(M/P)

AS	SE SGP/S 101/7	78	Revised	Mar.2008
	COUNTRY	Singapore		
	NAME OF STUDY	Dredging Project of the Strait of Singapore		
3. 5.	SECTOR	Transportation / Port 4. TYPE OF STUDY M/P Port and Harbour Bureau, Ministry of Transport		
	COUNTERPART AGEN TIME OF DEVELOPME	NCYATTHE		
	PRESENT COUNTERPA	ART AGENCY		
		Proposal on dredging method and cost estimates		
6.	OBJECTIVES OF THE STUDY			
		The Overseas Coastal Area Development Institute		
7.	CONSULTANT(S)			
8.	STUDY PERIOD	Aug.1978 ~ Mar.1979 7month(s) ~		
		Strait of Singapore		
9.	SITE OR AREA			
Plan Bas (1)I (2)I	ted upon the bathymetric Dredging Method:Grab I Dredging Volume:484,00 Monthly Production: 38,0	low areas(4 sites) in Singapore Strait. c surveys,seisemic surveys,Boring,and Inspection by divers, the followings are proposed.		

**ASE SGP/S 101/78** M/P In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** 1992 Dredging works were completed.

**(F/S)** 

			Complied Mar. 19	<del>)</del> U
AS	SE SGP/S 30	01/86	Revised Mar.20	38
1.	COUNTRY	Singapore		
2.	NAME OF STUDY	Plant Renovation Project of the Sentosa-1 Earth Station		
	SECTOR	Communications & Broadcasti / Telecommunication 4. TYPE OF STUDY F/S		
5.	COUNTERPART AGEN TIME OF DEVELOPME PRESENT COUNTERPA	ENT STUDY		
6.	OBJECTIVES OF THE STUDY	To study the plant renovation of the SENTOSA-1 E/S		
7.	CONSULTANT(S)	Japan Telecom. Eng. and Consulting Service		
8.	STUDY PERIOD	Mar.1986 ~ Jul.1986 4month(s) ~		
9.	SITE OR AREA	Sentosa Island of Singapore		
10.	MAJOR PROPOSED PR	OJECT(S)		
1) 5 A 2) 1 A	Antenna servo drive syste O years life extension Antenna mechanical part Antenna servo drive syste	& structure - partial repair em - to replace some devices & structure - total repair		

ASE SGP/S 301/86 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
D ::		

Description:

Reasons of Stoppage:

The project was discontinued.

1) The antenna was the old type (york tower type) which is less flexible for expansion.

2) INTELSAT standards of the antenna were changed when the study was completed.

(F/S)

Compiled Mar.1990 **ASE** SGP/S 302/88 Revised Mar.2008 COUNTRY Singapore Singapore Urban Transport Improvement 2. NAME OF STUDY 3. SECTOR / Urban Transportation TYPE OF STUDY F/S Transportation 5. Public Works Department, Ministry of National Development COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Evaluation of technical and operational feasibility of introducing a new transport system OBJECTIVES OF THE STUDY **ALMEC Corporation** 7. CONSULTANT(S) Pacific Consultants International Aug.1987 Nov.1988 15month(s) 8. STUDY PERIOD 5 routes 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) The study prepared plans to improve the feeder transport systems by introducing a new transit system for five selected areas. A detailed analysis was made of the Ang Mo Kio New Town System. Major project components: 1) Route and alignment plan, including location of stations 2) Infrastructure plan (structures, stations, yards) and preliminary design 3) Selection of a transit system and an operation plan

都市交通改善計画

ASE SGP/S 302/88 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed Implementing	Delayed or Suspended
	Processing	Discontinued or Cancelled

### Description:

### (1)Sentosa Line

The Sentosa Development Corporation and the Public Works Department show their interest on this project. The preparation is on-going to call for the tender for a part of the Orchard-Sentosa Route.

### (2)Simpang New Town System

HDB is now planning the comprehensive new town development project.

(FY 1998 Overseas Survey)

The development of New Town is not completed yet.

### (3)Ang Mo Kio New Town-Marine Parade Route

It has been officially included into the transport network plan.

