRANSFER  Training (including OJT) was provided regarding groundwater resource survey with data analysis and water well construction management.	3.PRINCIPAL SOURCE OF INFORMATION  ①③		

和名 バナイ島地下水開発計画

#### ASE PHL/A 201B/89

Compiled Mar. 1991 Revised Mar. 1994

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Integrated Agricultura in Marinduque	Philippines al Development Project	1.SITE OR AREA  Entire Marinduque Main Island, Harinduque Province M/P> Santa Cruz Area in Marinduque Island<7/> 2.PROJECT COST M/P 1) 174,300 Local Foreign  (US\$1,000) 2) Cost Cost  F/S 1) 8,196	1.PRESENT   Completed or in Progress   Promoting		
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY	M/P+F/S	2) 3) 3.CONTENTS OF MAJOR PROJECT(S)  EM/P>1. <agricultural (the="" 80,500ha)="" development="" entire="" island="" of=""> Farm Technology and Management Development: Crop Projection Scheme: Animal Husbandry Development Plan: Agricultural Succort Scheme: Marinduque Agricultural Development Promotion Farm (MADPP)</agricultural>	(Description) <pre> <m r=""> <m r=""> <m r=""> <mr> <m r=""> <mr> <mr> <mr> <mr> <mr> <mr> <mr> <m< td=""></m<></mr></mr></mr></mr></mr></mr></mr></m></mr></m></m></m></pre>		
6.COUNTERPART AGENCY Marinduque Provincial Go	<u>l</u>	2. <agricultural improvement="" infrastructure=""> Irrigation Plan 3,810ha; Drainage and Flood Protection 3,690ha; Rural Roads 930km;Village Water Supply 2 places 3.<rural improvement="" infrastructure=""> Rural Water Supply 7 places:Mini- hydropower Development 4.40wH; Rural Electrification; Fransportation; Education and Welfare; Communications 4.<fishery development=""> Improvement of Brackish Water Fish Culture</fishery></rural></agricultural>	Sen. 1991 - 1992 Basic Design Mission Jul. 1992 E/N signed Jan. 1993 Construction started		
7.OBJECTIVES OF STUDY  Establishment of Master Plan on Agricultural  Development in Marinduque Island <m p="">  Pre-F/S study within the priority project  areas<f s=""></f></m>		Demonstration Farm: Development of Fresh Water Fish culture: Culture Programme of Coconut Crabs 5. <accelerated (madp?)="" agricultural="" development="" of="" project="">Agricultural Development: Agricultural Infrastructural Development: Rural Infrastructural Development; Aquaculture Development CF/S&gt;The short-term development plan was formulated for Taqum Angas District. 1.<agricultural development=""> -Strengthening of Marinduque Agricultural Development and Promotion Farm: 6.5ha -Rehabilitation of the cattle breeding center: 1,500 sq.m -DA municipal nurseries: (0.5ha) -Demonstration Farms: irrigated 10ha, rainfed 2ha -Post</agricultural></accelerated>			
8.DATE OF S/W  9.CONSULTANT(S)  Sanyu Consultants Inc.	Jul.1988	harvest facilities for rice and corn: storage sheds, dryers, rice mills 2. Agricultural Infrastructure Improvement> -Irrigation: area 630ha, canals 25km - Rural Road: 25km - Village water supply: 1 place, pipelines 25km 3. Kaural Infrastructure Emprovement> -Rural electrification -Transportation system development -Improvement			
Chuo Kaihatsu Cor.		Imp. Period: .19911992  4.FEASIBILITY AND Feasibility: EIRR1) 17.00 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)			
10.STUDY TEAM No.of Members 10 Period Nov. 1988-No	•	Conditions and Development Impacts: <pre> </pre> <pre> <pre< td=""><td></td></pre<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></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 49.00 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY		<pre><f s=""><conditions>— Expansion of effective irrigation (no new development) — Improvement of farming technologies — Project life of 30 years CDevelopment Imposts&gt; — Paddy production will increase from 829 tons to 3,955 tons.— Improvement of cattle and buffalo breeds and increase of livestock production — Increased traffic, including harvested agricultural produce Measureable benefits from the project will reach 82.9 million pesos . (agriculture 67.3 million, rural roads 4 million, rural water supply 1.3 million, rural electrification 1.7 million, fisheries 8.6 million)</conditions></f></pre>	2.MAJOR REASONS FOR PRESENT STATUS		
12.EXPENDITURE  Total  Contracted	202,380 <b>(¥'000)</b> 151,037	5.TECHNICAL TRANSFER  Training in Japan (One Official of Marinduque Province)	3.PRINCIPAL SOURCE OF INFORMATION  023		

ASE PHL/S 322/89

Compiled Mar.1991 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Rehabilitation and Ma along Arterial Roads	Philippines	1.SITE OR AREA Lozon Samar and Leyte islands (Pan-Philippine HWY, Manila North Road)  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 43,101 13,982 29,119 2)	1.PRESENT STATUS Completed or in Progress Promoting  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 AGENCE Department of Public Wo	F/S Y rks and Highways(DPWH)	3)  3.CONTENTS OF MAJOR PROJECT(S)  52 bridges are selected among 99 bridges, taking the technical conditions and socio-economic circumstances into consideration.  1. Reconstruction 12 2. Replacement of Superstructure 15 3. Repair 25 total 52 Brs.  - The bridge type and length are as follows: Bridge Type Unit length(m) Steel Bridge Truss 10 3,220 SIB 13 1,088 Steel box 1 177 Concrete Bridge RCDG 13 300 PCDG 11 1,291	(Description)  (FY1992 Overseas Survey)  At the OECF Appraisal Mission in June 1989, it was decided to avoid overlapping with another OECF-financed project(Pan-Philippine Righway Improvement), and the number of bridges was reduced from 52 to 41.  Feb.1990 16th OECF Loan(PH-P104)L/A signed(Rehab. of Bridges along Arterial Roads (I) 2,079 million yen)  Project: Reconstruction of 7 bridges, replacement of 13 bridges, and repair of 17 bridges.  Nov.1990 - Apr.1992 Detailed design completed(Nippon Koei, Katahira & Engineers, TCGI)  Total investment 694.7 million pesos(foreign currency 306.8 million, local currency 387.9 million)  Apr.1992 Construction of six bridges commenced(scheduled to be completed in July 1994)  Jul.1991 17th OECF Loan (PH-P115)L/A signed(Rehab. of Bridges along		
7.OBJECTIVES OF STUDY Bridge Rehabilitation p Bridge Data Base Bridge Inspection and M	rogram	Concrete Slab 4 77 Total 52 6,153	Arterial Roads (II)2,065 million yea) Project: Reconstruction and widening of 4 bridges located between northern Metro Manila and La Union Province.  Apr.1992 - Jun.1992 Detailed design completed(Nippon Koei, Katahira & Engineers, TCGI) Total investment 699.3 million pesos(foreign currency 340.0 million, local currency 359.3 million) Jun.1992 Construction commenced (scheduled to be completed in June 1994) (FY1993 Overseas Survey)		
8.DATE OF S/W 9.CONSULTANT(S) Nippon Koei Co., Ltd. AIMEC Corporation	Apr.1987	Imp. Period: Dec.1990-Dec.1995  4.FEASIBILITY AND Feasibility: EIRR1) 55.69 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)  Conditions and Development Impacts: [Conditions] - Traffic forecast is based on review of the survey results carried out by DFWH in 1986 Design criteria such as design line loads and structural specification are in accordance with NSCP.	The proposed projects have been under implementation with OECF finance.  1) Phase 1:36 bridges, including rehabilitation/reconstruction of 10 bridges and repair of 17 bridges.  D/D conducted during Nov.1990 - Apr.1992, and construction began in Apr.1992 to be completed in July 1994.  Total investment cost: 731.4 million pesos (foreign currency 272.4 million pesos equiv); loca currency 459 million pesos)  2) Phase 2: Reconstruction of 3 bridges  D/D conducted during Apr July 1992, and construction began in July 1992 to be completed in Feb.1995.  Total investment cost: 612.3 million pesos (foreign currency 183.9 million pesos equiv.:local currency 428.4 million pesos)  3) Phase 3: Construction of 9 bridges out of 20 candidates  Now under consideration for the 19th Yen Credit application. Construction to		
No.of Members 9	in.1989(19.5 months)	[Development Impacts] - Prevent the existing bridge form river flood damage - Improve junctioning and durability of bridge, then prevent bridge collapse - Maintain traffic network	start in May 1994 and to be completed in May 1996. Total investment cost: 1.478.87 million pesos (foreign currency 1,203.65 million pesos equiv.: local currency 275.22 millin pesos)		
Total M/M	Japan Field	- Establish systematic organization	2.MAJOR REASONS FOR PRESENT STATUS		
68.08  11.ASSOCIATED AND/OR  SUBCONTRACTED STUD'  1.Topographic Survey, 1988  2.Geotechnical Survey, 1988	<u></u>	5.TECHNICAL TRANSFER	A number of major bridge have been obsolete and structurally weak for increasing traffic volume and heavier loads. GOP has given high priority to their rehabilitation to ensure transport efficiency and protect the investments already made.		
12.EXPENDITURE Total Contracted	214,117 <b>(¥'000)</b> 208,344	1.Trainee, Mr.Matanquihan Edwin Cueras, Bureau of Design, DPWH, Participated in the training course of bridge engineering in Japan. (1988.8.17 - 1988.11.4) 2.Lecture concerning bridge data base and its operation was carried ot during Feasibility Study.	3.PRINCIPAL SOURCE OF INFORMATION  ①230		

#### ASE PHL/A 106/90

Compiled Mar.1992 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY 2.NAME OF STUDY	Philippines	1.SITE OR AREA Southern Tarlac Province	1.PRESENT ☐ In Progress or In Use ☐ Delayed		
Improvement of Commun through Physical and Development and Rural Development in Southe	Institutional	2.PROJECT COST	Discontinued  (Description)  In June 1990, when M/P and F/S were completed and priority components were being prepared for implementation, the eruption of Mt. Pinatubo buried the		
3.SECTOR		2)	rivers and neighboring areas were covered by ashes to a depth of 10 - 20cm.		
Agriculture/General		3.CONTENTS OF MAJOR PROJECT(S)	(FY1991 Overseas Survey) The Study Area was affected by the eruption, and Banban River as the major source of water for irrigation was buried under the debris. The NIA is keen		
4.REFERENCE NO.		<ol> <li>Agricultural Infrastructure Improvement</li> <li>Irrigation Facilities Improvement</li> <li>Canals 37km, Diversion Dam Improvement 10 units, Groundwater Collecting</li> </ol>	to construct the groundwater collection conduits, and hoping for a re-study by JICA.		
5.TYPE OF STUDY	M/P	Conduits 4 units, Shallow Wells 271 units b) Drainage Developemnt 4km	JICA is preparing an assistance project for the restoration of the eruption-affected areas, but with emphasis on potable water supply facilities		
6.COUNTERPART AGENCY National Irrigation Adm		2) Farm Road Improvement Barangay Roads 53km, Farm-to-Market Roads 58km 3) Agricultural Development Farming Technology Demonstration Farm : 1: farms Seed Multiplication Station : 1 station 4) Institutional Development (farmers' organizations)	rather than irrigation development.		
7.OBJECTIVES OF STUDY		Supports for Strengthening IAs Supports for MFIAs, FIAs and CISs			
Master Plan Study on Imp Irrigation Systems	provement of Communal				
8.DATE OF S/W	Feb.1989				
9.CONSULTANT(S)		4.CONDITIONS AND DEVELOPMENT IMPACTS			
Sanyu Consultants Inc. Nippon Giken Inc.		<ul> <li>The rivers in the Study Area have no watersned management and erosion control.</li> <li>Annual rainfall in the Study Area is 1,900mm and the precipitation is mostly concentrated in the wet season.</li> <li>Inundation occurs often in the flat areas, particularly in the Eastern-most area along Chico River.</li> <li>By introducing water collecting conduits and pumps for shallow wells, the cropping intensity of 172% can be realized over 9,800hm of farm land.</li> <li>By establishing post-harvest facilities for paddy, the prevailing loss ratio of</li> </ul>	·		
10.STUDY TEAM	•	16.3% could be reduced to 10.5% only.  - The improvement of farm roads will reduce transportation costs.	· ·		
No.of Members 10	)	- IRR is calculated at 18%.			
Period Aug.1989-Au	ig.1990(13 months)				
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS		
:50.90	23.75 27.15				
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY * Inventory: 397 (¥1,000) * Field survey: 2,239 (¥1,	Y				
* Construction of		5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION		
12.EXPENDITURE Total	156, 075 (¥'000)	Through the field survay, transfer was achieved especially on the survey	023		
Contracted	142,164	investigation and planning method for project formulation.			

ASE PHL/S 323/90

Compiled Mar. 1992 Revised Mar. 1994

I. OUTLINE OF STUDY		II. SUMMARY OI	F STUDY RES	SULTS		III. PRE	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY PR 2.NAME OF STUDY Rural Road Network Deve	nilippines	1.SITE OR AREA 73 provinces in Philippines (F/S was conducted as pilot study in 4  2.PROJECT COST (US\$1,000)  1) 2)		Local Cost	Foreign Cost	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 Transportation/Fish Processin  4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Department of Public Works  7.OBJECTIVES OF STUDY	c/S s and Highways (DPWH)	3) 3.CONTENTS OF MAJOR PROJECT(S) In order to improve on the findings the present phase 2 study selected 11 plan and analyzed the feasibility of the sections with IRRs of more than 15% are the rest for later implementation.	of the phase 1 stud provinces and identi the proposed major and recommended for est Roads 8km 6km grade surfacing was	ified the basic nd minor roads. arlier implemen s surveyed, and ent study made	road retwork Those road tation, and on the basis	GOP requested t provinces (6 pr yen credit was included three by the RRNDP-II GOP has reque another 20 prov Aqusan del Nort (FY1993 Oversea The package o Credit Program later given low responsibility Code and (ii) t	sted the 19th OECF finance for tinces (6 provincesfro PRNDR-II, e, and 13 provinces from SAPROF) s Survey) f rural roads in 20 provinces waapplication, and approved by NEE er priority because of (i) the cof implementation in accordance he presence of other higher prices	cads improvement in 20 rovinces from the SAPROF). OECF 191 for four provinces, which the eleven provinces studied he rural roads improvement in
Conduct a F/S on the devel network	lopment of a rural road					Under the new jurisdiction of construction and to the Local Go Interior and Lo institutional a responsibilitie LGUs and the projects, using	Local Government Code, national the Dept. of Public Works and Ed maintenence of provincial and vernment Units (LGU) under super cal Government (DILG). The Governd budgetary arrangements for the S.  National Government are coordinated by the country such local funds as the country such local funds as the country the province of the country such local funds as the country that the country the country that the cou	roads are under the ciqhways (DPWH), while other local roads are devolved vision of the Dept., of transent is now studying the delineation of the priority sting about some of the priority
8.DATE OF S/W Ap	or.1989	Imp. Period: .19911995	**************************************			Internal Revenu	e allotments of LGUs.	
9.CONSULTANT(S)  Katahira & Engineers Inter Nippon Engineering Consult		4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes	EIRR1) EIRR2) EIRR3)	FIRR1) FIRR2) FIRR3)		·		
10 CENTRAL TECAM		Conditions and Development Impactonditions:  The benefits taken into account were development benefit, and road maintenation (from 1993 to 2017).	the traffic benefit	t, the agricult roject life is	ural 25 years,	:		
No.of Members 10 Period Oct.1989-Oct.	.1990(13 months)	The development impacts:  The all-weather road will be constructed to the economic development employment directly, which are the tare	in the rural areas	and the increa	ld se of			
Total M/M	Japan Field					2.MAJOR RE	ASONS FOR PRESENT STAT	US
60.26	58.66 1.06							muneamit
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Socioeconomic survey Traffic counts survey								
Road inventory survey 12.EXPENDITURE		5.TECHNICAL TRANSFER  1. Accepting of contempart trainess	]			3.PRINCIPAL	SOURCE OF INFORMATION	
Total Contracted	277, 593 <b>(¥'000)</b> 289, 000	2. Utilization of local consultants		and the state of t		023		

ASE PHL/A 315/90

Compiled Mar. 1992 Revised Mar. 1994

I. OUTLINE	OF STUDY	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY	Philippines	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY Integrated Jala-Jala	Rural Development	Jala Jala Municipality (4,930ha) of Rizar Province, located 75km southeast of Manila	STATUS Completed O Partially Completed Delayed or Suspended
Project		2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 27,400 11,000 6,400 2)	● Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR Agriculture/General	<del></del>	3) 3.CONTENTS OF MAJOR PROJECT(S)	(Description)  The project cost estimated by the JICA study exceeded the cost ceiling for the Japanese grant aid program. Subsequently, GOP prioritized project components for the grant approval.
4.REFERENCE NO.	<del> </del>	The Study prepared a development plan to support farmers who had been inluded in the land reform in Jala Jala Municipality. The plan objectives were early creation of self-reliant farmers, increase in labor productivity and reduction of disparities and achievement of local foof self-sufficiency.	CC: 1997 E/V BICURG (35.3% 17110% Agu)
5.TYPE OF STUDY 6.COUNTERPART AGENCY	F/S	1. Intensive Agriculture: 11 villages, 3,800ha	OCt.~Nov.1992 D/D completed (Final total project cost 1,137 million ven) Mar.1993~Mar.1994 Construction scheduled
Department of Agrarian		<ol> <li>Farm Mechanization: tractors, threshers, power sorayers, rice mills</li> <li>Irriqation: 13 systems (paddy 950ha, upland props 210ha)</li> <li>Drainage: main canals 11.2km, branch canals 39.3km, pulvorts 70 locations</li> <li>Roads: trunk roads 18.1km, feeder roads 46km. farm roads 9.6km</li> <li>Rural Electrification: power transmission line (3-phase)23km, distribution line 8.6km</li> </ol>	
7.OBJECTIVES OF STUDY		7. Rural Water Supply: 16 level-I deep wells. 4 level-II deep wells, 2 springs 8. Rural Development Center: facilities for farmer training, extension services on	
To formulate an integra project	ted rural development	agriculture and home economics	
8.DATE OF S/W	Apr.1989	Imp. Period: Jan.1991-Oct.1994	
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility: EIRRI) 14.40 FIRRI)	
Nippon Koei Co., Ltd. Chuo Kaihatsu Cor.		TIS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3)	
		Conditions and Development Impacts: Conditions: 1. Diversification (upland crops 260ha, small plantations 850ha, fruits 600ha) and intensification (paddy double cropping 950ha) over the area of 2,690 ha 2. Consolidation of communal systems and concentrated development of 9 village-wise	
10.STUDY TEAM		irrigation systems (650ha) to enable year-round irrigation Major Development Impacts:	
No.of Members 9 Period Sep.1989-Se	ep.1990(13 months)	<ol> <li>Four-hold increase in paddy output (production 6,000 tons, local consumption 3,000 tons, and a surplus of 3,000 tons in the year 2000)</li> <li>Fruits (citrus 3,850 tons, mango 2,100 tons) will be used as materials for local agro-industries or marketed in Manila as fresh fruits.</li> <li>Production of beef and pork will be doubled partly utilizing agricultural residues as animal feeds.</li> </ol>	
Total M/M	Japan Field	<ol> <li>Total benefits of the project after deducting the "without project" benefits come to 143.1 billion pesos (18.4 from paddy , 13.9 from upland crops, 4.1 from</li> </ol>	2.MAJOR REASONS FOR PRESENT STATUS
54.00	21.00 33.00	fruits, 4.4 from livestock and the remainder from infrastructural development). 5. Increases of annual farming household income will range from 6 to 33.8 million	
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY - Farm economy survey - Topographic survey	_	pesos (three- to ten-hold increases).	
- Geo-hydrological investic	gation	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
12 EXPENDITURE Total	188, 616 (Y'000)	Technology transfer counterparts in the course of the study.	
Contracted	145, 459		023