Subsequent Study:

Evaluation study has conducted. (own fund)

(FY 1998 Overseas Survey)

Alternative route is being considered.

#### Background:

### (FY 1990 Domestic Survey)

Feb.1990 The seminar was held, based on the study results. 300 people participated and their understanding over the introduction of new traffic system was promoted. (FY 1991 Overseas Survey)

The concept of LRT was generally accepted and integrated into the Concept Plan of Urban Transport.

#### (FY 1993 Overseas Survey)

There is no plan for the immediate implementation of the proposed projects. However, this study has promoted the better understanding on the LRT role played in the transportation network system in Singapore. LRT is integrated into the Long-Term Transportation Plan for 21st century.

#### (FY 1994 Domestic Survey)

As MRT (Mass Rapid Transit), which commenced its operation in 1989, has been extensively used, further improvement of feeder services become more important. In 1993 JICA was requested the implementation of F/S on the new transport system but it turned it down.

### (FY 1995 Domestic Survey)(FY 1995 Overseas Survey)

From January to May, 1995, an international tender was conducted for the introduction of a new transport system in Cho chukan and Buena Vista. At present, the authorities concerned are negotiating with some successful bidders.

In September 1995 the Government established the Land Transport Authority to handle land transport issues.

### (FY 1996 Domestic Survey)

An American firm made a successful bid on the Bukit Panjang district (Choa Chu Kang new town included) and the negotiation to conclude a contract is now in progress. The project in the Buena Vista district was cancelled due to its low feasibility.

### Effect:

### (FY 1997 Domestic Survey)

- Improvement of accessibility for residents in Choa Chu Kang new town
- Increase of MRT users
- Improvement of environment by reduction of traffic

### Impacts for Surrounding Area:

### (FY 1997 Domestic Survey)

- Betterment of city view
- Noise for residents
- Reduction of air pollution, noise and traffic accident

(F/S)

Compiled Mar.1992

**ASE** SGP/S 303/90 Revised Mar.2008 COUNTRY Singapore Selected Expressways 2. NAME OF STUDY 3. SECTOR Transportation / Road TYPE OF STUDY F/S 5. Public Works Department (PWD), Ministry of National Development (MND) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Analysis of feasibility on the selected three expressways; PIE, KLE, and PYE. OBJECTIVES OF THE STUDY Oriental Consultants Co., LTD. 7. CONSULTANT(S) Mar.1990 Mar.1991 12month(s) 8. STUDY PERIOD Central and northeastern parts of Singapore 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) 1)Improvement of PIE (Pan Island Expressway, 8.65km) 2)New construction of KLE (Kallang Expressway 2.8km) 3)New construction of PYE (Paya Lebar Expressway 9.2km)

ASE SGP/S 303/90 F/S

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Development of the expressway system is considered urgent to maintain high standards of social infrastructure services in Singapore.

Implementation Schedule:

PIE:PIE/Woodsville 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 2005
PYE:PYE/PIE IC - PYE/TPE IC Completion in 2006

Estimated Project Cost (million S\$)

	PIE	KLE	PYE
Construction Cost	84.4	400	800
Land Acquisition and			
Compensation Costs	0.0	160	50
Contingencies (10%)	8.4	56	85
Total	92.8	616	935

(1)PIE

Subsequent Studies

1990~93 D/D was conducted in the part of the route.

Finance:

96.3 millions S\$ (financed by the Government of Singapore)

Construction:

Apr.1992 commenced

Jul.1994 completed (total cost 79 million S\$)

It is contributing to realize the policy for increase of the transportation demand.

(2)KLE

Subsequent Studies

Finance:

332.8 million S\$ (Kallang Expressway Project financed by the Government of Singapore)

Construction

(FY 1998 Overseas Survey)(FY 1999 Overseas Survey)

2001~2005

Tender is expected in mid-2000.

(3)PYE

Finance:

(FY 1999 Overseas Survey)

Jul.1996 approved 1.27bil.S\$ (Paya Lebar Expressway Project financed by the Government of Singapore)

The target year for construction is set for 2009 owing to land borrowing. The change might be seen according to the economy of Singapore in the future.