ASE PHL/A 316/90

Compiled Mar.1992 Revised Mar.1994

I. OUTLINE	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Improvement of Seed Education, and Est Appropriate Seed Store	tablishment of	1.SITE OR AREA  Philippines  2.PROJECT COST  (US\$1,000)  US\$1=27.5peso  Total Cost 1) 12,479 3,049 9,430	1.PRESENT   Completed or in Progress   Promoting		
_	nt of seed production and	3)  3.CONTENTS OF MAJOR PROJECT(S)  The Study formulated model seed production and distribution projects for the selected areas of Region II (peanut), Region VI (Paddy) and Region XI (maize). In addition to the model projects, it will be necessary to establish an urgent improvement plan by examining the degrees of project and the impacts of individual project implementation.  1) Region II (Project cost: 86,682,000 mesos)  - Ilaquan E.S. irrigation system development  - Seed processing machinery and facilities  - Leboratory and storage  2) Region VI (Project cost: 136,291,000 mesos)  - Seed processing machinery and facilities  - Laboratory and storage  3) Region XI (Project cost: 120,195,000 mesos)  - Davao NCC irrigation system development  - Improvement of on-farm roads and farm roads  - Seed processing machinery and facilities  - Laboratory and storage	(Description)  (FY1991 Overseas Survey)  The scale of the projects has been reduced. Local production and distribution of seeds is inadequate for peanut, but relatively advanced for marze owing to the private sector involvement.  The preliminary survey mission of the Japanese Grant Aid Program visited the project sites to study peace and order situations. Subsequently, the basic design study (rice seeds only) was undertaken from July 1992 to Feb. 1993.		
8.DATE OF S/W  9.CONSULTANT(S)  Nippon Koei Co., Ltd.  system Science Consulta  10.STUDY TEAM  No.of Members 8  Period Nov.1989-De  Total M/M  46.81  11.ASSOCIATED AND/OR  SUBCONTRACTED STUD	ec.1990(11 months)  Japan Field  18.00 28.81	Imp. Period: .19931999  4.FEASIBILITY AND Feasibility: EIRR1) 3.30 FIRR1)  TIS ASSUMPTIONS Yes EIRR2) 32.80 FIRR2)  EIRR3) 25.30 FIRR3)  Conditions and Development Impacts:  conditions:  - Period of economic evaluation is set at 20 years, based on the life period of facilities.  - Economic costs of tradable goods are coverted from the financial costs, using conversion factors by sector.  - Economic costs of non-tradable goods are obtained by the conversion factor of 0.8.  - Labor costs are obtained from consumption by the conversion factor of 0.65.  Development Impacts:  - The establishment of the seed production and distribution systems will ensure increased supply of certified seeds.  - Surplus seeds will be supplied to outside regions, and the buffer stock of seeds could be distributed in emergencies.  - Increased supply of quality seeds will raise the production of crops, which in turn will stimulate the growth of agro-industrial production and employment.	2.MAJOR REASONS FOR PRESENT STATUS		
12.EXPENDITURE Total Contracted	140,815 <b>(Y'000)</b> 141,332	5.TECHNICAL TRANSFER  2-day seminar with 45 participants 2 weeks field observation and study tour.	3.PRINCIPAL SOURCE OF INFORMATION  ①②③		

Compiled Mar. 1993 Revised Mar.1994 ASE PHL/S 109/91 III. PRESENT STATUS OF STUDY RESULTS I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS 1.PRESENT 1.SITE OR AREA 1.COUNTRY Philippines In Progress or In Use STATUS Philippines, Luzon Island, 5 provinces (Cavite, Batangas, Rizol, Laguna, and Quezon) Delayed 2.NAME OF STUDY ☐ Discentinued Calabarzon Intergrated Regional Development 2.PROJECT COST (Description) Total Cost Local Cost Foreign Cost The proposed master plan was approved in Feb. 1992 by the President. (US\$1,000) 1) (FY1993 Overseas Survey) 2) (1) - Construction of Port Patangas scheduled April 1994-Dec.1997 3.SECTOR - The Sangley Point conversion dropped due to economic 3.CONTENTS OF MAJOR PROJECT(S) Development Plan/Sericulture non-viability Manila Container Port will be undertaken.
South Luzon Expressway Extention: Phase I (1993-96) is being implemented under OECF loan (19th Yen Credit), Phase II 3 projects of port development including Greater Capital Region Pot Study 4.REFERENCE NO. 6 projects of roads and highways including Cavite Coastal Road (1995-2000) proposed under 130T scheme. 5.TYPE OF STUDY M/P Carmona - Ternate - Nasuqbu Rds. Partially completed under OECF loan (1993) 6 projects of industrial support including Cavite EP2A 6.COUNTERPART AGENCY Other Roads: Partially completed by local funding
(2) Cavite Export Processing Zone: being implemented and to 5 projects of urban development including Laguna West Urban Development Department of Trade and Industry (DTI) be completed by 3rd quarter of 1994. - 2 projects of agriculture including Batangas East Agriculture Development (3) Technical cooperation by JICA extended for reforestation of the Marikina Watershed 5 projects of rural development including Laguna Upland IRD Projects 7.OBJECTIVES OF STUDY 3 projects of social development including Southern Tagalog Manpower Training and Employment Program To formulate the M/P of flood control for the 2 projects of environmental management including Marikina Watershed Development Ilong-Hilabangan River Basin and to identify and Management priority projects 8.DATE OF S/W 0. 4.CONDITIONS AND DEVELOPMENT IMPACTS 9.CONSULTANT(S) Development Impacts: Nippon Koei Co., Ltd. To enhance the income level in rural areas by creating employment opportunities in primary agriculture, agro-processing and service activities as well as by increasing productivity in agriculture. Pacific Consultants International To sustain high level of growth on the balance between agriculture and industry by promoting complementary linkages between the two major sectors, improving the industrial structure, and including related service activities. **10.STUDY TEAM** To contribute to more equitable development, not generaling the urban poor and squatters, uplifting the rural people from poverty, and realizing better spatial distribution of population and economic activities. No.of Members Period Mar.1990-Sep.1991(18 months) To create a better human environment and enhance social capacity for development by protecting/enhancing natural environment, improving the provision of physical infrastructure and social services, and incorporating socio-cultural values in 2 MAJOR REASONS FOR PRESENT STATUS project planning and implementation. Total M/M Field Japan 126.90 39.30 87.60 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Aerophotgraphing River Survey, Construction of Hydrological Gauging Stations Geologic Survey and Boring 3.PRINCIPAL SOURCE OF INFORMATION **5.TECHNICAL TRANSFER** 12.EXPENDITURE The planning capability of the Philippine counterparts had been strengthened during 427, 347 (¥'000) Total this study through dissemination of information and involvement of the people of Philippines.

和名 カラバールソン地域総合開発計画

Contracted

386, 362

{M/P,Basic Study,Other}

ASE PHL/S 110/91

Compiled Mar.1993 Revised Mar.1994

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRES	SENT STATUS OF STUDY RESULTS	
1.COUNTRY  2.NAME OF STUDY  Ilog-Hilabangan Rive  Project	Philippines r Basin Flood Control	1.SITE OR AREA  110g-Hilabangan River Basin of 2,162 sq.km in Negros Island  2.PROJECT COST  Total Cost Local Cost Formula (US\$1,000)  1) 44,750	· 1	1.PRESENT STATUS  (Description) Although the typ	☐ In Progress or In Use ☐ Delayed ☐ Discontinued ☐ been originally H/P+F/S type, the F/S
3.SECTOR  Social Infrastructures/River & Erosion Control  4.REFERENCE NO.  5.TYPE OF STUDY M/P  6.COUNTERPART AGENCY  Department of Public Works and Highways (DPWH)		3.CONTENTS OF MAJOR PROJECT(S)  The flog-Hilabangan River Basin which have 2,162 sg.km of the drainage from the flood damage in the flood prone area covering about 125sg.km. was formulated in the manner of river improvement to prevent the flood flood prone area. In parallel with the study on flood control project study on water resources development was examined. However, the suital for water resources development could not be found out, so that this wincluded in the study. This river improvement plan for the river stret 21.5 km in total includes provision of revetment and sluice and replace bridges. The project scale of 100 year return period is applied for the The design discharge is 5,450 cu.m/s.	e area suffers Master plan damage in the the potential ble dam site as not cch of about	Neither the conte use. (FY 1993 Overseas Ilog-Hilabangan R The project was	lled because of the security problems of the stydy site. nts of the M/P major projects have been in progress or in  Survey) iver basin Flood Control Project still on the Master plan stage when it was suspended, hence seed for the Feasibility study before the detailed design.
7.OBJECTIVES OF STUDY To formulate the M/P of Ilog-Hilabangan River Epriority Projects.	of flood control for the				
8.DATE OF S/W	Nov.1989	4.CONDITIONS AND DEVELOPMENT IMPACTS			
9.CONSULTANT(S)  CTI Engineering Co., It INA Civic Engineering C Pasco International Inc	Consultants Co., Ltd.	Master plan was prepared setting the target completion year of 2020 as assumed that population in the flood prone area will increase in accordant increasing rate.  After completion of M/P, the flood prone area of about 125 sq.km will from the flood damage up to the flood discharge of a 100-year return pannual average benefit is expected to be 126.6 million Pesos after the	dance with the be released eriod. The		
10.STUDY TEAM  No.of Members 1  Period Feb. 1990-J	5 un.1991(17 months)				
Total M/M	Japan Field				SONS FOR PRESENT STATUS  Is due to NFA's activities in the Negros Island where the
61.27  11.ASSOCIATED AND/OR  SUBCONTRACTED STUD  Aerophotographing River Su  Construction of Hydrologic	Y		And the second s	project site is l	ocated.
Survey and Boring Survey  12 EXPENDITURE  Total  Contracted	398,765 <b>(¥'000)</b> 368,216	5.TECHNICAL TRANSFER  - Periodical lecture meeting and on-the-job training for counterparts.  - JICA counterpart training course in Japan.	1	3.PRINCIPAL SO	OURCE OF INFORMATION

#### ASE PHL/A 107/91

III. PRESENT STATUS OF STUDY RESULTS I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS 1.COUNTRY Philippines 1.SITE OR AREA 1.PRESENT In Progress or In Use **STATUS** Entire Philippines ☐ Delayed 2.NAME OF STUDY ☐ Discontinued Small-scale Irrigation Development Project 2.PROJECT COST (SSIDP) (Description) Total Cost Local Cost Foreign Cost (US\$1,000) The 10-year Development Plan is considered one of the references for 1) 35,546 communal irrigation development and utilized by the National Irrigation 2) Administration for annual planning and external assistance negotiations. US\$1=27.5p 3,563 3.SECTOR (FY1993 Overseas Survey) 3.CONTENTS OF MAJOR PROJECT(S) Agriculture/General (1) An F/S (SSIDP-I) consisting of 231 priority projects was undertaken in 1993. The backage/project was submitted for financing under the 19th Yen 1993. The package/project was summitted for financing under the 19th Yen Credit Package. The ICC Cabinet Level Committee on 16 Feb., 1994 required the reformulatin of the Project giving emphasis to off-farm facilities including the development of the Irrigation Services Associations (ISA). The Project would have to be considered under the 20th Yen Credit Package. By that time, the jurisdictional issue must have been resolved in accordance with the New The Study formulated a 10-year Development Plan which covers 4,037 new or 4.REFERENCE NO. rehabilitation subprojects each ranging from 50ha to 500ha (total area of 570,5)7ha). The Study selected 459 priority subprojects (total area of 70.813ha) as 5.TYPE OF STUDY M/P Grovo A subprojects. 6.COUNTERPART AGENCY i) 10-year Development Plan : Project Cost 1) above Local Gov't. Code, (giving the responsibility of implementation and unkeep of ('GCO pesos) projects that are local in character to the Local Government Units (LGU).

(2) Meanwhile a "Promotional Project" consisting of selected small scale National Irrigation Administration (NIA) Costs of F/S, D/D & Construction Costs of Institutional Development Total irrigation project was submitted to the Japanese Government for implementation under the Grant Aid Program. However, this may also have to be considered in 1996 because the 1995 Program has already been firmed up. Group A Subprojects: Project Cost 2) above Cost of F/S. D/D & Construction 74,836 7.OBJECTIVES OF STUDY Cost of Institutional Development To formulate a master plan for the SSIDP, Total 98,000 aiming at orderly utilization of nation's water and land resources. 8.DATE OF S/W Feb. 1990 4.CONDITIONS AND DEVELOPMENT IMPACTS 9.CONSULTANT(S) Impacts of the 10-year Plan: Nippon Koei Co., Ltd. If The implementation will increase 1.51 million tons of paddy, contributing to the achievement of 100% rice self-sufficiency. 2) The plan will create 68 million man days of employment for construction, and 97 million man days of agricultural employment after the construction. Foreign exchange savings. The implementation will stimulate economic activities throughout the country. Group A subprojects are located in the economically depressed rural areas, and their implementation will alleviate proverty problems.

6) The implementation will promote the participation of small farmers in the development process and improve their operation and maintenance capability. **10.STUDY TEAM** No.of Members 10 Period Jul.1990-Feb.1992(19 months) 2.MAJOR REASONS FOR PRESENT STATUS Total M/M Field Japan 64.23 19,30 44.93 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE 1. Weekly meetings on the method of master plan formulation. 201,013 (¥'000) Total Seminars on database compilation and operation. 191,340 Contracted