Maintenance and Operation:

L.T.A.(Land Transport Authority)

**(F/S)** 

AS	SE THA/S 3	801/76				Revised	Mar.2008
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Project of Stren	gthening and/ or Replacement of Steel Bridges on the	ne State F	Railway		
3.	SECTOR	Transportation	/ Railway	4.	TYPE OF STUDY F/S		
5.	5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		State Railway of Thailand				
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY		om the aspects of design and work execution, of the advor replacement	existing	214 spans of steel bridges	requiring	
7.	CONSULTANT(S)	Japan Railway	Technical Service				
8.	STUDY PERIOD	Jan.1976 ~ Nov.1976 10month(s) ~					
9.	SITE OR AREA	Southern line 1,159 km 110 bridges  Northern line 751 km 22 bridges  Northeastern line 1,205 km 45 bridges  Eastern line 255 km 37 bridges					
The need stude So 1) 1 2) 5	ed improvement by the st dy of strengthening and r the purpose of this study Evaluating strength of 21	on the whole raily udy of VKRAS(Exeplacement of the y are following; 4 span sign and method of the span sign and method sign and metho	way in Tailand become 1,397 (2,853 span) at the en- England). After this study, government of Thailand em.  of improvement / strengthening / replacement.				
Of 19	oposals: the 214 spans: 7 spans are to be repaired spans are to be replaced						

ASE THA/S 301/76 F/S

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

The expert was dispatched by JICA.

# (1) Arterial Line (the Eastern Line Not Included)

Subsequent Studies:

Conducted by the Civil Engineering Department of the State Railway of Thailand

Finance

Own Fund of the State Railway of Thailand and a loan from the Thai banks

Total Investment Cost: 350 mil.Bahts

Construction:

FY1978~FY2006

From 1979, based on the strdy results, the renovation of 104 bridges was completed and 17 of them were replaced by concrete bridges. Furthermore, the renovation of additional 37 bridges is either in progress or about to be commenced with the national budgets from 1987 to 1991. Except for the bridges in the closed lines, the remaining 25 bridges will be renovated after 1992.

(FY 1995 Overseas Survey)

The reinformcement of 214-span-bridge was designed with DL-16 standard weight.

Most of them have been reinforced or replaced already.

### (FY 1997 Overseas Survey)

As of the end of 1997, 135 bridges have been completed out of 169 bridges. Remaining 34 bridges will be completed gradually by 2006 as shown below.

Year	Number of Bridge
1999	3
2000	7
2001	6
2002~2006	18

#### (2) Eastern Line

### (FY 1991 Overseas Survey)

Because the volume of traffic in this line has kept low, it has not been concluded whether the renovation work on the bridges will be implemented.

### (FY 1994 Domestic Survey)

A new prestressed concrete bridge was constructed up to the khlong Sip Kao station. This construction aimed to upgrade the track standard to correspond to the new line between Khlong Sip Kao and Kaeng Khoi stations which is to be constructed in near futher. The upgrading of the remaining steel bridges in this line shall be suject to the result of the Eastern Railway Corridor Study conducted by TDRI. A part of the reinforcement project of the remaining steel bridges in the branch lines will be revised due to the budget constraint. The construction works may be integrated into the track rebabilitation plan if necessary.

**(F/S)** 

AS			ed Mar.2008
1.	COUNTRY	Thailand Irrigated Agricultural Development Project in the West Bank Tract of the Greater Chao Phraya	
2.	NAME OF STUDY	milganed Agricultural Development Project in the west Bank Tract of the Greater Chao Phraya	
	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME		
	PRESENT COUNTERPA	ART AGENCY	
6.	OBJECTIVES OF THE STUDY	To study the agricultural developmen of irrigation area in the west bank tract of the Greater Chap Phraya	
7.	CONSULTANT(S)	Sanyu Consultants Inc.	
8.	STUDY PERIOD	Oct.1976 ~ Jul.1977 9month(s)	
10. Irri Pur Ma Ma Ma Vil	np station for irrigation a in irrigation canal/second	Circle Embankment : 114.5 km and drainage :3 station dary, tertiary canal :36km/432km ary, tertiary canal:30km/494km km/404km ces	

ASE THA/A 301/77 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

### Subsequent Studies:

Jun.14.1979 L/A (Irrigated Agricultural Development Project in Chao Phraya (E/S), 150 mil.Yen) Jun.1979~Feb.1982 D/D (Sanyu Consultants Inc.)

#### Finance

Jul.16.1982 9th OECF L/A (Chao Phraya Irrigation Plan, 2,650 mil.Yen)

\*Contents of OECF loan

construction equipment 2.02 billion yen consultation service 390 million yen contingency 240 million yen

### \*Contents of the Project

- -Circle embankment
- -Pump stations
- -Irrigation and drainage canals
- -On-farm development

(tertiary irrigation and drainage canals and farm roads)

-Rehabilitation and improvement of rural roads and bridges.

### Construction:

Jun.1982 started

Jul.1988 Yen loan expired. Construction continued by ALRO.

1990 completed

**(D/D)** 

AS			Re	evised Mar.2008
1.	COUNTRY	Thailand The Land Control of the Con		
2.	NAME OF STUDY	Bangkok Telephone Network Project : Junction Line	S	
3	SECTOR	Communications & Broadcasti / Telecommunication	4. TYPE OF STUDY D/D	
<i>5</i> .	SECTOR	Telephone Organization of Thailand		
	COUNTERPART AGEN TIME OF DEVELOPME	Y AT THE		
	PRESENT COUNTERP	RT AGENCY		
		D/D of junction cable network and five local cable n	etworks	
6.	OBJECTIVES OF THE STUDY			
7.	CONSULTANT(S)	Nippon Telecommunication Consulting Co., Ltd.		
8.	STUDY PERIOD	May.1977 ~ Feb.1978 9month(s)		
		Bangkok Metropolitan Area		
9.	SITE OR AREA			
	MAJOR PROPOSED PR			
	ntents Sca enstruction of Junction cal			
COI	istruction of Junction car	e 250,000 Pair-kiii		

ASE THA/S 401/77 D/D

	Completed or In Progress	Promoting
DDDGENE GEARNIG	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

Finance:

Jul.1978 L/A (EGAT Communication System Expansion Project, 1,464 mil.Yen)

- \*Components of the project:
- 1.Exchange of UHF ultrasonic radio and extension of route.
- 2.Installation of PLC.
- 3.Exchange/installation of VHF communication device.
- 4.Installation of LFL.
- 5.Installation of data transmission device. (loan for equipments for projects above)

Project has been completed.

\*The Economic Development Project 1977~84 of TOT.

(F/S)Compiled Mar.1986 **ASE** THA/S 302/78 Revised Mar.2008 1. COUNTRY Thailand Pattaya Tourism Development 2. NAME OF STUDY 3. SECTOR Tourism / (Tourism in) General 4. TYPE OF STUDY F/S 5. Dept. of Tourism COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Establishment plan of infrastructure for tourism OBJECTIVES OF THE 6. STUDY Pacific Consultants International 7. CONSULTANT(S) TETRA Co., Ltd. Dec.1976 Dec.1977 12month(s) 8. STUDY PERIOD Pattaya, Ko lan Island 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) -Infrastructure -Water supply and sewerage -Water drainage system -Solid waste management -Road, power, communication

-Port

パタヤ地区基盤整備計画

ASE THA/S 302/78 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
Description :		

Reasons of Stoppage:

(FY1991 Overseas Survey)

The Thai Government (National Economic and Social Development Board) applied for an OECF Loan in 1979 but was not accepted. A new local administrative office was established according to the new development plan and the new detailed design prepared by the Department of Town and Country Planning.

The project has been revived in a new JICA study "Pattaya Tourism Development."