和名 小規模灌溉施設整備計画

{M/P,Basic Study,Other}

Compiled Mar. 1993

Mar.1994

Revised

ASE PHL/S 207B/91

Compiled Mar. 1993 Revised Mar. 1994

I.COUNTRY	UNTRY Philippines 1 ME OF STUDY River Basin Flood Control 2		III. PRESENT STATUS OF STUDIED PROJECT  1.PRESENT  Completed or in Progress  Promoting		
Three river systems and the Pangasinan plain in the western part of Central Luron,  Agno River Basin Flood Control    CPROJECT COST   MP   1,070,516 Local   Foreign	ME OF STUDY River Basin Flood Control	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting		
Three river systems and the Pangasinan plain in the western part of Central Luzon, Total area 7,640 sq. km.  Agno River Basin Flood Control  2.PROJECT COST   M/P   1,070,516 Local   Foreign   2,2   16,255 Cest   Cost   2,2   3,895    3.SECTOR  3.SECTOR  3.CONTENIS OF MAJOR PROJECT(S)  4.REFERNCE NO.  5.TYPE OF STUDY   M/P+F/S   1, Agno and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding basin, Moriones-O'plonnel dam. River Rivers.  6.COUNTERPART AGENCY   1, Agno River tributaries (4) and other rivers: river improvements, Binalonan floodway.  7.OBJECTIVES OF STUDY   1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 3, 1, 2, 3, 2,	ME OF STUDY  River Basin Flood Control  2				
Agno River Basin Flood Control    2.PROJECT COST   M/P 1)   1,070,516 Local   Foreign	River Basin Flood Control 2	Three river systems and the Panqasinan plain in the western part of Central Luzon,	STATUS O Completed		
2.PROJECT COST MP 1) 1,070,516 Local Foreign  (US\$1,000) US\$1=27.8pesos F/S 1) 3,913  3.SECTOR  3.SECTOR  Social Infrastructures/River & Erosion Control  4.REFERENCE NO.  5.TYPE OF STUDY M/P+F/S  1. Agno and rar lac Rivers: river improvements, Poponto fooldway, natural retarding basin, Nortones-O'Donnel dam.  6.COUNTERPART AGENCY  Deprtment of Public Works and Highways (DPWH)  7.OBUECTIVES OF STUDY  T.OBUECTIVES OF STUDY  T.OBUECTIVE ARE TRANSPORT OF AUTOMATICAL PROPERTY OF	[2		O Panially Completed Delayed or Suspended		
(USS1,000) (USS1,000) (USS1,000) (USS1,000) (USS1,000) (USS1,000) (USS1,000) (USS1-27.8pesos FS 1) 3,913 (USS1-27.8pesos FS 1) 3,913 (UPST-27.8pesos FS 1) 4,813 (UPST-27.8pesos FS 10,813 (UPST-27.8pesos FS 10,813 (UPST-27.8pesos FS 10,813 (UPST-27.8pesos FS 10,813 (UPST-27.8pesos F	T <sub>n</sub>	1			
3.SECTOR  3.SECTOR  3.SECTOR  3.SECTOR  3.SECTOR  3.SECTOR  3.SECTOR  3.CONTENTS OF MAJOR PROJECT(S)  4.REFERENCE NO.  4.REFERENCE NO.  5.TYPE OF STUDY  M/P+F/S  1. Agmo and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding hasin, Mortones-O'Donnel dam. 2. Agmo River tributaries (4) and other rivers: river improvements, Binalonan floodway. 3. Flood Forecasting and Warning System (FFWS) for the Agmo, Bicoland and Cagayan River (FFWS)  7.OBJECTIVES OF STUDY  7.OBJECTIVES OF STUDY  To formulate a Master Plan for flood control in the Agmo River Basin and to identify the priority areas.  2. Agmo River Basin and to identify the priority areas.  2. Agmo River Basin and to identify the priority areas.  3. Section  3. CONTENTS OF MAJOR PROJECT(S)  4. Primework Plan (an ideal goal) 1. Agmo and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding hasin, Nortones-O'Donnel dam and other rivers: river improvements, Binalonan floodway. 3. Flood Forecasting and warning System (FFWS) for the Agmo, Bicoland and Cagayan River (FFWS) for the Agmo, River Basin Flood Control:  4. Debris control by 34 dams. 4. Debris control by 34 dams. 5. Plood Forecasting and Warning System (FFWS) for the Agmo, Bicoland and Cagayan River (FFWS) for the Agmo, River flood Control in for the Each River (FFWS) for the Agmo, River flood Control in fo	111	(US\$1,000)	Processing Discontinued or Cancelled		
3) Sector Social Infrastructures/River & Erosion Control 3.CONTENTS OF MAJOR PROJECT(S)  4.REFERENCE NO.  5.TYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY Deprtment of Public Works and Highways (DPWH)  7.OBJECTIVES OF STUDY  7.OBJECT	V.	1 0041-51 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(Description)		
3.CONTENTS OF MAJOR PROJECT(S)  4.REFERENCE NO.  5.TYPE OF STUDY  M/P+f/S  6.COUNTERPART AGENCY  Depriment of Public Works and Highways (DPWH)  7.OBJECTIVES OF STUDY  7.OBJECTIVES OF STUDY  7.OBJECTIVES OF STUDY  ARST of conducted a Master Plan for flood control in the Agno River Basin and to identify the priority areas.  3.CONTENTS OF MAJOR PROJECT(S)  4.Reference in the additional control in the priority project in the additional graph to the first priority project identified by JICA F/S by use of the OECF enqineering peakage loan, in period January 1993 - January 1994. The project was titled "Urgent Rehabilitation and Improvement Works for Agno River Flood Control Project."  2. Agno River improvement of Public Works and Highways (DPWH)  3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Caqayan Rivers  4. Debris control by 34 dams.  2. Long-Term Plan (target year:2020)  3. All projects except Moriones-O'Donnel dam and Binalonan floodway.  2. Accuracy improvement on the existing FFWS and more effective warning delivery activity.  F/S  1. Plood Control Plan for the Upper Agno River (area: 1,264 sq. km). River improvement of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPWH) of GOP has a schedule of Public Works and Highway (DPW	TOR		(FY 1993 Domestic Survey)		
4.REFERENCE NO.    M/P   1) Framework Plan (an ideal goal)   1. Agno and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding basin, Morlones-O'Donnel dam.   2. Agno River tributaries (4) and other rivers: river improvements, Binalonan floodway.   3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Caqayan Rivers.   4. Debris control by 34 dams.   2. Long-Term Plan (target year:2020)   1. All projects except Moriones-O'Donnel dam and Binalonan floodway.   2. Accuracy improvement on the existing FFWS and more effective warning delivery activity.   F/S   1) Flood Control Plan for the Poponto F and For the Agno River Basin and to identify the priority areas.   2) Flood Control Plan for the Pantal-Sinocalan River (area: 879 sq. km), River (amprovements (total 69.06 km), Poponto natural retarding basin.   2) Flood Control Plan for the Pantal-Sinocalan River (area: 879 sq. km), Riv	Infrastructures/River & Erosion Control 3	3.CONTENTS OF MAJOR PROJECT(S)	rehabilitation works at the end of 1992 and the first priority project area		
5.TYPE OF STUDY  M/P+F/S  1. Agno and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding basin, Moriones-O'Donnel dam.  6.COUNTERPART AGENCY  Deprtment of Public Works and Highways (DPWH)  Deprtment of Public Works and Highways (DPWH)  Deprtment of Public Works and Highways (DPWH)  1. Agno and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding basin, Moriones-O'Donnel dam.  2. Agno River Flood Control Project "2.  3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Cagayan River Rood Control by 34 dams.  4. Debris control by 34 dams.  2. In Debris Control by 34 dams.  3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Cagayan River Rood Control:  4. Debris control by 34 dams.  2. Long-Term Plan (target year:2020)  1. All projects as titled "right Works and Highway (DPWH) of GOP has a schedule of the 20th OECF project Carried Control:  4. Debris control by 34 dams.  2. Agno River Basin Flood Control Plan for the Upper Agno River (area: 1,264 sg. km). River Improvements (total 69.06 km), Poponto natural retarding basin.  2. The Department of Public Works and Highway (DPWH) of GOP has a schedule of Control Plan for the 20th OECF project Carried Control Plan for the Upper Ragno River (area: 1,264 sg. km). River Improvements (total 69.06 km), Poponto natural retarding basin.  2. The Department of Public Works and Highway (DPWH) of GOP has a schedule of Control Plan for the 20th OECF project Vascured Survey.  5. The Department of Public Works and Highway (DPWH) of GOP has a schedule of Control Plan for the 20th OECF project Vascured Survey.  6. COUNTERPART AGENCY  2. Agno River Basin Flood Control Project Vascured Survey.  5. The Department of Public Works and Highway (DPWH) of GOP has a schedule of Control Plan for the 20th OECF project Vascured Survey.  6. Debris control Plan for the Agno River (area: 1,264 sg. km). River Improvements (total 69.06 km), Poponto natural retarding basin.  2. Priod Control Plan for the Pantal-Sinocalan	ERENCE NO W	M/P	period January 1993 - January 1994.		
Deprtment of Public Works and Highways (DPWH)  Deprtment of Public Works and Highway (DPWH)  Depriment of Public Highway (DPWH)  Depriment of Public Highway (DPWH)  Depriment of Pub	DE OF STUDY MARIE 1.	1. Agno and Tarlac Rivers: river improvements, Poponto fooldway, natural retarding	Agno River Flood Control Project".		
Depriment of Public Works and Highways (DPWH)  3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Cagayan Rivers. 4. Debris control by 34 dams. 2) Long-Term Plan (target year:2020) 1. All projects except Moriones-O'Donnel dam and Binalonan floodway. 2. Accuracy improvement on the existing FFWS and more effective warning delivery activity.  F/S 1) Flood Control Plan for the Upper Agno River (area: 1,264 sg. km). River the Agno River Basin and to identify the priority areas.  Figure 1993 Overseas Survey) Agno River Basin Flood Control:  Detailed engineering Design of the urgent rehabilitation and improvement for this project carried out by OECF Engineering Service Package Loan. Conducted during January 20, 1993, to January 1994.  Addendum for additional work on Hydraulic Model Test for the Poponto F approved by OECF and work is under the study by the consultant. It will improvements (total 69.06 km), Poponto natural retarding basin. 2) Flood Control Plan for the Pantal-Sinocalan River (area: 879 sg. km), River    FFW 1993 Overseas Survey	NTERPART ACENCY 2.	2. Aqno River tributaries (4) and other rivers: river improvements, Binalonan			
A Debris control by 34 dams.  2) Long-Term Plan (target year:2020)  1. All projects except Moriones-O'Donnel dam and Binalonan floodway.  7.OBJECTIVES OF STUDY  -To formulate a Master Plan for flood control in the Agno River Basin and to identify the priority areas.  Agno River Basin Flood Control:  Detailed enqineering Design of the urgent rehabilitation and improvement for this project carried out by DECF Engineering Service Package Loan.  Addendum for additional work on Hydraulic Model Test for the Poponto F approved by OECF and work is under the study by the consultant. It will improvements (total 69.06 km), Poponto natural retarding basin.  priority areas.  Agno River Basin Flood Control:  Detailed engineering Design of the urgent rehabilitation and improvement for this project carried out by DECF Engineering Service Package Loan.  Addendum for additional work on Hydraulic Model Test for the Poponto F approved by OECF and work is under the study by the consultant. It will improvements (total 57.7 km), etc	ment of Public Works and Highways (DPWH)	3. Flood Forecasting and Warning System (FFWS) for the Agno, Bicoland and Cagayan	(FY 1993 Overseas Survey)		
1. All projects except Moriones-O'Donnel dam and Binalonan floodway.  7.OBJECTIVES OF STUDY  -To formulate a Master Plan for flood control in the Agno River Basin and to identify the priority areas.  1. All projects except Moriones-O'Donnel dam and Binalonan floodway.  2. Accuracy improvement on the existing FFWS and more effective warning delivery activity.  F/S  1) Flood Control Plan for the Upper Agno River (area: 1,264 sq. km). River improvements (total 69.06 km), Poponto natural retarding basin.  2) Flood Control Plan for the Pantal-Sinocalan River (area: 879 sq. km), River improvements (total 57.7 km), etc  Priority areas.	4.	4. Debris control by 34 dams.			
To formulate a Master Plan for flood control in the Agno River Basin and to identify the priority areas.  Addendum for additional work on Hydraulic Model Test for the Poponto F approved by OECF and work is under the study by the consultant. It will improvements (total 69.06 km), Poponto natural retarding basin.  2) Flood Control Plan for the Upper Agno River (area: 1,264 sq. km). River improvements (total 69.06 km), Poponto natural retarding basin.  2) Flood Control Plan for the Upper Agno River (area: 1,264 sq. km). River improvements (total 69.06 km), Poponto natural retarding basin.  2) Flood Control Plan for the Poponto F approved by OECF and work is under the study by the consultant. It will be complete in March 1995.	2.	1. All projects except Moriones-O'Donnel dam and Binalonan floodway. 2. Accuracy improvement on the existing FFWS and more effective warning delivery	Detailed engineering Design of the urgent rehabilitation and improvement works for this project carried out by DECF Engineering Service Package Loan. It conducted during January 20, 1993, to January 1994.		
the Agno River Basin and to identify the improvements (total 69.06 km), Poponto natural retarding basin.  priority areas.    Flood Control Plan for the upper Agno River (area: 879 sq. km), River (area: 879 sq. km), River (mprovements (total 57.7 km), etc	The second second in E/	F/S	Addendum for additional work on Hydraulic Model Test for the Poponto Floodway		
improvements (total 57.7 km), etc	gno River Basin and to identify the	improvements (total 69.06 km), Poponto natural retarding basin.			
-To conduct a Feasibility Study on the flood	ity ateas.				
control projects in the identified priority					
8.DATE OF S/W Dec.1988					
9.CONSULTANT(S)	CHARLES AND				
Nippon Koei Co., Ltd.  CTI Engineering Co., Ltd.  Imp. Period: .19952004		Imp Period: 1995-2004			
cir Engineering Co., Ecc.	to the same of the				
Kokusai Kougyo Co., Ltd.  4.FEASIBILITY AND Feasibility: EIRR1) 20.58 FIRR1) 19.96  ITS ASSUMPTIONS Yes FIRR2) FIRR2)	Į.	FERRY) FIRRY)			
EIRR3) FIRR3)		EIRR3) FIRR3)			
10.STUDY TEAM Conditions and Development Impacts:	UDY TEAM C	Conditions and Development Impacts:			
No.of Members Planning Conditions 1) Framework Plan	of Members 11)	1) Francyck Plan			
Period May.1989-Sep.1991(28 months)  1. For Agno and Tarlac Rivers, design level is set at a 100-year return period. For tributaries a 50-year return period.	1	1. For Agno and Tarlac Rivers, design level is set at a 100-year return period. For			
2. San Roque dam is assulmed to be complate.  3. In the debirs control plan, it is assumed that 50% of the sediment yield in the		lo can Domin dam le acculment to be complate.			
mountainous areas is cut by afforestation / reforestation and all sediment due to	· · · · · · · · · · · · · · · · · · ·	mount-impure areas is out by afforestation / referentation and all sediment due to	2 MAJOR REASONS FOR PRESENT STATUS		
Total M/M Japan Field mine tailings, land slide and road construction is perfectly controled.  2) Long-Term Plan 1. Ror Agno River and its tributaries, design level is a 25-year return period. For	- I 21	2) Iong-Term Plan	Zambor idaonot ox tresaut out to		
others, 10 years.		others, 10 years.			
11.ASSOCIATED AND/OR 2. Project life is 50 years. 3) F/S SUBCONTRACTED STUDY 1. Project life is 50 years.	(3)	3) F/S	•		
2. Operational cost is 0.5% of construction and maintenance costs.	2.	2. Operational cost is 0.5% of construction and maintenance costs.	·		
3. Prices as of May 1991.	ļam.				
12.EXPENDITURE 3.PRINCIPAL SOURCE OF INFORMATION	ENDITORE 5	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION		
Total 671, 110 (Y'000)					
Contracted	Contracted				

ASE PHL/S 325/91

Compiled Mar.1993 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUM	MARY OF	STUDY I	RESULTS		III. PRE	SENT STATUS OF ST	UDIED PROJECT	
1.COUNTRY 2.NAME OF STUDY	Philippines	1.SITE OR AREA Balara Water Treatment Pl	ant				1.PRESENT STATUS	Completed or in Progress Completed Partially Completed	☐ Promoting ☐ Delayed or Suspended	
Balara Water Treatmer Project	nt Plant Rehabilitation	2.PROJECT COST (US\$1,000)	1) 2)	Total Cost 10,576 25,442	Local Cost 1,997 5,764	Foreign Cost 8,579 19,678	(Description)	○ Implementing ● Processing	Discontinued or Cancelled	
3.SECTOR Public Vtilities/Timber 4.REFERENCE NO.	Processing	3.CONTENTS OF MAJOR  In order to recover the plant, stabilize the water operation, the Study records.	planned capac treatment promends the rep	ocess, and impo lacement of the	rove the mainter e malfunctioning	nance and treatment	In February 19 (NEDA) the requirements the project.  (FY1993 Oversea Jan.18, 1994 (	992, MWSS submitted to National E dest of applying for the Japanese as Survey) Grant Aid E/N (131 mil.Yen) for E	e Grant Aid Program to implement	
5.TYPE OF STUDY 6.COUNTERPART AGENC Metropolitan Waterworks (MWSS)		laminment including ablasimation. The Study compared three alternatives shown heldw [V						Jan.18, 1994 Grant Aid E/N (131 mil.Yen) for D/D only Jan. 1995 Grant Aid E/N expected for construct on / rehabilitation  Total investment cost : P 1055.33 mil. Forein currency P 822.01 mil. Domestic currency P 233.32 mil.		
7.OBJECTIVES OF STUDY To recover the products improve the water quali	vity of the plant and to	Alternative 2 consists of structural defects of smeasures in order to ensure The project cost 1) about the project cost 1) about the project cost 2.	edimentation be the 15-year	oasins, and oth durability.	her necessary in	provement				
8.DATE OF S/W	Feb.1991	Imp. Period:		.19921995						
9.CONSULTANT(S) Nippon Jogesuido Sekkei	Co., Ltd.	4.FEASIBILITY AND ITS ASSUMPTIONS	easibility: Yes	EIRR1) EIRR2) EIRR3)	32.40 FIR	(R1) 7.80 (R2) 5.40 (R3)	3			
		Conditions and Develo The benefits such as hea will be brought approxima	ith and welfar tely 6 million	e improvement : persons in Me	tro Manila.					
10.STUDY TEAM  No.of Members 6		* EIRR 1) and FIRR 1) are equipment including chlor	for the repla ination, and E	cement of the IRR 2) and FIR	superannuated t R 2) for the en	reatment tire project.				
ł ·	ar.1992(8 months)			·						
Total M/M 22.83	Japan         Field           9.20         13.63						This project in Development Pla	ASONS FOR PRESENT STAT s in line with the objectives of an (1992-1998) as embodied under	the Medium-Term Philippine	
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	1	5.TECHNICAL TRANS	EFD.		nonemperature por proportion and the second	<del>State and the second s</del>	Sanitation sect	cor.		
12.EXPENDITURE Total Contracted	89,337 <b>(¥'000</b> ) 77,191	Techinical transfer in t adjustment method of inte sludge disposal of sedime and the adjustment of che	erms of confir nsity of coaqu ntation basin.	lation and flo the importanc	cculation , the e of filter was	importances of	3.PRINCIPAL	SOURCE OF INFORMATION		

ASE PHL/S 324/91

Compiled Mar.1993 Revised Mar.1994

I. OUTLINE OF STUDY		II. SUMMARY O	OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Rural Road Disaster F	Philippines Prevention Project	the three provinces of Benquet, Batanon Province, eighteen in Batangas and two 2.PROJECT COST  (US\$1,000)  1) 2)	the pilot provinces: Sixty-two disaster spots in ngas and Leyte(twenty-one spots in the Benguet wenty-three in Leyte).  Total Cost Local Cost Foreign Cost 2,400 1,184 1,216	1.PRESENT Completed or in Progress Promoting
7.OBJECTIVES OF STUDY  1.To find disaster spot provinces and to propos  2.To make enforcement p policies proposed.	F/S Y  orks and Highways (DPWH) ce (PMO)  s on rural roads in pilot ce restoration policies.	3. Fall of rock/debris Removal of depo 4. Landslide Removal of depo 5. Debris flow Removal of depo 6. Washout of roadbeds Refilling, emba 7. Flooded/muddy Temporary side 7. Flooded/muddy Temporary side 7. Flooded/muddy Temporary side 8. Permanent/temporary H-Pile bent bridge washout Bailey bridge 9. Perm./temp. bridge Bailey bridge approach washout 10.Other bridge damage None 11.Spillway Damage Selected materia 12.Culvert Damage Refilling, emban 13.Seawall Damage Wooden fence	qed Roads: s Permanent Heasures posits Recutting, etc. posits, etc. posits, etc. posits, etc. posits, etc. posits, etc. posits Catch qabion wall, etc. bankment, etc. Grouted riprap e ditch surface drainage ing Gravel surfacing Concrete bridge, or None Grouted riprap Concrete bridge Concrete bridge Concrete foot protection Support-type concrete wall, etc. Gravity type stone Masonry, etc.	The annual budgets of the DPWH have been, and are being, chiefly used for the restoration of those areas which were damaged by the earthquake in Luzon (July 1990) and the eruption of Mt. Pinatubo (Nov.1991). This Study aimed to establish the restoration and preventive measures for the regional roads in disaster-prone areas. Therefore, the implementation will be repackaged with other road improvement projects.  (FY1993 Overseas Survey)  The present status of the proposed projects may be bettwe described as "delayed or suspended'.  The JICA study was undertaken primarily to determine countermeasures to different types of disasters and failures. Benquet, Batanqas and Leyte were salected as pilot provinces which are prone to most of the disaster types. The findings of the JICA study are meant for other provinces as well as 3 pilot provinces.  Before the GOP was able to implement the recommendations of the JICA study, two major disasters (the 1990 earthquake in Luzon and the eruption of Mt. Pinatubo)hit the country and the annual budgets for rehabilitation and restoration had been primarily used for the restoration and preventive measures for the damaged facilities.  The future road improvement projects pacaged for implementationwill incorporate the countermeasures as proposed by the JICA study.
8.DATE OF S/W  9.CONSULTANT(S)  Katahira & Engineers In  10.STUDY TEAM  No.of Members 9  Period Sep.1989-Ja	.0  International  an.1992(27 months)	and vegetation seeds are not easily - Understanding cautions about executions about executions about executions about executions Appropriate maintenance on the drain catches.  2. All of the projects except two upon a Analysis period is twenty years from the country are in 15 per annum.	EIRR1) FIRR1) EIRR2) FIRR2) EIRR3) FIRR3)  pacts:  methods are technically feasible.  mions, H-piles, Bailey bridge materials y procured.  ting methods of gabions and horizontal ed.  min facilities, vegetation and rock fall  magrading projects are sconomically feasible.	
Total M/M 53.00  11.ASSOCIATED AND/OR SUBCONTRACTED STUD Topographic survey Geological survey  12.EXPENDITURE Total Contracted		cases: one that urgent measures are followed are executed"without case " adm with case are depatterns (disaster patterns, Magnitude - Costs are defined as those for urger and are assumed to be disbursed at the benefits are divided between covering the control of the covering the coverin	d by permanent and the other that only urgent defined according to five disaster occurrence de, frequency and restoration timing). Hent or permanent measures according to projects the first year of analysis.	2.MAJOR REASONS FOR PRESENT STATUS  3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASE PHL/S 111/92