**(F/S)** 

A	SE THA/S 3	03/78	Revised	Mar.2008
1.	COUNTRY	Thailand	•	
		Separate System of Metropolitan Water Supply in Bangkok		
2.	NAME OF STUDY	Separate System of Fred Sportain Tracer Supply in Dunghok		
<u> </u>	~~~~	Distriction (W. G. I		
	SECTOR	Public Utilities / Water Supply 4. TYPE OF STUDY F/S		
5.		Metropolitan Water Works Authority		
	COUNTERPART AGEN	ICY AT THE		
	TIME OF DEVELOPME	ENT STUDY		
	PRESENT COUNTERPA	ART AGENCY		
		Water Service plan		
		water Service plan		
6.	OBJECTIVES OF THE			
0.	STUDY			
-				
		Pacific Consultants International		
7.	CONSULTANT(S)			
		May.1977 ~ Jul.1978 14month(s)		
8.	STUDY PERIOD	May.1777 - Jul.1776 1-monun(s)		
		~		
		Bangkok metropolitan area		
9.	SITE OR AREA			
٠.	SITE ON THEE			
10.	MAJOR PROPOSED PR	ROJECT(S)		
1 P	roject: Separate System o	of Metropolitan Water Supply Project surrounding Bangkok		
		rrounding Bangkok city and the related housing and industrial project areas (168sq.km)		
3.T	arget year: Completion s	et at 2000 (Start to work in 1982)		
4.V	Vater source: 8 Amphoes	(excluding Nong Khaem) and Bang Chan from groundwater.		
	ne others from Central Sy			
	Froundwater: 33 Deep We			
J.C	noundwater. 33 Deep w	ens built in 7 areas.		
1				

**ASE** THA/S 303/78 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
Description :		

Reasons of Stoppage/Cancellation:

The project was implemented in different form from the proposed project.

### (FY1995 Overseas Survey)

MWA has been implementing Bangkok Water Supply Project since 1980. The most parts of the project is through Central System. The project is financed by MWA for 25% of the total cost, OECF for 30-40%, and bond issuance for the rest. JICA studied Separate System, however OECF finance is for Central System. The Central System is carrying on for the implementation of this Project.

**(F/S)** 

AS	SE THA/S 3	04/78							Revised	N	/ar.2008
1.	COUNTRY	Thailand									
2.	NAME OF STUDY	Rural Long Dist	ance Public Telephone Service								
3.	SECTOR	Communication	s & Broadcasti / Telecommunication	4.	TY	PE OF S	STUDY	F/S			
5.	COUNTERPART AGEN TIME OF DEVELOPME		Telephone Organization of Thailand								
	PRESENT COUNTERPA	ART AGENCY									
6.	OBJECTIVES OF THE STUDY	To recommend	the optimum transmission system to TOT.								
7.	CONSULTANT(S)	Nippon Telecon	nmunication Consulting Co., Ltd.								
8.	STUDY PERIOD	Aug.1978 ~ ~ Each place of th	Mar.1979 7month(s)								
10. I serr 2. 3. 14. (I serr 5. I serr 5. I serr 7. I se	vice in 469 rural areas. T Transmission system: Te Modulation system No much difference betw Equipment shelter Communication equipme possible minimum. System maintenance The existing maintenance project is completed. A	circuits, including cilephone exchan rrestrial transmission of the FDM and PC and Staton inclusive organization and the same time, is	public telephones, in major rural districts without tele ges in 18 districts in 1989, and in 187 more districts in sion system UHF (900 MHz band)  M system from technical and economic viewpoints e of power plant: This is to reduce construction cost and practices can be applied to each Maintenance Center It is desirable to introduce centralized supervisory systeol automatically recorded.	1994.	il wo	rk perio	d to the	: staffs	to some	exte	ent when

ASE THA/S 304/78 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

Finance:

Sep.1984 L/A (Rural Public Telephone Expansion Project, 3,090 mil. Yen)

\*Components of Project

- -Installation of radio communication system in 300 villages of 9provinces at the northern and north-eastern areas.
- -OECF loan for equipment to install transmission system like base station, relay station, tower, etc.