Compiled Mar. 1994 Revised

I. OUTLIN	E OF STUDY	II.	SUMMARY OF STUI	Y RESULTS		III. PRES	SENT STATUS OF STU	DY RESULTS
1.COUNTRY  2.NAME OF STUDY  Master Plan on Maris	Philippines time Safety		ed facilities on land under the j	urisdiction of Phil	ippines	1.PRESENT STATUS	■ In Progress or In  □ Delayed □ Discontinued	n Üse
		(US\$1,000)	Total Cost 1) 699,320	Local Cost For	eign Cost 389,960	(Description) Among the 10 Proprojects were sel	jects listed in the " Major Projec ected for Pre-Feasibility Study.	ct Proposed", the follwing 3
3.SECTOR Transportation/Marine T) 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGEN	M/P CY	1. Implementation Stu 2. Implementation Stu 3. Study for Vessel S 4. Study for Interisl 5. Safe Navigation St 6. Study for Implemen	station Program of Upgrading of M	and Seafarers ration System revelopment Plan RCP/ TELOF to		2. Vessel Safety Reliability. 3. Aids to Naviga In connection wi conducting the Co (MSIP) by OECF Lo MISP is composed	Maritime Transportation Safety Pro Standard and Vessel Inspection Sys- tion Upgrading Reliability Project th this Study, Maritime Industry / onsulting Service for the Maritime oan PH-P121 from April 1992. Tof 2 subprojects, namely, the Uro Aids to Navigation and the Intensi	tem Upgrading  Authority (MARINA) is Safety Improvement Project gent Rehabilitation of Aids
Maritime Industry Auti 7.OBJECTIVES OF STUD		Reinforce Function 7. Feasibility Study and 133 Bases 8. Implementation Stu 9. Implementation Stu	nality of Maritime Safety Telecom for HF Network Linking PCG and F udy of SAR Vessel Improvement udy for Aids to Navigation Improv Gransportation Safety Project Pla	wwnication Regional Headquaters Vement Project	ı	t 2. Project 44 : A	Survey) (ARINA is undertaking preparatory of the technical capacity. pproved by NEDA-ICC and pipelined under the 19th Yen Credit Program. Unding under the 19th Yen was defo	for financing
1.To formulate the M/I Philippines 2.To conduct the Pre-I priority project						i b 4. Of the three p Maritime Trans	nstitutional issues, but by now have NEDA-ICC.  project selected for Pre F/S, the ( portation Safety project has been  addressed under other projects.	s been approved Debu Regional
8.DATE OF S/W	Jan.1990	A COMPANY ON A MARKET	D DEVELODMENT MADACTE			4		
9.CONSULTANT(S) The Japan Association Yachiyo Engineering Co	for Preventing Marine	Accid The following economaccidents.  1. The preservation of 2. Preventing loss and 3. Reduction of trans		eto-to-ril	ime			
1	11 Jul.1992(17 months	5. Increase in the re	eliability of domestic shipping.					
Total M/M 61.05	* - <b>F</b>	rield				2.MAJOR REAS	SONS FOR PRESENT STATUS	
11.ASSOCIATED AND/OI SUBCONTRACTED STU 1.Locational measuring of 2.Preliminary Design of S	R DY Aids to Navigation					Control of the Contro	·	
12 EXPENDITURE Total Contracted	209,329 ( <b>)</b> 201,285	5.TECHNICAL TRA  1000)  1. Seminar was held in Maritime Safety, was acceptance of training tr	in Manila and Cebu in July '92 to	owards Master Plan o people.	n	3.PRINCIPAL S	OURCE OF INFORMATION	

ASE PHL/A 108/92

Compiled Mar. 1994 Revised

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS			III. PRESENT STATUS OF STUDY RESULTS			
1.COUNTRY  2.NAME OF STUDY  Integrated Rural Deve	Philippines lopment Program in	1.SITE OR AREA 14 municipaloties, Pampanga Province, Central Luzon (Program III)			1.PRESENT STATUS	☐ In Progress or In Use  ☐ Delayed ☐ Discontinued		
Pampanga		2.PROJECT COST (US\$1,000)	Total (	Cost Lo	ocal Cost l	Foreign Cost 7,583	(Description) (1) Magalang Revised projects	covering upgrade of the existing training facilities ere
3.SECTOR Agriculture/General		3.CONTENTS OF MA	<del></del>	4,285	5,661	8,624	proposed , the Ma	galang is suitable for training and demonstration to promote ettlement project areas. PAR is preparing project request to
4.REFERENCE NO.		(1) Magalong Area Reha 1. Rehabilitation of	bilitation Project irrigation and drainage	i : [acilities	(87 ha)	:		trea ispended due to the chance in the river flows by the eruption and serious and mudflowrs.
5.TYPE OF STUDY 6.COUNTERPART AGENCY	M/P	<ol> <li>Rehabilitation of d</li> <li>Rehabilitation of d</li> </ol>	chard irrigation facili existing road (34.8 km) omestic water supply sy	stem, post b			(FY1993 Overseas	Survey) cost vis-a-vis benefits to be derived. The EIRR for the two
Department of Angrarian	3	[{2} Mexico and Sta. Av	nage (Rehabilitation: 7 Farm roads		ruction: 555ha	)	priority projects (2) The project he river Sources for	s are way below the 15% hurdle rates required by NEDA-ICC. as been relegated by DAR to a low priority status since the the trigation component the Abacan and Matubio rivers are by lahar flows due to the Mt. Finatubo eruption.
7.OBJECTIVES OF STUDY (1) to clarify the deve the natural and seci-ec (2) to assess agricultu promote integrated rura and	clopment constraints on conomic conditions							
	Aug.1990	A CONDITIONS AND	DEVELOPMENT IM	IPACTS	T			
9.CONSULTANT(S) Nippon Koei Co., Ltd.		(1) Magalang 1. Demonstration affe pfoject areas, 2. Decrease the incom neighboring rural 3. Promotion of agrar	cts for lovelihood impr	overent the project are	ea and the			
10.STUDY TEAM  No.of Members 6  Period Jul.1991-Au	ug.1992(14 months)		ts an communal irreation ent opportunity through			arketinq		
Total M/M	Japan Field							SONS FOR PRESENT STATUS
26.53 11.ASSOCIATED AND/OR SUBCONTRACTED STUD	4.00 22.53						is pre-F/S, hence	oplementaly implemented with the Mapping. The level of study detail surveys on topography, qealogy, hydrology and re-formulation of the plan should be done before the project
(1) Soil survey and analysi (2) water quality test			·		·			
12.EXPENDITURE Total	598,046 (¥'000)	5.TECHNICAL TRAN	NSFER ase on agricultural lan	d informatio	on.			OURCE OF INFORMATION
Contracted	378, 046 (# (000)	2. Creation of data b	ase on land holding and	tenure, and	d programs of	land reform.	023	

和名 農地情報整備計画

{M/P,Basic Study,Other}

ASE PHL/S 208B/92

Compiled Mar. 1994 Revised

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY Philippines  2.NAME OF STUDY  Nationwide Roll-on Roll-off Transport System	1.SITE OR AREA Through the Republic (M/P) Iloilo city, Bacolod City (F/S)	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended		
Development	2.PROIECT COST   M/P 1) 2,721,200 Local Foreign (US\$1,000)   2)   Cost   Cost   Cost	O Implementing O Processing Discontinued or Cancelled		
3.SECTOR Transportation/Port	2) 201, 373 3) 3.CONTENTS OF MAJOR PROJECT(S)	(Description)  (M/P> In the Study, F/S of Iloilo / Bacolod route are conducted by the team. After the Study, the Philippine Government conducted F/S by themselves on Toredo / San Carlos utilizing the technology		
4.REFERENCE NO. 5.TYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY	Project cost 1) is of whole M/P, 2) is of Iloilo, 3) is of Bacolod.  Project costs are shown in Peso 1,000 instead of US\$1,000.  CM/P> 1. Master plan of Rc/Rc Routes. Contents are as follows:  (1) 1st priority 12 routes which are the most suitable for the Rc/Rc operation with the characteristic of complecion of N. S trunk routes	transferred by the team. It is told some other routes may be placed under F/S.  Consideration is given by the government to the maritime safety aspects along with the team's recommendation in this aspect. <f s=""></f>		
DOTC	and Visaya corridor. (2) 2nd priority 14 routes which have moderate suitablility with Visaya/ Mindanao Trunk and Western Mindanao Islands. (3) Center routes are not suitable for Ro/Ro. 2. Policies to attain the MP	It is said that relevant Philippino agencies (NEDA, DOTC, DPWH, PAA and MARINA) consisting IATCTP (Inter agencies technical Committee for Taransport Planning) are studing the implementation of the project.  (FY 1994 Overseas Survey)		
7.OBJECTIVES OF STUDY  2. F/S of " iloilo/ Bacolod Ro/Ro Route"	(1) Maritime Policy- limited government intervention, threamlining government oraganization and clearance procedure. (2) Others - Road impove, traffic monitor (F/S> prerequisite: to conduct six voyage (each direction) by four vessles of 23,000 grt.type. Port of Iloilo: 1997 one berth with 115m length and -5.5m depth should be constructed with ancillary facilities. By 2010 one more berth be added.	Subsequent feasibility study of the Cebu/Leyte route was conducted by the local Gopteam between June 1993 and February 1994.		
8.DATE OF S/W Jan.1990				
Overseas Coastal Area Development Institute of J Pacific Consultants International	Imp. Period: .19972010	• · · · · · · · · · · · · · · · · · · ·		
10.STUDY TEAM  No.of Members 13  Period Apr.1991-Aug.1992 (17 months)	Conditions and Development Impacts:  EIRR2) is under the worst condition, FIRR1) is of Iloilo, 2) is of Baclold.  M/P> 1. Since the Philippines is the world's largest archipelagic nation, sea transport plays a prevailing role both in terms of passenger and Project. 2. Ro/Ro transport -which can connect two different transport mode will make the			
28.30 42.80 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Traffic Survey	nation's sustainable growth possible through quicker transit of people and goods. Especially, in Vusaya region, its importance is remarkable.  3. Study route are categorized into 3, and when 1st and 2nd category route is completed N-S axis and Visaya network become formulated. <pre></pre>	2.MAJOR REASONS FOR PRESENT STATUS  OM/P> Due to the comformity between the Philippine's policy goal and the team's obsavation.  (F/S) Due to the sustainability of the route.		
Natural Condition Survey  12.EXPENDITURE  Total 274,638 (¥'000 Contracted 268,492	5.TECHNICAL TRANSFER  C/P Training Seminor two times / Workshop in Manila three times	3.PRINCIPAL SOURCE OF INFORMATION  ①②		

和名 全国フェリー輸送計画

ASE PHL/S 209B/92

Compiled Mar.1994 Revised

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
2.NAME OF STUDY	of Davao International	1.SITE OR AREA  Davao International Airport  2.PROJECT COST M/P1) Local Foreign Cost Cost	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Air Transport 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Department of Transports (DOTC)	M/P+F/S	(US\$1,000)  F/S 1) 133,000  2) 108,000 38,000 70,000  3)  3.CONTENTS OF MAJOR PROJECT(S)    CM/P> Phase of Development:  1. Medium-Term Development Plan (1999-2000) Total project cost: 2,700 Million PHP Construction of a new 2,500 long runway and new terminal facilities.  2. Long-Term Development Plan (2001-2010) Total project cost: 600 Million PHP Runway extension to 3,000 m and expansion of the terminal facilities    F/S>	(Description)  1. In November 1992, Davao Municipal Government amended the existing land use plan based on the airport master plan proposed tentatively at the time by the Study Team and issued the amendment as a city ordinance, so that the land use surrounding the airport could be controlled legally in accordance with the airport master plan.  2. DOTC has an intention to include this project under the forthcoming 19th OECF Loan discussion.  (FY1993 Overseas Survey)  The conduct of the detailed engineering (D/E) was proposed by DOTC for financing under the OECF 19th YCP but was subsequently withdrawn, also by DOTC.
7.OBJECTIVES OF STUDY Formulation of master point the medium-term deve	lan and feasibility study	Runway (2,500m), connecting taxiways, apron, passenger terminal building (16,000m2), cargo terminal building (3,500m2), administration buildings and control tower (1,600m2), fire station (500m2), car park (310 spaces), air navigation systems, airport utilities, and fuel supply system.	DOTC is exploring the possibility of sourcing ADB funding for the project. ADB is preparing to extend a T/A grant for the conduct of study to re-evaluate the study conducted by JIKA to focus only on the existing facilities to determine whether their expansion instead of new construction will be adequate to meet projected traffic demand in light of budgetary constraints.
8.DATE OF S/W  9.CONSULTANT(S)  Pacific Consultants Interes Asahi Cor.	Dec.1991 ernational	Imp. Period: .19951998	
		4.FEASIBILITY AND Feasibility: EIRR1) 17.70 FIRR1) TIS ASSUMPTIONS Yes/No EIRR2) FIRR2) EIRR3) FIRR3)	
No.of Members 8 Period Mar.1992-Ma	r.1993(0 months)	Conditions and Development Impacts:  [Conditions]  (M/P) Air Traffic Demand Forecast Year 1990 2000 2010  Annual air passengers Domestic 454,000 799,000 1,210,000 International 46,500 167,000	
Total M/M 35.30	Japan         Field           19.07         16.23	Annual air cargo (ton) Domestic 19,685 43,800 72,700 International 1,600 11,900 <f s=""> Period of evaluation: 20 years</f>	2.MAJOR REASONS FOR PRESENT STATUS  (FY 1993 Overseas Survey) The development of airport facilities,
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY - Soil investigation - Topographic survey	7340	EIRR : 17.7 % B/C ratio : 1.2 (at discount rate of 15%)  [Development Impacts]  (M/P, F/S> 1. Improvement of air transport safety. 2. Provision of unrestricted and efficient air transport services. 3. Contribution to the agro-industrial development in Southern Mindanao. 4. Contribution to tourism development in Davao. 5. Increase	the Davao International Airport included, to provide efficient and reliable air transport operations is a major objective of the MTPDP. The development of the airport directly addresses the concerns and thrusts of the Southern Mindanao (Region XI)  Development Plan to improve the air transport subsector, as a component of the East Asian Growth Triangle (EAGLe).
12 EXPENDITURE  Total  Contracted	150, 986 <b>(¥'000)</b> 144, 435	5.TECHNICAL TRANSFER  1. Seminar, Feb. 1, 1993 at Davao 2. Invitation of Tarainee Mr. Raphael S. Lavides Cct. 1992 - Nov. 1992 Mr. Angel S.Rongcal Mar. 1993 - Apr. 1993	3.PRINCIPAL SOURCE OF INFORMATION  ©②

#### PROJECT SUMMARY (Basic Study)

ASE PHL/S 503/92

Compiled Mar, 1994

Revised III. PRESENT STATUS OF STUDY RESULTS II. SUMMARY OF STUDY RESULTS I. OUTLINE OF STUDY 1.SITE OR AREA 1.PRESENT 1.COUNTRY Philippines In Progress or In Use Metro Manila and a part of Rizal Province, 5 cities and 32 munucipalities, in an area of 2,126 km2 (MWSS Service Area : MSA) STATUS ☐ Delayed 2.NAME OF STUDY ☐ Discontinued Groundwater Development in Metro Manila 2.PROJECT COST (Description) **Total Cost** Local Cost Foreign Cost (US\$1,000) (1) Rehabilitation of MWSS wells 1) 7,935 7,935 Five to six wells are being rehabilitated annually by MWSS's 2) (USD1=25.0peso) own budget. 3.SECTOR Groundwater Development Plan in Antipolo Two wells are planned to be constructed in 1992 by MWS5's 3.CONTENTS OF MAJOR PROJECT(S) Social Infrastructures/Water Resource Development own budget. Groundwater Monitoring in Metro Manila Not implemented. The study clarified groundwater use and a mechanism of saline water intrusion. For Database is in operation.
Groundwater Investigation in Rizal Province Not implemented. 4.REFERENCE NO. better development and conservation of groundwater in Metro Manila, following projects were proposed.
(1) Rehabilitation of MWSS wells (100 wells) 5.TYPE OF STUDY Basic Study (FY 1993 Overseas Survey) Ground water Development in Metro Manila: Groundwater development in Antipolo (7 wells) 6.COUNTERPART AGENCY (3) Groundwater Monitoring The implementation phase of this project expected to carry out with the Facilities & Wells 20 wells depth:150m assistance of the JICA through its Grant-Aid program. All the requirements 30 wells depth :300m (4) Detailed Hydrogeologic survey in Rizal Province Metropolitan Waterworks and Sewerage System need by NEDA for the early disposition of the JICA grant for the project's (MMSS), Planning & Program. Dept. foreign component already submitted. Meanwhile, about 20% of its first two components, I.e. well rehabilitation in Metro Manila and deep well construction in Atipolo, Rizal currently being undertaken with the use of the local counterpart funds. 7.OBJECTIVES OF STUDY (1) Rehabilitation Plan of MWSS Wells (2) Groundwater Development Plan in Antipolo (3) Analysis of Saltwater Intrusion (4) Groundwater Monitoring Program 8.DATE OF S/W Jan.1990 4. CONDITIONS AND DEVELOPMENT IMPACTS 9.CONSULTANT(S) (1) Rehabilitation of MWSS wells 27,000 m3/dey of groundwater can be augmented by rehabilitation of 100 Nippon Jogesuido Sekkei Co., Ltd. Kokusai Kougyo Co., Ltd. (2) Groundwater development in Antipolo An amount of 6,000 m3/day of groundwater can be developed. It will serve for a population of 24,000 in Antipolo area (250 lpcd) (3) Groundwater Monitoring in Metro Manila It is effective for conservation of groundwater and prevention of saline water intrusion in the area, where 900,000 m3/day of groundwater **10.STUDY TEAM** is presently being withdrawn.
(4) Groundwater Investigation in Rizal Provice: Preparation for future No.of Members 12 Period Aug. 1990-Jun. 1992 (22 months) **2.MAJOR REASONS FOR PRESENT STATUS** Field Total M/M Japan Most of MMSS's budget is being used for extension of waterworks (Central 23.00 75.22 Distribution System). Due to shortage of budget, HWSS can not afford to implement proposed projects, thereby requesting foreign assistance. 98.22 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY (1) Test Well Drilling and Pumping Tests (2) Pumping Test of Existing Wells (3) Site Inspection on Existing Wells 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE (1) Well rehabilitation procedure and techniques Manual of maintenance and Total 412,770 (¥'000) rehabilitation, (2) Database and groundwater simulation, (3) Experimental Well Rehabilitation 403, 912 Contracted

ASE SGP/S 101/78

Compiled Mar.1986 Revised Dec.1992

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY  2.NAME OF STUDY  Dredging Project of	Singapore the Strait of Singapore	1.SITE OR AREA Strait of Singapore 2.PROJECT COST	1.PRESENT STATUS In Progress or In Use Delayed Discontinued		
		(US\$1,000) Total Cost Local Cost Foreign Cost (US\$1,000) 1) 24,937	(Description)  (FY1991 Overseas Survey)  The dredging was successfully completed consequent to the technical study		
3.SECTOR Transportation/Port		3.CONTENTS OF MAJOR PROJECT(S)	concerned.		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Port and Harbour Bureau Ministry of Transport		Plan for deepening the shallow areas(4 sites) in Singapore Strait.  Based upon the bathymetric surveys, seisemic surveys, Boring, and Inspection by divers, the followings are proposed.  (1) Dredging Method: Grab Dredger  (2) Dredging Volume: 484,000cu.m(area 165,000sq.m)  (3) Monthly Production: 38,000cu.m(by 7cu.m Grab)  89,900cu.m(by 13cu.m Grab)			
7.OBJECTIVES OF STUDY Proposal on dredging me	ethod and cost estimates				
8.DATE OF S/W	Jul.1978				
9.CONSULTANT(S)		4.CONDITIONS AND DEVELOPMENT IMPACTS  Very Large Carriers (Vessels) can pass the Singapore strait.			
Overseas Coastal Area	Development Institute of C	It enables that far eastern countries can obtain crude oil and other raw materials for cheaper transportation cost.			
	ool galle kale di 1880 wax National di Salamani (1885) wax di kale ayaan ay maa ay				
No.of Members 2 Period Aug. 1978-M	[ar.1979(6 months)				
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS		
32,50 11.ASSOCIATED AND/OR SUBCONTRACTED STUL	13.13 19.3		(FY1991 Overseas Survey) The dredging was deemed necessary in connection with the introduction of Traffic Separation Scheme in the Strait of Singapore.		
12.EXPENDITURE	104.470.0000	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION		
Total Contracted	124,172 <b>(¥'00</b> 0 113,950		02		

ASE SGP/S 301/86

Compiled Mar.1990 Revised Dec.1992

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS			III. PRE	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY  2.NAME OF STUDY  Plant Renovation Pro-	Singapore ject of the Sentosa-1	1.SITE OR AREA Sentosa Island of Singapore			1.PRESENT STATUS	☐ Completed or in Progress ☐ Completed ☐ Panially Completed	☐ Promoting ☐ Delayed or Suspended	
Earth Station		2.PROJECT COST 1) 2) 2) 3)	Total Cost 770 2,160	Local Cost Foreign Co	(Description)	○ Implementing ○ Processing	Discontinued or Cancelled	
3.SECTOR  Communications & Broadca  4.REFERENCE NO.	sting/Telecommunication	3.CONTENTS OF MAJOR PROJECT(S) The Plant Renovation Project: 1) 5 years life extension Antenna mechanical part 6 structure	e - partial repair	ing mathy and personal and an entire the second property of the second s	The project was 1) The antenna less flexible	s discontinued. was the old type (york tower typ le for expansion. andards of the antenna were chang		
5.TYPE OF STUDY 6.COUNTERPART AGENCY Telecommunication Author	- Barrier	Antenna servo drive system - to report of the system - to report of the system - to report of the servo drive system - to report of the system - to	e - total repair place all		(FY1991 Overse: No additions	as Survey) al information.		
7.OBJECTIVES OF STUDY To study the plant reno	vation of the SENTOSA-1							
8.DATE OF S/W	Feb.1985	Imp. Period: Aug.1985-Jan.1986						
9.CONSULTANT(S)	s Engineering and Consulti	4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes/No	EIRR1) EIRR2) EIRR3)	FIRR1) FIRR2) FIRR3)				
10.STUDY TEAM		Conditions and Development Impa (1) The objectives of study was to inv. feasibility of service life extens life of the earth station. (2) The result of the study(report) qa of the earth station expansion pro	estigate the ion over the design ve exact informati					
No.of Members 4 Period Mar.1986-Ju	ul.1986(5 months)	Telecoms						
Total M/M	Japan Field				2.MAJOR RE	ASONS FOR PRESENT STAT	JS	
7.64	5.40 2.24							
11.ASSOCIATED AND/OR SUBCONTRACTED STUD								
10 EVDENBYET DE		5.TECHNICAL TRANSFER To submit the diagnosis of service lif	a extension over t	he design life of the	3 PRINCIPAL	SOURCE OF INFORMATION		
12.EXPENDITURE Total Contracted	24,504 <b>(¥'000)</b> 18,662		e evreusion over c	TESTAN TITE OF PHE	02			

ASE SGP/S 302/88

Compiled Mar.1990 Revised Mar.1993

I.COUNTRY   Singapore   I.SITE OR AREA    O Completed   O Partially Completed   Dela    O Implementing    Nation to five suggested routes, the Sentosa Development    South a five suggested routes, the Sentosa Development    Acong the five suggest	
STATUS   Completed   Dela	III. PRESENT STATUS OF STUDIED PROJECT
Singapore Urban Transport Improvement    2.PROJECT COST	
3.CONTENIS OF MAJOR PROJECT(S) The study prepared plans to improve the feeder transport systems by introducing a new transportation transportation transportation transportation transportation (Parameter State of the support of the route for the support of the s	O Partially Completed Delayed or Suspended Implementing
Evaluation of technical and operational feasibility of introducing a new transport system  8.DATE OF S/W Apr.1987 Imp. Period:  9.CONSULTANT(S) AIMEC Corporation Pacific Consultants International  The concept of IRT was generally accepted and incorporation plan for urban transport.  Feasibility: EIRR1) FIRR1) EIRR2) FIRR2) EIRR3)  Conditions and Development Impacts:  Condition:	Among the five suggested routes, the Sentosa Development Corporation and the Public Works Department are interested in implementing the Orchard - Sentosa Route, and taking steps to prepare part of the route for international tender. The Simpang New Town System is being studied further by the Housing Development Board in order to integrate it with the overall new town planning.  The Ang Mo Kio New Town - Marine Parade Route has been included in the official arterial transport network plan.  No significant actions have been taken on the Ang Mo Kio New Town Route and the Orchard - Marina Centre Route. Because of the competing new towns development, it is difficult for the Government to muster a consensus over a new system for Ang Mo Kio New Town. The area along the Orchard-Marina Centre Route is heavily builtup and a more detailed study and inter-agency
9.CONSULTANT(S)  ALMEC Corporation Pacific Consultants International  Conditions and Development Impacts:    A.FEASIBILITY AND   Feasibility:   EIRR1)   FIRR1)   FIRR2)   EIRR3)   FIRR3)	The concept of LRT was generally accepted and incorporated in the Concept
AIMEC Corporation Pacific Consultants International  Conditions and Development Impacts:  Condition:  Peasion Ty. FERR2) FIRR2) FIRR3)	
10.STUDY TEAM  1) Reduction of pollution (air pollution and noise) 2) Improvement of traffic safety 3) Time saving by passengers 4) Urban development in the vicinities of stations.	
Total M/M Japan Field 2.MAJOR REASONS FOR PRESENT STATUS	2.MAJOR REASONS FOR PRESENT STATUS
53.23 8.70 44.53  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Topographic survey  5.TECHNICAL TRANSFER	
12.EXPENDITURE  Total  Contracted  1.1. EXPINITE A seminar was held in Feb. 1990, with approximately 300 perticipants.  A seminar was held in Feb. 1990, with approximately 300 perticipants.  Contracted  1.1. EXPENDITURE  3. PRINCIPAL SOURCE OF INFORMATION  (1.2. )	

ASE SGP/S 303/90

Compiled Mar.1992 Revised Mar.1993

I. OUTLINI	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Selected Expressways	Singapore	Central and northeastern parts of Singapore  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 487,000 2)	1.PRESENT Completed or in Progress Promoting Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Fish Proced 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Public Works Department National Development (Inc.) 7.OBJECTIVES OF STUDY Analysis of feasibility expressways; PIE, KLE,	F/S Y t (PWD), Ministry of MND) y on the selected three	3) 3.CONTENTS OF MAJOR PROJECT(S) 1) Improvement of PIE (Pan Island Expressway, 8.65km) 2) New construction of KLE (Kallang Expressway 2.68km) 3) New construction of PYE (Paya Lebar Expressway 10.17km)	A part of PIE was put to tender during the study period, and contractors were selected. The next section will be tendered soon. Construction of KLE and PYE will proceed in due course to detailed design, tender and construction in accordance with the schedule set by the PWD. As for PYE, the target year for construction is set for 2009. Implementation schedule: PIE:PIE/Moodsville Road IC - PIE/CTE IC Completion in 1994 PIE/CTE IC West - PIE/BKE IC Completion in 1995 KLE:KLE/ECP IC - KLE/PIE IC Completion in 1997 PYE:PYE/PIE IC - PYE/TPE IC Completion in 2010 Estimated Project Cost (million S\$ PIE KLE PYE Construction Cost 84.4 276.4 358.1 Land Acquisition and Compensation Costs 0.0 33.2 17.3 Contingencies (10t) 8.4 31.0 37.5 Total 92.8 340.6 412.5  (FY1991 Overseas Survey) The findings of the study were incorporated in the Concept Plan. The inhouse detailed design was made on part of PIE during 1990 - 1993. The construction is scheduled for 1991 - 1995, wholly financed by domestic funds. (FY1992 Overseas Survey) The project is financed by the Government of Singapore (PIE: S\$ 93.3 Mil., KLE: S\$ 332.8 MIl). Construction began in Apr. 1992. Scheduled to be completed in 1999.
8.DATE OF S/W 9.CONSULTANT(S) Oriental Consultants Co	Oct.1989	Imp. Period: .19902009  4.FEASIBILITY AND Feasibility: EIRR1) 6.00 FIRR1) ITS ASSUMPTIONS Yes EIRR2) 60.00 FIRR2) EIRR3) 79.50 FIRR3)  Conditions and Development Impacts: Conditions: PIE: Widening of expressway from 6 lanes to 8 lanes RLE 4 PYE: New construction of expressway with 6 lanes	
No.of Members 9 Period Mar.1990-M	]    ar.1991(13 months	Development Impacts:  1. Saving of total traveling time  2. Saving of total vehicle operating cost  3. Reduction of traffic accidents and environmental impacts  The improvement of PIZ and the construction of KLE and PYE are considered feasible in technical, economic and social aspects.	
Total M/M 46.08  11.ASSOCIATED AND/OR SUBCONTRACTED STUI	2.50 4	eld .58	2.MAJOR REASONS FOR PRESENT STATUS  Development of the expressway system is considered urgent to maintain high standards of social infrastructure services in Singapore.
12.EXPENDITURE Total Contracted	164,071 <b>(</b> 152,700	5.TECHNICAL TRANSFER  1. Methodology of alternative evaluation. 2. Clarification of issues solved and proposal of solutions.	3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASO LKA/S 301/77

Compiled Mar. 1986 Revised Mar. 1993

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Outside Colombo Area  Development Scheme:Sta		1.SITE OR AREA  Colombo and six other major cities (Jaffna, Trincomalee, Anuradhapura, Kuruneqala,, Badulla, (Ratnapura)  2.PROJECT COST  Total Cost Local Cost Foreign Cost (US\$1,000)  1) 8,341 1,658 6,683	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR  Communications & Broadcas  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  Ministry of Post and Tel  7.OBJECTIVES OF STUDY	F/S	J. 3)  3. CONTENTS OF MAJOR PROJECT(S)  1) Subscriber trunk dialling systems: 6 cities except Colombo  2) Cross-bar systems  - 6 local switches (total of 14,500 terminals): Colombo Central, Anuradnapura, Jaffna, Kurunegala Ratnapura, Badulla, Trincomalee  - Toll switch (400 terminals): Colombo Central  - Toll transit switch (200 terminals): Colombo Central  3) Toll transmission paths (new and extension)  New microwave radio systems (3 paths); Extension of microwave radio systems (2 paths); new UHF system (1 path); and Cable carrier systems (2 paths)  4) Local cables at 6 telephone offices: Aerial cable 68km and underground cable 30.5km (Badulla, Colombo Central, Jaffna, Kurunegala, Ratnapura)  5) 5 office buildings  Badulla Telephone Office and four radio repeater stations ( Single Tree Hill, Namunukula, Suriyakanda, Kurunegala Rock)	(Description) The project was implemented by the CECF loan.  Mar. 1978 OECF loan agreement signed (1,940 million yen) Dec. 1982 Implementation completed
8.DATE OF S/W 9.CONSULTANT(S)	.0	Imp. Period: .19791982  4.FEASIBILITY AND Feasibility: EIRR1) 15.10 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2)	
10.STUDY TEAM  No.of Members 10  Period Jan.1977-Ju	•	Conditions and Development Impacts:  Conditions  Project life of 20 years, costruction period of 2 years, and discount rate of 15%  Assuming that the India - Sri Lanka Microwave System (which is expected to be used as the transmission line of the proposed projet) be completed by the end of 1978, 50% of its construction cost is included in the project cost.  Operation & maintenance costs are assumed to be 3.5% and 12% respectively of the construction cost.  Development impacts:  Extension of telecommunication to regional cities which are now inadequately	
Total M/M 21.00  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 2.00 19.00	serviced 2) Reduction of waiting subscriber applications 3) Stimulation of socio-economic development in Colombo and 6 regional cities	2.MAJOR REASONS FOR PRESENT STATUS
12.EXPENDITURE  Total  Contracted	22,095 <b>(¥'000)</b> 69,027	5.TECHNICAL TRANSFER	3.PRINCIPAL, SOURCE OF INFORMATION  ①②

Revised Mar. 1993 ASO LKA/A 301/77 III. PRESENT STATUS OF STUDIED PROJECT II. SUMMARY OF STUDY RESULTS I. OUTLINE OF STUDY 1.COUNTRY 1.SITE OR AREA 1.PRESENT Completed or in Progress Promoting Sri Lanka STATUS Puttalum District Completed 2.NAME OF STUDY O Partially Completed Delayed or Suspended Inginimitiya Reservoir Project Local Cost Foreign Cost Total Cost 2.PROJECT COST O Implementing 13,600 9,000 1) 23,200 ☐ Discontinued or Cancelled O Processing (US\$1,000) 2) US\$1=7.28Rs. (Description) 3) 3.SECTOR The proposed project was completed by the OECF loan. 3.CONTENTS OF MAJOR PROJECT(S) Agriculture/General Aug. 1978 OECF L/A signed (1,800 million yen) ] Irrigation Area: 2,500 ha Jun.1979 - Jun.1984 D/D and engineering Service undertaken by Japan Engineering Consultants Co., Ltd. 4.REFERENCE NO. Sep.1981 Construction started Type: Homogeneous type Mar.1985 Construction completed 5.TYPE OF STUDY F/S Length: 3.97 km Top width: 6.10 m 6.COUNTERPART AGENCY Approximate number of cubes: 1,112,190 cu.m Earth dam (length4,648m, height 18m, Cap.60.19 milliontons)
- Irrigation facilities (existing 664 ha, new 1,887ha) Ministry of Irrigation, Power and Highways Reservoir Land clearing & preparation and settlement (1,680 households) Effective storage capacity: 60.2 MCM Total drainage area: 614,685 sq.km Maximum annual yield (for 150 sq.miles): 415,574,000 cu.m (FY 1992 Overseas Survey) (FI 1992 Overseas Survey)
The dam has already been in use. However, owing to the shortage of water, the planted area was far below the planned target (approx. 50% of the target 7.OBJECTIVES OF STUDY ) Main Canal Type: Earth Channel Rural Development by the Dam Construction and Length: LB 21.40 km Presently a study to identify the reasons of the water shortage (SAPS) is being conducted, and the final report is due in March 1993. RB 26.06 km Irrigation area: LB 1,620 ha RB 931.5 h Downstream Development 8.DATE OF S/W Dec.1976 Imp. Period: FIRR1) 4.FEASIBILITY AND EIRR1) 18,00 Feasibility: 9.CONSULTANT(S) FIRR2) EIRR2) ITS ASSUMPTIONS Yes Japan Engineering Consultants Co., Ltd. FIRR3) EIRR3) Conditions and Development Impacts: 1) A five year project implementation and a 50 year project life
2) The output in the newly developed land in the 6th and the 11th year will be as follows: Paddy Soya Bean 939.2 304.8 10.STUDY TEAM Pulses Chillies (kg) 304.8 609.6 254 508 355.6 762 11th year 1,669.6 609.6 508 762
3) Projected 1985 world market prices in terms of 1976 dollars for agricultural No.of Members inputs and outputs. Period Mar.1977-Aug.1977(6 months) 4) Benefit by increasing the agricultural products 1) Increase the agricultural products
2) Create the farmer organizations and improve rural living condition Field 2.MAJOR REASONS FOR PRESENT STATUS Total M/M Japan 7,70 13.80 21.50 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE Total 56,276 (¥'000) 034 Contracted 48,427

和名 インギニミチャ灌がいダム計画

Compiled Mar.1990

ASO LKA/A 302/79

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS		III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Moragahakanda Agricul Project	Sri Lanka tural development	(US\$1,000) 1) 187,470 63,670 1	1	PRESENT STATUS  Completed or in Progress Promoting Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Agriculture/General 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Mahaweli Development Box 7.OBJECTIVES OF STUDY Development by dam considerations of the consideration of the conside	ard	US\$1=15Rs in Dec.1978  3)  3.CONTENTS OF MAJOR PROJECT(S)  1.Dam and Reservoir Effective Storage Capacity: 686 MCM Dam Type: Rockfill (Main Dam and 2nd saddle-dam) Concrete Gravity (1st Saddle-dam) 2.Downstream Development Irrigation area: 62,200 ha Canal Irrigation Canal 145.2 km Drainage Canal 91.4 km	aga was Aft nan (E to dan 1st pha gre	Moraqahakanda agricultural development project (Dec.1979-F/S) was reviewed ain and a survey for Mahaweli ganga master plan was executed and its report a submitted on May.1989.  ter presentation of this report, Master Plan of Feasibility Plan in the same me as this study was done for reconsideration and completed in 1990.  FY 1992 Overseas Survey)  Another JICA study (M/P+F/S) was conducted in two phases during 1988 - 1989 review this feasibility study. The new study proposed the construction of ms, irrigation development (62,000ha) and a hydropower plant (25MW) in the tiphase and proposed 3-stage development plan for the NCRB area in the 2nd ase.  The Sri Lankan government is now considering the construction of Karuganga m proposed by the new study. As a result, the proposals of this F/S were eatly changed.  Y1993 Overseas Survey)  Changes indeveloping policy and priority in connection with restructuring the Government caused the delay.
8.DATE OF S/W	Jul.1978	Imp. Period: .19801988		
9.CONSULTANT(S)  Japan Engineering Consu- Nippon Koei Co., Ltd.	ltants Co., Ltd.	4.FEASIBILITY AND Feasibility: EIRR1) 12.00 FIRR1) ITS ASSUMPTIONS  Yes  EIRR2) EIRR3)  Conditions and Development Impacts:  Conditions: Benefit by hydroelectric power for the electric supply capacity and by irrigs for the agricultural products.	tion	
10.STUDY TEAM  No.of Members 15  Period Oct.1978-Se		Development Impacts: Increase of the agricultural products, improvement of an unemployment problem Development of social economy		
Total M/M 92.70 11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Japan         Field           51.10         41.60		Uno The	MAJOR REASONS FOR PRESENT STATUS  der adjustment of priority for project in the government of Sri Lanka.  de deterioration of the safty condition in the Northern area due to the divities of LTTE (Tamir-Islamic guerrilas)
12.EXPENDITURE Total Contracted	231,530 <b>(¥'000)</b> 210,460	5.TECHNICAL TRANSFER OT	3.I ①X	PRINCIPAL SOURCE OF INFORMATION  ②

和名 モラガハカンダ農業開発計画

Compiled Mar.1990

Revised Mar. 1994

Compiled Mar.1990 Revised Mar.1994

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT	
1.COUNTRY Sri 2.NAME OF STUDY Development Project of the	. Lanka ne Port of Colombo	1.SITE OR AREA  Colombo (Field investigation was also conducted at Galle and Trincomare Pors)  2.PROJECT COST M/P 1) 130,360 Local Foreign (US\$1,000) (US\$1,000) (US\$1=218.39Yen) F/S 1) 70,458 16,418 54,040	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
3.SECTOR Transportation/Port  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  Sri Lanka Ports Authority	P+F/S	2) 3)  3.CONTENTS OF MAJOR PROJECT(S) <pre> </pre> <pre> </pre> <pre> </pre> <pre> </pre> <pre> 3.CONTENTS OF MAJOR PROJECT(S)  <pre> </pre> <pre> </pre> <pre> <pre> </pre> <pre> </pre> <pre> <pre> CM/P&gt; The study formulated a Master Plan with a target year of 1988.  1. Conventional berths  1) One new berth (KQ \$2): -12m x 250m (to be modified to a container berth after 1988)  2) Expansion one berth to two berths: -9m x 165m &amp; expansion 50m  3) Others (3 berths converted to ship repair berths, one berth converted to a container berth)  2. Container berths  1) Three new berths (KQ \$1, \$2, \$3) 2) Containerizaton of QEQ \$5 (crane foundation, etc.)  3. One oil berth: Dolphines, pipelines, bunkering facilities, etc. </pre></pre></pre></pre>	(Description)  Date of OECF L/A Amount Oct. 1980 7,600 million Yen Apr. 1984 6,362 " Jan. 1985 2,579 " Oct. 1987 1,955 " Mar. 1990 6,329 "  Construction for port improvement began in October 1988. Construction for port expansion began in May 1990.  (FY 1991 Overseas Survey) 1991 Construction is started.  (FY 1992 Overseas Survey)	
7.OBJECTIVES OF STUDY Formulating of: Short Term Development Plan Development Plan  8.DATE OF S/W May		<ol> <li>Cargo handling equipment (85 fork lifts, 8 mobile cranes 6 one floating crane)</li> <li>Road 5.7km (two-lane in 1982 four-lane in 1988)</li> <li>Sef/Sourgent Plan</li> <li>One new conventional berth (KQ #2): -12m x 250m</li> <li>Conversion of one berth to a ship repair berth</li> <li>Cargo handling equipment (38 3-ton fork lifts, 47 5-ton fork lifts, 30-ton mobile cranes and one floating crane)</li> <li>One new container berth (KQ #1): -12m x 300m</li> <li>Crane foundation and others for QEQ #5: -11m x 200m</li> <li>container equipment (3 container cranes, etc.)</li> <li>Road 5.7km (two-lane)</li> </ol>	The project is scheduled to be completed in 1993, but no funding is yet made available for the North Pier.  (FY 1992 Overseas Survey)  No additional information.	
9.CONSULTANT(S)  Overseas Coastal Area Develo	opment Institute of Ja	Imp. Period: Feb. 1981-Dec. 1983  4.FEASIBILITY AND Feasibility: EIRR1) 17.10 FIRR1) 8.22 FIRS ASSUMPTIONS Yes EIRR2) FIRR2) FIRR3) FIRR3)		
10.STUDY TEAM  No.of Members 9  Period Jun.1979-Mar.1		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>		
	apan rieid	will be improved to insure better linkage with Colombo City.  5) An urgent need for the expansion of large vessel repair facilities.  Demand Forecast: ('000 tons) 1983 1988  [figures in ( ) show Dry cargo 3,313 (899) 4,573 (2,398) containerized cargo] Wet cargo 2,865 3,108 <pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre> </pre>  <pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	2.MAJOR REASONS FOR PRESENT STATUS  High return from the project  3.PRINCIPAL SOURCE OF INFORMATION  1024	

和名 コロンボ港整備計画

ASO LKA/S 201B/80

#### PROJECT SUMMARY (Other)

Compiled Mar. 1990

ASO LKA/S 601/80		Revised Mar.1992
I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
1.COUNTRY Sri Lanka  2.NAME OF STUDY  Development Project of the Port of	1.SITE OR AREA	1.PRESENT  STATUS  ☐ In Progress or In Use ☐ Delayed ☐ Discontinued
Colombo(follow-up)	2.PROJECT COST  (US\$1,000)  Total Cost Local Cost Foreign Cost	(Description)
3.SECTOR Transportation/Port	3.CONTENTS OF MAJOR PROJECT(S)  The study term explained the technical farmer involved in the construction of the	
4.REFERENCE NO.  5.TYPE OF STUDY Other  6.COUNTERPART AGENCY	The study team explained the technical issues involved in the construction of the container berth which was proposed by the F/S conducted in FY 1979 and will be financed by OECF.	
7.OBJECTIVES OF STUDY  Technical explanation to the government authorities		
8.DATE OF S/W .0	4.CONDITIONS AND DEVELOPMENT IMPACTS	
9.CONSULTANT(S)  Overseas Coastal Area Development Institute of		
10.STUDY TEAM  No.of Members  Period Aug. 1980-Sep. 1980 (0 months)		
Total M/M Japan Fie	d	2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY		
12.EXPENDITURE  Total 1,510 (¥'00)  Contracted 1,510	5.TECHNICAL TRANSFER 0)	3.PRINCIPAL SOURCE OF INFORMATION  ①

和名 コロンポ港整備計画アフターケア

{M/P,Basic Study,Other}

ASO LKA/A 303/81

Compiled Mar.1990 Revised Mar.1993

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Sri Lanka  2.NAME OF STUDY  Mahaweli Ganga Agricultural  Development:System C	1.SITE OR AREA Right Bank on the lower Mahaweli Ganga (68,000ha)  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 85,300 40,100 45,200 2)	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR  Agriculture/General  4.REFERENCE NO.  5.TYPE OF STUDY F/S  6.COUNTERPART AGENCY  Mahaweli Development Board  7.OBJECTIVES OF STUDY  Agricultural products increased by improvement of irrigation system	3) 3.CONTENTS OF MAJOR PROJECT(S)  1.Main Canal 17.4 km 2.Branch Canal 54.7 km 3.Farm ditch 50.1 km 4.Main drains Kuda Oya, Hunqamala Ela 5.Reclamation (Block 3.4.5) 1) Land clearing 9,255 ha 2) Distributor and field channels 6,960 ha 3) Secondary and field channels 6,960 ha 4) On-farm development 6,960 ha 5) Roads 130 km 6.Equipment and Vehicles 1) Maintenance equipment 2) Management and operation vehicles 3) Tractor hire service equipment and vehicles 4) Social infrastructure vehicles 5) Settlement vehicles	(Description)  (FY1991 Overseas Survey) The project is under implementation. 90% of the project has been completed.  (FY1992 Overseas Survey) The construction of the main and branch canals were completed at the end of 1992. The construction of end canals, drainage and pavements is scheduled to be completed during 1993. Technical quidance in agricultural technology and water management is being conducted by Dept. of Economics, Mahaweli Authority (to be continued till 1994). The project has been financed by OECF, IDA and Kuwait Fund.  Oct.1981 OECF L/A signed (7,700 mil. yen) May 1988 OECF L/A signed (2,950 mil. yen) Main and branch canals were completed in the end of 1992. Tertiary irrigation and drainage canals and rural roads will be completed in 1993.  Japanese Grant Aid: Dec.1982 E/N signed (996 mil. yen for the Pilot Farm)  Japanese Technical Cooperation (project type): Feb.1985 - Jan.1990 Trials and demonstration on the pilot farm Dec.1990 - Nov.1992 Follow-up technical cooperation (an expert in upland farming) Nov.1992 - Oct.1994 After-care technical cooperation (experts in
8.DATE OF S/W .0  9.CONSULTANT(S)  Japan Engineering Consultants Co., Ltd. Nippon Koei Co., Ltd.  10.STUDY TEAM  No.of Members 6  Period Mar.1981-Mar.1981(1 months)	Imp. Period: .19821986  4.FEASIBILITY AND Feasibility: EIRR1) 16.80 FIRR1) ITS ASSUMPTIONS  Yes EIRR2) FIRR2) EIRR3)  Conditions and Development Impacts:  Conditions: (1) Construction period: 5 years (2) Increase of benefits by agricultural products.  Agricultural outputs (yearly) rice 124,420 tons pepper 230 tons Maize 1,220 tons Cowpeas 310 tons Coffee 590 tons Groundnut 590 tons Cocos 260 tons	agricultural machinery and dry-field farming)  The Sri Lankan Government desires continued technical assistance from JICA in diffusion of farming and maintenance and management of the facilities.
Total M/M Japan Field 3.00 1.80 1.20  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Development Impacts: Improvement of agricultural products and agricultural income Contribution to alleviate the food shortage problem  5.TECHNICAL TRANSFER	2.MAJOR REASONS FOR PRESENT STATUS
12.EXPENDITURE 28, 983 (¥'000) Contracted 7,000		3.PRINCIPAL SOURCE OF INFORMATION  ①233

ASO LKA/S 302/82

Compiled Mar.1988
Revised Mar.1994

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Sri Lanka  2.NAME OF STUDY  Water Supply Scheme for Amparai Group of	1.SITE OR AREA  Amparai district located at east coast Ceylon Island  2 PROJECT COST  Total Cost Local Cost Foreign Cost	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended
Towns	(US\$1,000) 1) 20,300 13,100 7,200 (US\$1=250Yen=20.8Rp) 2)	O Implementing O Processing Discontinued or Cancelled
3.SECTOR Public Utilities/Timber Processing  4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY National Water Supply and Drainage Board  7.OBJECTIVES OF STUDY F/S on local water supply system for improvement on shortage of supply and environment hygiene	3) 3.CONTENTS OF MAJOR PROJECT(S)  Service Area 1995 : 2,732 ha 2005 : 3,325 ha  Served Population 1995 : 172,300 2005 : 261,100  Daily Max. 1995 : 27,400 cu.m/day 2005 : 53,900 cu.m/day water Sources Amparai area : Amparai reservoir Coastal area : Sambuveli weir (surface water)	(Description)  The study has been highly appreciated by the National Water Supply and Drainage Board. The Ministry of Finance was planning to execute the project upon confirmation of availability of local currency portion.  As of Aug.1987, it was reported that the project was started by IDA fund and a British consultant was selected in July 1987.  The situation unchanged in 1991.  (FY 1991 Overseas Survey) No additional information  (FY 1992 Overseas Survey) At this moment (March 1993), the donar(s) for the project has not been decided. Once it is decided, the implementation of the project will be reconsidered.  (FY1993 Overseas Survey) Detailed designs of the Ampara W.S.S. have to be reviewed to match the current demand. Because adonor agency is not identified, implementation of the project is delayed.
8.DATE OF S/W Dec. 1981	Imp. Period: Jun.1983-Dec.1986	
9.CONSULTANT(S) Nihon Suido Consultants Co., Ltd.	4.FEASIBILITY AND   Feasibility:   EIRR1)   FIRR1)   4.91   FIRR2)   FIRR2)   FIRR3)   Conditions and Development Impacts:	
10.STUDY TEAM  No.of Members 6  Period Feb.1982-Oct.1982(8 months)	In the project area, people get potable water out of shallow wells. With the proposed project, environment will improve and also employment opportunities increase. At present, water has been supplied to only 27,000 persons among project area population of 146,000(1981). However, by the project execution, water will be supplied to 172,000 persons out of project area population of 237,000 in the year 1995.	
Total M/M Japan Field		2.MAJOR REASONS FOR PRESENT STATUS
45.61 27.41 18.20 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	5.TECHNICAL TRANSFER	Due to shortage of government fund, the Sri Lanka Government did not make any official request for assistance from Japan.
12.EXPENDITURE 112,094 (¥'000)		

#### PROJECT SUMMARY (Other)

Compiled Mar.1990 Revised Mar.1992

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRES	SENT STATUS OF STUDY RESULTS
1.COUNTRY  2.NAME OF STUDY  Colombo Airport Devel	Sri Lanka opment (follow-up)	1.SITE OR AREA katunayake	1.PRESENT STATUS	In Progress or In Use  ☐ Delayed ☐ Discontinued
		2.PROJECT COST  Total Cost Local Cost Foreign Cost  1) 115,739 25,525		s included in the 1984 Public Investment Plan and was 3. The F/S was undertaken by Netherlands Airport Consultants
3.SECTOR Transportation/Air Transp	ortaion & Airport	(US\$1=20.55Yen) 2)  3.CONTENTS OF MAJOR PROJECT(S)  As a result of comparative study of urgency between new runway	BV (NACO). Financing of th OECF - Passeng EXIM Japan - R	ne project was as follows. [er Terminal (10,200 million yen) wunway
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC	Other Y	construction and terminal complex development, new runway construction is recommended as having a higher priority.  Following inprovements had been proposed for Phase I development (Target year: 1990):  - Construction of a new runway (3,350m long) and conversion of the	UK ODA - Navai France - Other (FY1991 Overseas No additional i	: facilities Survey)
Airport and Aviation Se		existing runway to a new paracklet taxiway.  - Construction of new exit taxiways  - Expansion of the existing passenger building (floor area : approx.  10,700 m2 - 36,000 m2, peak-hour capacity ; 2,100 passengers)  - Construction of AASL maintenance center and administration headquarter	Market Commission of the Commi	
7.ORJECTIVES OF STUDY Detailed investigation	<b>-</b> <sup>1</sup> .	<ul> <li>Construction of rescue and fire fighting facilities</li> <li>Installation of VASIS, runway lights, etc ( precision approach Cat.I)</li> <li>Construction of utility facilities such as sewage treatment plant and patable water supply.</li> </ul>		
8.DATE OF S/W	.0			
9.CONSULTANT(S)		4.CONDITIONS AND DEVELOPMENT IMPACTS  Greatly improved handling of air passengers and other users of airpor		
Japan Airport Consultan	es, me.	Provision of adequate separation distance between the new runway and the parulled taxiway would secure safe and efficient take-off and leading of aircraft. The capacity of the passenger aerminul building was expected to be tremendously increased by tripling the total floor space.  The new building concept of segregating the departure and arrival passenger flows would upgrade passanger services as well as rediability of security. It was strongly recugnized that harmonized development of each		
No.of Members 2 Period Dec.1981-M	ay.1982(6 months)	security. It was strongly recugnized that harmonized development of each facility within the framework of the master plan be imperative in order to achieve the above-mentioned development impacts.		
Total M/M 4.42	Japan Field		2.MAJOR REA	SONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUD				
12 EXPENDITURE Total Contracted	26,740 <b>(¥'000</b> ) 8,869	OJT is made by having the local consultants assist the Japanese consultants in the supervision of construction.	3.PRINCIPAL S	OURCE OF INFORMATION

和名 コロンボ空港整備計画アフターケア

ASO LKA/S 602/82

{M/P,Basic Study,Other}

ASO LKA/S 303/83

Compiled Mar.1986 Revised Mar.1994

I OTHER DATE	COUCTION	H CHMMADY OF CTHEY DECLIETE	III. PRESENT STATUS OF STUDIED PROJECT
I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	
1.COUNTRY	Sri Lanka	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY		Colombo metropolitan area	STATUS Completed
1	pressway and New Port	2.PROJECT COST Total Cost Local Cost Foreign Cost	O Partially Completed Delayed or Suspended
Access Road Project		(US\$1,000) 1) 51,080 19,790	● Implementing ○ Processing □ Discontinued or Cancelled
		(US\$1/225Yen=23Rs) 2)	
3.SECTOR		3)	(Description)
Transportation/Fish Proces	ssing	3.CONTENTS OF MAJOR PROJECT(S)  [Project A]	The D/D of the port access road (1.5km) of Project B was undertaken as part of the OECF loan on the Colombo Port improvement (L/A in Oct.1987, 1,955
4.REFERENCE NO.		11) Main Road 25.4km	million yen).
5.TYPE OF STUDY	F/S	K-1:Dalugama IC - Ragama IC 7.1km; K-2:Ragama IC - Ekala IC 8.4km K-3:Ekala IC - Airport 9.9km 2) Alternatives and affiliated roads	Mar.1990 OECF E/S loan agreement (520 million yen) on Colombo - Katunayake Express way
6.COUNTERPART AGENCY		W. A. Maryaldura - Miribathmoda (Annaga Doad to Divagama) 1 7km	Jun.1990 D/D started Dec.1992 D/D completed
Greater Colombo Economi		K-5:Ekala IC - Neqombo(A3)Road 3.1km; K-6:Danduqam - Airport 9.5km K-7:KIPZIC - Canada Sri Lanka Friendship Road 1.6km [Froject B] 1) Main Road 5.7km	
	, ,	P-1:Colombo Port - Prince of Wales Avenue 1.6km P-2:Prince of Wales Avenue - Pelivagoda 1.5km	(FY1993 Overseas Survey)  Land acquisition and resettlement are in progress.
		P-3:Peliyaqoda - Daluqama(Along Kandy) 2.9km 2) Alternative and affiliated roads	
7.OBJECTIVES OF STUDY		P-4:Peliyagoda -Dalugama (Along Kandy) 2.6km P-5:Peliyagoda - Wattala 1.0km	
	4		
	•		
O DATE OF CAN	Sep.1982	Imp. Period: Jan.1986-Dec.1989	
8.DATE OF S/W	Sep.1902		
9.CONSULTANT(S)	Taradantad Tara	4.FEASIBILITY AND Feasibility: EIRR1) 18.50 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2)	
Japan Bridge and Struct Kokusai Kougyo Co., Ltd	· ·	EIRR3) FIRR3)	
		Conditions and Development Impacts: [Conditions]	
		Start of operation in 1990; the project life of 25 years; opportunity cost of capital at 12%.	
10.STUDY TEAM	I	(Development Impacts) 1) Establishment of an efficient road network through the separation of	
		passing traffics and large vehicles. 2) Productivity improvement in the GCEC area and Gampaha District as the	
No.of Members 2:		result of transport connection. 3) Inducement of new industrial investments to Katunayake Investment	
Period Dec.1982-Ja	an.1984(13 months)	Promotion Zone and elsewhere. 4) Expansion of the regional market due to the construction of new roads,	
Tr. 0.1 140 f	v 12:.14	particularly of the expressway.  5) Shortening of the commuting time within GCEC area and Gampaha	ANATOR DE ACOMO POR PRECENTO CELATRIO
Total M/M	ampani	pistrict, and the resulting population diffusion effect.	2.MAJOR REASONS FOR PRESENT STATUS
65.59	7.49 58.10		The project implementation was long suspended owing to the political destabilization, but has been resumed to alleviate the traffic congestion.
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	v		
Topographic and geological			
		5.TECHNICAL TRANSFER	
12.EXPENDITURE		1) Participation of 2 trainees in JICA training program 2) OJT	3.PRINCIPAL SOURCE OF INFORMATION
Total	203,467 <b>(¥000)</b>		020
Contracted	193,010		

和名 コロンポ周辺道路網整備計画

ASO LKA/S 304/83

Compiled Mar. 1986 Revised Mar. 1994

			A CONTRACTOR OF THE PARTY OF TH		<del></del>	
I. OUTLIN	E OF STUDY	II. SUMMARY C	F STUDY RESUI	LTS	III. PRE	SENT STATUS OF STUDIED PROJECT
1.COUNTRY	Sri Lanka	1.SITE OR AREA Colombo metropolitan area	And the second seco		1.PRESENT STATUS	Completed or in Progress Promoting Completed
2.NAME OF STUDY						Partially Completed Delayed or Suspended
Project in Greater	_	2.PROJECT COST	Total Cost Local	_		O Implementing
		(US\$1,000) 1)	38,333 4	,526 33,807		O Processing Discontinued or Cancelled
		(US\$1≈270Yen) 2) 3)			(Description)	
3.SECTOR		3.CONTENTS OF MAJOR PROJECT(S)			1	loan agreement (10,359 million yen) (Ph-1)
Cemmunications & Broade	casting/Telecommunication	(1) Junction Network			Mar.1991 Const	ruction completed Loan Agreement (Ph-II)
4.REFERENCE NO.		Junction cable installation: 109. (The above includes optical fiber	cable installation for 11	1.7km.)		ulting Service Agreement
5.TYPE OF STUDY	F/S	PCM repeaters: 1,411			(FY 1991 Overse No additional	
6.COUNTERPART AGEN	CY	Manhole construction: 327 Duct installation: Installation 1		n 230km	(FY 1992 Overse	
SLTD			7km		Jun,1993 Detai	lled Design and start of construction due. mentation scheduled to be completed
		Secondary cable installation: 95 Cross-connecting cabinet establish	hment: 187 locations		(FY1993 Oversea	as Survey)
7.OBJECTIVES OF STUD	V	Number of lead-in cable pairs to a Manhole construction: 450	pcs	COOkm	Jan.1995 Imple	ementation scheduled to be completed.
<u> </u>	*Telecommunications Network	Duct installation: Installation le	ength 96km, ripe length s	JUKIN		
	n Greater Colombo" as an					
integral part of the 1	National Development Plan.		•			
8.DATE OF S/W	Dec.1982	Imp. Period: Aug.1986-Nov.198	8		1	
9.CONSULTANT(S)		4.FEASIBILITY AND Feasibility:	EIRR1) 29.70	-		
Nippon Telecommunicat	ion Consulting Co., Ltd.	ITS ASSUMPTIONS Yes	EIRR2) EIRR3)	FIRR2) FIRR3)		
		Conditions and Development Imp				
		Assumptions:				
		1) The project life is set at 20 years 2) The prices used in the financial an	alvais were converted to '	"the border		
10.STUDY TEAM		price" by multiplying by the standa project, the border prices happen t	o be the same as the dome	stic market		
No.of Members		prices. 3) Economic benefits consist of consum revenues calculated in the financia	er's surplus and the oper	ating	1	
	Nov.1983(11 months)	Development Impacts: (1) Improvement Metropolitan areas: (2) The greater ea	of telecommunication serv	ice in the		•
		is conducive to protection and rescue (3) Upgrading and diversification of q	of human lives:			
Total M/M	Japan Field	security: (4) Increased supply of info (6) Creation of employment opportunity	rmation; (5)Activation of	economic activities;	2.MAJOR RE	ASONS FOR PRESENT STATUS
46.30	11.70 34.60	1	•			This project is considered top priority by the Government of
11.ASSOCIATED AND/O	R	1			Sri Lanka.	
SUBCONTRACTED STU	JDY.					Colombo area is the center of political and economic activities
						and the outdated and insufficient telecommunications system jor bottleneck to overcome by the early 1980s.
		5.TECHNICAL TRANSFER			2 DEPARTMENT	SOUTH OF THEODINATION
12.EXPENDITURE Total	117, 636 <b>(¥</b> '000)	1) Joint preparation of the report; 2	) On the job training (SL	TD counterparts)	L	SOURCE OF INFORMATION
Contracted					024	
I Connacted	109,525	1			1	

ASO LKA/S 101/85

Compiled Mar.1988 Revised Mar.1992

I. OUTLINE	OFSTUDY	II. SUMMARY OF STUDY RESULTS	III. PRES	SENT STATUS OF STUDY RESULTS
1.COUNTRY  2.NAME OF STUDY  Master Plan for the D		1.SITE OR AREA Whole country	1.PRESENT STATUS	In Progress or In Use ☐ Delayed ☐ Discontinued
Telecommunication Net	work	2.PROJECT COST   Total Cost   Local Cost   Foreign Cost   (US\$1,000)   1)   29,307   (US\$=26,00Rp)   2)		of Sri Lanka applied the project (the Greater Colombo ns Improvement Project for yen credit, and OECF pledged ober 1990.
3.SECTOR  Communications 6 Broadca	sting/Telecommunication	3.CONTENTS OF MAJOR PROJECT(S)	Mar.1991 OECF Lo Dec.1991 Consult	oan Agreement (Phase II, 10,968 million yen)
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Posts and T Development.		To propose 100% of Digitalization of Trunk Network in the year 2000 and the network development for the following towns (1) Greater Colombo Area Telecommunications Improvement Project-2 (2) SLTD Organization Improvement project (3) Subscriber's line expansion project and Telecommunications network expansion project for rural towns/villages	Jul.1995 Impleme (FY 1993 Overseas No additional i	
7.OBJECTIVES OF STUDY To study the Master Pla development in the year	n for telecommunications 2000.			
8.DATE OF S/W	Aug.1984			
9.CONSULTANT(S)		4.CONDITIONS AND DEVELOPMENT IMPACTS		
Nippon Telecommunicatio	n Consulting Co., Ltd.	Conditions: To realize 100% of demand fulfillment and 100% of digitalization in the year 2000		
	,	Impacts: To decrease the difference in Quality and in Quality between Urban area and Rural area.		
10.STUDY TEAM				
No.of Members 1: Period Dec.1984-0	ct.1985(11 months)			
Total M/M	Japan Field		1	SONS FOR PRESENT STATUS
	28.22 21.80		(1) Effectiveness	s (2) High priority
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	x			
		S.TECHNICAL TRANSFER	2 DDINCTDAL C	OURCE OF INFORMATION
12.EXPENDITURE Total	136,112 (¥000)	(1) Trainee acceptance: 3 counterparts invited Japan, and (2) On the job training	©29	OUT OF HIS CHANGE
Contracted	128, 045	(SLID counterparts)	~~~	

Compiled Mar. 1990 Revised Mar. 1994

ASO LKA/A 304/85				Revised Mar.1994
I. OUTLINE	OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Rehabilitation of Tank	Sri Lanka : Irrigation Proje	ct	1.SITE OR AREA  Minipe scheme 6,800ha Nagadeepa scheme 2,400ha  2.PROJECT COST  Total Cost Local Cost Foreign Cost  (US\$1,000)  1) 16,830 9,370 7,460	1.PRESENT   Completed or in Progress   Promoting   STATUS   Completed   Delayed or Suspended   O Implementing   Discontinued or Cancelled
3.SECTOR Agriculture/ 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Lands and La 7.OBJECTIVES OF STUDY To stabilize agricultura incomes and living stand	1 products and incr	ease	US\$1~27.5Rs  3)  3.CONTENTS OF MAJOR PROJECT(S)  1.Canal System Minipe Nagadeepa Main Canal 55.3km 11.6km Branch Canal 6.3km D Canal 70.3km 20.0km F Canal 42.0km 42.9km Heen Ganga Intake 7.4m(H) X 74m(L)  2.Road System Rehabilitation of Road 18.8km 5.9km Bridge - 4 X 50m	(Description)  (FY 1992 Overseas Survey) The project has been implemented by the OECF loan and the Japanese grant aid.  Jul.1988 OECF L/A signed (1.850 mil. yen) The loan covers the rehabilitation of main canals (73.3km) and roads, branch canals (90km) and roads, etc. Construction scheduled to be completed in 1994.  Apr.1989 Grant Aid E/N signed (449 mil. yen) Minipe and Nagadeepa rural developement Phase I: Improvement of roads and digging of wells Completed  Jun.1989 Grant Aid E/N signed (709 mil. yen) Phase II: Improvement of roads and digging of wells Completed  (FY1993 Overseas Survey) Sep.1995 Scheduled to be completed.
8.DATE OF S/W	Jun.1984		Imp. Period:	
9.CONSULTANT(S)  Japan Engineering Consul Kyowa Engineering Consul	tants Co., Ltd.		4.FEASIBILITY AND Feasibility: EIRR1) 17.10 FIRR1) ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3)  Conditions and Development Impacts:  conditions: Agricultural products and farmers' income are expected to go up by (a) extending irrigation areas during the dry season.	
No.of Members 10 Period Jan.1985~Ma	r.1986(15 months	3)	(b) growth of yield per unit area (c) agricultural diversification  Development Impacts: Stabilizing agricultural products and upgrading the income by (a) rehabilitating the existing irrigations and the road system (b) ensuring proper operation and maintenance of the system	
Total M/M 50.29	- up un	Field 31.96		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY			S TECHNICAL TO ANGEOD	
12.EXPENDITURE Total Contracted	198,301 ( 184,918	¥'000)	5.TECHNICAL TRANSFER  1.OJT 2.Acceptance of Trainees (1 person)	3.PRINCIPAL SOURCE OF INFORMATION  ①230

ASO LKA/A 101/87

Compiled Mar.1990 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY  2.NAME OF STUDY  Integrated Rural Deve  Gampaha District	Sri Lanka lopment Project for	1.SITE OR AREA  Gampaha district(1,600sq.km, 1.4 million population)  2.PROJECT COST	1.PRESENT STATUS In Progress or In Use Delayed Discontinued		
		(US\$1,000)  1)  22,046  US\$1=28Rp.in 1987  2)  Total Cost Local Cost Foreign Cost 512 21,534  10,710	(Description)  In 1987, the Sri Lankan government selected the Model Project for Improvement of Agricultural Production which is one of the priority projects based on this master plan as the first priority project for implementation, and made request		
3.SECTOR Agriculture/General		3.CONTENTS OF MAJOR PROJECT(S)	to the Japanese government for grant aid to materialize it.  Basic design was completed in January 1989, E/N in June(grant aid 996 million Yen), contract with consultant in August and contract with contractor for Phase I in January 1990. First phase construction was completed in February		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Project Plan	M/P nning and Implementation	5 long term and 20 short term objectives were set. 3 priority projects were selected from the short term projects for early development. Short term projects: 1.Development of Agricultural Production 2.Development of Agricultural Infrastructure 3.Development of Rural Industries 4.Development of Human Resources 5.Development of Social Infrastructure Priority projects: 1.Model Project for Improvement of Agricultural Production	1991. The project was completed over 2 phases, with Phase II E/N concluded in June 1990 (grant aid 1.075 billion Yen), consultant contract for July 1990, and contractor contract in October 1990. Second phase construction was completed in October 1991.  As of the present, formal request has been made by the Sri Lankan government for project technical cooperation for the project.  (FY 1991 Overseas Survey) No additional information  (FY 1992 Overseas Survey)		
7.OBJECTIVES OF STUDY District-wide integrated	d rural development	2.Development of Human Resources 3.Development of Social Infrastructure The Cost 1) above pertains to the short-term plan, and the Cost 2) to the total of priority projects.	A formal request for a project-type technical cooperation was made, and a predevelopment study mission was dispatched in March 1993.  A request for a Grant Aid was made in February 8 1993, for construction and renovation of bridges and improvement of link roads (A total cost of Rp. 370.4 mil.).  (FY1993 Overseas Survey)  Project-type technical cooperation has not yet commenced.		
8.DATE OF S/W	Apr.1986	4.CONDITIONS AND DEVELOPMENT IMPACTS			
9.CONSULTANT(S) Chuo Kaihatsu Internation Sanyu Consultants Inc.	onal Corp.	Implementation of the priority projects is prerequisite for later implementation of all the short term projects which will nurture a condusive socio-economic and physical infrastructure to realize the latter.  Impacts of priority projects are as follows:  1.Increased production(minor export crops, general upland crops, paddy)  2.Increased farmers income  3.Social benefit (Improved diet, increased employment opportunities, upgrading of			
10.STUDY TEAM  No.of Members 13  Period Jul.1986-Ma		education level, improved health)			
Total M/M 54.27	Japan Field	ì	2.MAJOR REASONS FOR PRESENT STATUS  Project implementation is progressing smoothly. This is due to the fact that the understanding of affected residents was		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Y		obtained during the master study phase, and that the project places emphasis on the rehabilitation of existing structures.		
12.EXPENDITURE		- 5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION		
Total Contracted	168,183 <b>(¥'00</b> ) 146,293	1.Training 8 (2 persons in 1986 under the master plan study, and 4 persons in 1990 and 2 persons in 1991 under detailed design and construction supervision)	①23		

ASO LKA/A 102/89

Compiled Mar. 1991 Revised Mar. 1994

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY  2.NAME OF STUDY  Sand Drift in the Sou	Sri Lanka theastern Coast	1.SITE OR AREA  Kirinda Fishery Harbour Southeastern Coast Fishery population 1,408/Fishing boats 128/Yearly haul 385t	1.PRESENT STATUS	In Progress or In Use ☐ Delayed ☐ Discontinued	
		2.PROJECT COST   Total Cost   Local Cost   Foreign Cost	(Description)  The following sturn the Kirinda Fisher.	dy on the basic design for the prject for rehabilitation of ies Harbour.	
3.SECTOR Fisheries/General		3.CONTENTS OF MAJOR PROJECT(S)	a. Study of pop	ocial Study in the Kirinda area.  Sulation (total population, the number of sirthrate, mortality rate, etc.) and	
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Fisheries as Executing Agency:Ceylon Corporation 7.OBJECTIVES OF STUDY Countermeasure for Silt.	nd Aquatic Resources Fishery Harbours	Extension of Main Breakwater 200m Improvement of Existing Main Breakwater 100m Construction of Sub-breakwater 230m Construction of Jetty 200m	industries ( development   b. Investigation project is exity To collect inficirculation, ff Economic analy, in consideration facilities in leading title and suitable layou executing this  (FY1991 Overseas S) No additional info	railroad, road, allied industries, plan, etc.).  on of regional development in case this executed.  formation of fish products, fishery fish consumption, fishing boats, etc. sis and estimation of investment effect on of the above-mentioned results. on of effective utilization of land kirinda Fisheries Harbour, to plan a ut and countermeasure for siltation for project.  Survey)  ormation.	
			(FY1993 Overseas S The project is now	curvey) of in progress according to the masterplan.	
8.DATE OF S/W	Oct.1987				
9.CONSULTANT(S) Nippon Tetrapod Co., Ltd	d.	With conducting natural condition survey in the NE 6 SW monsoon season and clarifying numerical simulation for the sand drift, the following proposals were planned.  (1) By constructing a Groyne at the Kirinda point, the sand drift of the SW monsoon season will be shifted onto an offshore course.  (2) By extension of main breakwater, the coastal sand drift will be prevented and the tranquility within the harbour			
10.STUDY TEAM  No.of Members 6  Period Mar.1988-De	ec.1989(16.5 months)	will be improved for mooring.  (3) by establishing another new sub-breakwater in the morth of the existing sub-breakwater, siltation will b prevented at harbour mouth.			
Total M/M	Japan Field		2MAJOR REAS	ONS FOR PRESENT STATUS	
29.73	16.81 12.92		·		
11.ASSOCIATED AND/OR SUBCONTRACTED STUD Sounding, Topographical sur Meteorology and Hydrographi	Y vey/Observation of c Conditions/Hydraulic				
nodel test  12 EXPENDITURE  Total  Contracted	224,515 <b>(¥'000)</b> 203,563	5.TECHNICAL TRANSFER  -Training and study in Japan(1 person) -Guidance about using survey materials and a new method of investigation in Sri Lanka	3.PRINCIPAL SO ①2③	DURCE OF INFORMATION	

和名南東部沿岸漂砂調査

(M/P,Basic Study,Other)

ASO LKA/S 202B/89

Compiled Mar.1991 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY	Sri Lanka	1.SITE OR AREA	1.PRESENT Completed or in Progress Promoting
2.NAME OF STUDY  Development of the Po	rt of Colombo	2.PROJECT COST M/P 1) 478,534 Local Foreign (US\$1,000) 2) 409,376 Cost Cost	STATUS
		F/S 1) 257,849 42,117 215,732 2)	(Description)
3.SECTOR		3)	Oct. 1989 OECF loan agreement on Java Container Terminal
Transportation/Port		3.CONTENTS OF MAJOR PROJECT(S)	No.3 (6,200 million yen) Mar. 1990 OECF loan agreement (Phase I 6,329 million yen) Oct. 1991 Construction work of JCT No.3 was commenced
4.REFERENCE NO.		<pre><m p=""> Plan A: Cost 1) Plan B: Cost2) 1)New North Pier</m></pre>	Mar. 1991 OECF loan agreement (Phase II 10,968 million yen) Mar. 1992 OECF loan agreement (Phase III 21,055 million yen)
5.TYPE OF STUDY	M/P+F/S	Berth No.3 -11m x 210m - Berth No.4 -7.5m x 130m -	Aug. 1993 OECF loan agreement (Phase IV 7.728 million yen)
6.COUNTERPART AGENCY		2)Port container terminal o - 3)New Queen Elizabeth Container Terminal(NQECT)	(FY 1992 Overseas Survey) 1) JCT No.4 and communications system: under construction
Sri Lanka Ports Authorit	-Y	Berth No.1 -14 x 350m -14 x 340m  Berth No.2 -14 x 350m -14 x 330m  Berth No.3 -12 x 300m -12 x 330m  4)Extension of SW breakwater (550m) 0 -  5)New SW breakwater (510m) -	2) Rehabilitation of Queen Elizabeth Quay: completed 3) Pipe laying and dredging: scheduled to be implemented 4) New North Pier: in progress
7.OBJECTIVES OF STUDY		6)Re-alignment of main entrance channel o o	(FY1993 Overseas Survey) Dec.1994 JCT No.3 is scheduled to be completed
F/S, M/P, & ST/P		7)Computer communication 0 0 8)Port highway system 0 0 <f s=""> 1)Jaye Container Berth (JCT)</f>	Dec.1995 JCT No.4 is scheduled to be completed
		Berth No.3 (-13.5m x 330m, planned capacity 300,000TEUs, stacking yards 6,300TEUs)	
		Berth No.4 (-13.5m x 360m, planned capacity 300,000TEUs, stacking yards 6,150TEUs, feeder berth -9.0m x 170m)	
		Gantry cranes(Post Panamax): 2 units, High speed transfer cranes: 6units 2)New North Pier(NNP)	
8.DATE OF S/W	Mar.1988	Berth No.1: -7.5m x 130m, Warehouse: 40m x 160m Berth No.2: -11.0m x 210m, Warehouse: 40m x 160m	
9.CONSULTANT(S)		3)Pipe line for the new oil terminal: 700m 4)Rehabilitation of Queen Elizabeth Quay: Berths No.4 and No. 5, etc.	
	evelopment Institute of Ja	Imp. Period: .19891995	
Japan Port Consultants (	Co., Ltd.		
		4.FEASIBILITY AND Feasibility: EIRR1) 21.40 FIRR1) 8.70 ITS ASSUMPTIONS Yes EIRR2) FIRR2) EIRR3) FIRR3)	
10.STUDY TEAM		Conditions and Development Impacts:	
		Planning Conditions:	
No.of Members 10		<ol> <li>Sri lanka's political stability improves to secure project implementation</li> </ol>	
Period Nov.1988-No	·	2) Relative importance of the Port in the international container shipping network will not change significantly	
		3) Further development beyond the plan should be coordinated with the development of the Port of Galle	
Total M/M	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS
52.66	28.19 24.47	Development Impacts: 1) Increased handling of centainer cargo transshipments 2) Reduction of transport costs	The project was commenced on good timing for adapting to the change of
11.ASSOCIATED AND/OR		3) Increased foreign exchange earnings 4) Activation of international trade in Sri Lanka and neighboring	containerization in the world
SUBCONTRACTED STUDY	IJ	countries 5) Promotion of export processing industries around the Port of Colombo	
Boring, Topographic Survey Bathymetric Survey		6) Improved reliability of the port of Colombo	· · · · · · · · · · · · · · · · · · ·
12.EXPENDITURE		5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
Total	175,721 <b>(¥'000</b> )	On-the-Job training JICA counterpart training	020
Contracted	176,480		

ASO LKA/A 201B/89

Compiled Mar.1991 Revised Mar.1993

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY Sri Lanka 2.NAME OF STUDY	1.SITE OR AREA  Amban Ganga and Mahaweli Gang Basins and NCRB area <m p=""> Basin of Amban Ganga and Mahaweli Gang<f s=""></f></m>	1.PRESENT Completed or in Progress Promoting  STATUS Completed  Partially Completed Delayed or Suspended
Extension of the Moragahakanda Agricultural Development Project	2.PROJECT COST M/P 1) 1,352,000 Local Foreign (US\$1,000) US\$1 = 15,0Rs F/S 1) 310,000 105,500 204,500	○ Implementing ○ Processing □ Discontinued or Cancelled
3.SECTOR Agriculture/General	2) 3) 3.CONTENTS OF MAJOR PROJECT(S)	(Description) The Government of Sri Lanka may request the project on loan basis to Japanese Government.
4.REFERENCE NO.  5.TYPE OF STUDY M/P+F/S  6.COUNTERPART AGENCY  Mahaweli Development Board  7.OBJECTIVES OF STUDY  The most effective use of available water in the Mahaweli River System and priority projects <m p=""> Updating of the previous Feasibility Study made in 1979<f s=""></f></m>	CM/P>Stage-wise agricultural land development is recommended in NCRB area.  Package 1 Joint Facilities Kalu ganga dam NCP canal  New Irrigation Area 23,900 ha Cashew Farm 10,000 ha Rehabilitation 25,500 ha Package 2 Joint Facilities NCP canal Minipe LB canal New Irrigation Area 26,600 ha Rehabilitation 38,600 ha Package 3 Joint Facilities NCP canal Minneriya Pump Station New Irrigation Area 27,000 ha Cashew Farm 10,000 ha <pre></pre>	(FY1992 Overseas Survey) Oct.1. 1992 Fund proposal to Ministry of Finance
8.DATE OF S/W Oct.1987  9.CONSULTANT(S) Nippon Koei Co., Ltd.	Downstream land development 13,900ha - Drainage canal 90km	
Japan Engineering Consultants Co., Ltd.	Imp. Period:  4.FEASIBILITY AND Feasibility: EIRR1) 9.30 FIRR1)  FIS ASSUMPTIONS Yes EIRR2) 9.20 FIRR2)  EIRR3) 3.00 FIRR3)	
No.of Members 9 Period Jan.1988-May.1988(5 months)	Conditions and Development Impacts: <pre> <m p="">-continued Agricultural Development for Rice Self-Sufficiency     constant development of agriculture, since the population of Sri Lanka     is expected to increase from 16.4 mill in 1987 to about 24mill in 2020.     -Secondary Benefits: favorable socio-economic impacts, Foreign exchange     saving, increased employments, and improvement of living standard, etc.     1)Expansion of production; Paddy: 1, 033,000 ton, Onion: 38,000 ton, </m></pre>	
Total M/M Japan Field 21.33 6.45 14.89  11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	2)Chilli: 25,000 ton, Maize: 17,000 ton, Cashew: 20,000 ton 3)Increase in unit yields 4)Paddy: 2.8-1.6 ton/ha, Onion: 5.0 ton/ha, Chilli: 0.4 ton/ha, Sugar cane: 46 ton/ha 5)Population in the	2.MAJOR REASONS FOR PRESENT STATUS  1. Priority decreased: New government in 1989 placed Janasabia-Plan as significant task in policy. The content of plan: To give Rp 2,200 per month to poverty.  2. Since 1989 structual adjustment proposed by World Bank and IMF has been implemented.
12.EXPENDITURE  Total 220, 970 (¥'0000  Contracted 213, 902	5.TECHNICAL TRANSFER  Transfer technology to counterpart in the course of the Study.	3.PRINCIPAL SOURCE OF INFORMATION  ①23

ASO LKA/S 102/91

Compiled Mar.1993 Revised

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULT	
1.COUNTRY	Sri Lanka	1.SITE OR AREA	1.PRESENT	■ In Progress or In Use
2.NAME OF STUDY		Port of Galle	STATUS	□ Delayed
Development of the P	ort of Galle		1	☐ Discontinued
•		2.PROJECT COST	(Description)	
		(US\$1,000) Total Cost Local Cost Foreign Cost	<u> </u>	
		(US\$1,000) 1) 592,000 (US\$1=Rs41) 2)	completin of this	the rugent plan (breakwater 350m)a was formulated. After the study, the implementation of that was requested from Sri
3.SECTOR		3.CONTENTS OF MAJOR PROJECT(S)		ters are constructed, the SIPA says that a foreign shipping
Transportation/Port		Master Plan:	line will call at	t the Port of Galle.
4.REFERENCE NO.		(1) Southwest Breakwater: 1,500m (protection from SW Monsoon)		
5.TYPE OF STUDY	M/P	(2) Container Terminal: 3 berths (-14m, 1,090m), container yard (2,200 slots)  Cargo handling machinery (containner cranes, transtainers,		•
6.COUNTERPART AGENC	Y	tractor trailers), other related facilities and buildings		
Sri Lanka Ports Author	ity	(3) General/Bulk Cargo: 2 berths (-14m x 270m, and -12m x 240m), storage sheds, handling machinery (unloaders, belt conveyors, forklifts)	} 	
		(4) Bunker Oil Berth: 1 Dolphin-type berth (-7.5m x 120m)		
7.OBJECTIVES OF STUDY	7			•
B	a target year of 1997			
2. Technical transfer	to the counterparts			
8.DATE OF S/W	Apr.1990		4	
9.CONSULTANT(S)		4.CONDITIONS AND DEVELOPMENT IMPACTS		
	ے۔ Development Institute of Ja	Development impacts: 1) It will enable the direct access to foreign markets from the southern region	·	
Japan Port Consultants	and the second s	(e.g., Galle, Matara and Hambantota), contributing to the restructuring and rational functin arrangement of Sri Lanka Ports.		
		2) It will relieve the crowdedness of the Port of Colombo and meet future demands.  3) It will decrease the traffic load of the National Road A2 (from Colombo to		
		Hambantota via Galle) and the coastal railroad, meeting the increase of traffic demands and motorization.		
10.STUDY TEAM		4) It will develop benefits to contaniners with the improvement of service standards and cost conditions for the shippers and consigness in the hinterland of Galle.		
	_	5) The functions of international shiipping base of the port of Galle will promote the regional economy.		
	10	6) It will be conductive to the development of Kegalla export processing district in the Galle region. The port development will increase the number and production of		
Period Sep.1990-N	Nov.1991(13 months)	factories in the Kegalla region.	<b>]</b> ·	
		7) It will build a development core in the southern region, activating the economy through industrialization. Especially the development of cement factories in	2 MAIOD DEA	SONS FOR PRESENT STATUS
Total M/M	Japan Field	behind the port and milling factories close to the port will proceed in the future.	3	SOND I ON TREASENT DIATEOU
68.72	39.65 29.07	8) The agriculture in the southern region will be favorably influenced from the cost reduction of inland transportation compared with the case of using the Port of		
11.ASSOCIATED AND/OR	e e	Colombo.  9) The port construction and management along with regional industrial development		
SUBCONTRACTED STUL	DY	will increase employments and income level in the region.		
Bathymetric Survey Topographic Survey				
Boring		5.TECHNICAL TRANSFER	3.PRINCIPAL S	OURCE OF INFORMATION
12.EXPENDITURE Total	232, 251 (¥'000)	Through discussion with counterparts, technical transfer was conducted by	02	
Contracted	226, 013	transmitting the method of development planning, calmness analysis and so on.		

和名 ゴール港整備計画

ASO LKA/A 305/92

Compiled Mar. 1994 Revised

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY 2.NAME OF STUDY Walawe Irrigation Upg Project	Sri Lanka rading and Extension	1.SITE OR AREA  Left bank of the Walawe river 180km southeast Colombo  2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 66,045 41,273 24,773	Processing Discontinued or Cancelled
3.SECTOR  Agriculture/General  4.REFERENCE NO.  5.TYPE OF STUDY  6.COUNTERPART AGENCY  Mahaveli Authority of  7.OBJECTIVES OF STUDY  Increasing agricultural rural people, and employ the Project and through irrigation facilities and infrastructure	Sri Lanka  production, incomes yment opportunities i grading and extention	2) 12,841 7,841 5,000 3) 45,727 18,023 27,705  3.CONTENTS OF MAJOR PROJECT(S)  [1] Upgrading and rehabilitation of existing irrigation facilities in the MEA are of 2,900 ha, including a total of 190 km of the left bank maincanal and sobordinate canals and 2,200 related structures:  [2] Construction of irrigation and drainage facilities in the Edension and MEA areas of 6,380 ha including 25 km of the left bank rasis canal 313 km of sobordinate irrigation canals, 47 tanks 254 km of drainage canals, about 1,000 structures, and 322 km of canal inspection roads:  [3] Land reclaimation for 5,240 ha of paddy and upland fields and construction of on-farm works for 6,380 ha;  [4] Provision of information including preparation of 1,200 ha of land for 22 villages, 28 schools, 12 bealth 4 medical care facilities, 22 drinking water supply system, 140km of roads. 4 electricity apply systems, 4 telecommunication facilities, 22 administration offices, 6 agro-extension facilities and a development center.	
	Nov.1990	Imp. Period: Oct.1993-Mar.1995 Jan.1995-Dec.1997 Jan.1997-Dec.1999	
9.CONSULTANT(S) Nippon Koei Co., Ltd. Naigai Engineering Co.,	Ltd.	4.FEASIBILITY AND Feasibility: EIRR1) 17.30 FRR1)  TIS ASSUMPTIONS  Yes/No  EIRR2) 14.20 FIRR2)  EIRR3) 13.60 FIRR3)  Conditions and Development Impacts:  1) Based on the estimated banefits and costs 2) Benefit reduction of 10%, cost rice of 10% 3) Benefit reduction of 10%, cost rice of 15%	
10.STUDY TEAM  No.of Members 8  Period Jun.1992-No.	ov.1992(18 months		i.
Total M/M 29.31	P	l <b>d</b> 81	2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Natural Environment (Vegeta Environment) Surveys.	Y		
12.EXPENDITURE Total Contracted	183,493 <b>(</b> 1 90,005	Survey/Investigation and planning method, and its evaluation	3.PRINCIPAL SOURCE OF INFORMATION  ①②

ASE THA/S 301/76

Compiled Mar.1988 Revised Mar.1994

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
1.COUNTRY  2.NAME OF STUDY  Project of Strengther  Replacement of Steel  Railway		1.SITE OR AREA  Southern line 1,159 km 110 bridges Northern line 751 km 22 bridges Northeastern line 1,205 km 45 bridges  2.PROJECT COST Total Cost Local Cost Foreign Cost  (US\$1,000) 1) 16,583	1.PRESENT Completed or in Progress Promoting  Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Railway  4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE State Railway of Thaila  7.OBJECTIVES OF STUDY Investigation, from the work execution, of the steel bridges requiring replacement	e aspects of design and existing 214 spans of	(US\$1=20Bahts)  3)  3.CONTENTS OF MAJOR PROJECT(S)  The number of steel bridge on the whole railway in Tailand become 1,397 (2,853 span) at the end of 1976. 169 of them (214 span) are recommended to need improvement by the study of VKRAS (Enqland). After this study, government of Thailand proposed gov. of Japan to cooperate a now detailed study of strengthening and replacement of them.  So the purpose of this study are following:  1) Evaluating strength of 214 span  2) Suggesting a standard design and method of improvement / strengthening / replacement.  3) Estimating a cost of this project.  Proposals:  Of the 214 spans:  197 spans are to be repaired and strengthened.  17 spans are to be replaced with the construction of new bridges	(Description)  The project has been under implementation by the government funds since 1979.  Based on the recommendations of the study, 104 bridges have been strengthened so far. 17 of them were replaced by steel bridges. Furthermore, additional 37 bridges have been under various stages of implementation by the national budgets during 1987 and 1991. The remaining 25 are expected to be built after 1992.  (FY 1991 Overseas Survey)  The strengthening works on the eastern line is not concluded yet, because the traffic density remains low. Construction of other parts will be finished in 1993.  (FY1993 Overseas Survey)  The project except bridges on eastern line is scheduled to be completed in 1996. SRT budgeted at 300 million bahts. To increase loading capacity, the old steel bridges needs strong thening. Otherwise, speed restiction has to be introduced.
8.DATE OF S/W	Oct.1975	Imp. Period:  4 FEASIBILITY AND   Feasibility:   EIRR1)   FIRR1)	
9.CONSULTANT(S)  Japan Railway Technical	Service	4.FEASIBILITY AND Yes/No EIRR1) FIRR1) Yes/No EIRR2) FIRR2) EIRR3)  Conditions and Development Impacts: It was considered beneficial for SRT to receive a few advisors for its technical and financial needs for the initial one or two years.	
10.STUDY TEAM  No.of Members 1  Period Jan.1976-N	7 ov.1976(10 months)	*Above implementation period is 5 year  [Development Impacts]  The nation's railway capacity and it operation would be improved so much by implementation of this bridge project.	
Total M/M	Japan Fiel	and the control of th	2.MAJOR REASONS FOR PRESENT STATUS
87.27 11.ASSOCIATED AND/OR SUBCONTRACTED STUD		5.TECHNICAL TRANSFER	
12 EXPENDITURE Total Contracted	106,843 <b>(¥°0</b> 0	Investigations were conducted with the cooperation of counterparts.	3.PRINCIPAL SOURCE OF INFORMATION  ©2