Construction:

Dec.1986 contracted Sep.1990 completed

(F/S)

Compiled Mar.1986 THA/S 305/78 **ASE** Revised Mar.2008 1. COUNTRY Thailand Phetchabun - Chai Badan Highway Project 2. NAME OF STUDY 3. SECTOR / Road TYPE OF STUDY F/S Transportation 5. Department of Highway COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Road Construction OBJECTIVES OF THE STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) Katahira & Engineers International Mar.1978 Mar. 1979 12month(s) 8. STUDY PERIOD Phetchanbun - Chai Badan. Northern Region 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Three Alternatives of route: I Improvement of local community II New land development III Improvement of transportation 1.Optimal route (I+II) Tha Maduk - Rang Yoi - Si Thep - Wichian Buri - Sap Bon - Nong Daeng - Pak Bot - Noen Sadao - Khok Charoen - Yang Lat - Tham Nam Bang -Nam Ron - Phetchabun 2.Road length 1)Improvement 130.1 km (85%) 2)New construction 21.2 km (15%) Total 151.3 km 3.Pavement type 1)SBST (asphalt) 94.2 km (62%) 2)Laterite 57.1 km (38%) Total 151.3 km 4.Road width 1)Formation width 9.0 m 2)Pavement width 5.5 m

ペチャブン~チャイバダン道路建設計画

ASE THA/S 305/78 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent Studies:

1980~1981 D/D undertaken (DOH)

Finance

Aug.1980 L/A (The Productive Road Construction Project (II), 8,160 mil.Yen)

\*Components of Project

The expence for the road improvement works from single to simple double lanes paved road for the existed non-improved 27 routes in the northern, north-eastern and central areas.

The total cost of the Project was made up of 50% of OECF Loan & 50% of DOH budget.

(FY1992 Overseas Survey)

1,366 million yen was appropriated for this project from the OECF loan. The balance (6,794 million yen) was applied for rehabilitation of 22 rural routes in the northern, north-eastern and central areas. The total cost for the project was 171.42 million bahts.

Construction:

Jun.1981 started

Sep.1983 completed

(FY 1992 Overseas Survey)

The construction was started in June 1981 for the Yang Lat-Phechabum route and was completed in September 1981 for Sithep-Wichian Buri route. The total length was 149.2 km. (Proposed length was 151.3km)

(M/P)

SE THA/S 101/			Revise	ed Mar.2008
COUNTRY	Thailand			
NAME OF STUDY	Bangkok Subur	ban Transportation Project		
SECTOR	Transportation	/ Railway	4. TYPE OF STUDY M/P	
		Expressway and Rapid Transit Authority(ETA), Roy	al State Railway of Thailand(SRT)	
PRESENT COUNTERPA	ART AGENCY			
OBJECTIVES OF THE STUDY	Transportation	Plan		
	Pacific Consulta	ants International		
CONSULTANT(S)				
STUDY PERIOD	Oct.1978 ~	Aug.1979 10month(s)		
	Bangkok Metro	opolitan Area		
SITE OR AREA				
mulation of Master Plan usic policy is to make the ain components are: purban lines(new constru 6 lines(11 segments) tota provement of existing lin (double track,new station lling stock(Year 2000) Suburban line 756 or 478	for large scale tr utmost use of ex ction) al length 102.8km es as, signal and con 8 (depending on f	isting railway system as the transportation means for p  nmunication) total length 151 km	people commuting to work.	
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  MAJOR PROPOSED PERMULATION OF MASTER PLANSIC PROPOSED PERMULATION OF PROPOSED PERMULATION OF MASTER PLANSIC PROPOSED PERMULATION OF PROPOSED PERMULA	COUNTRY NAME OF STUDY  SECTOR  Transportation  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Transportation  Transportation  OBJECTIVES OF THE STUDY  Pacific Consults  CONSULTANT(S)  STUDY PERIOD  Oct. 1978 ~  Bangkok Metro  Bangkok Metro  Transportation  Oct. 1978 ~  Transportation	COUNTRY   SECTOR	NAME OF STUDY  SECTOR  Transportation  / Railway  Expressway and Rapid Transit Authority(ETA), Royal State Railway of Thailand(SRT)  COUNTERPART AGENCY  PRESENT COUNTERPART AGENCY    Present Counter

ASE THA/S 101/79 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

Detail

(FY 1991 Overseas Sruvey)

The proposed projects have been integrated into the Infrastructure Section of the Ninth National Development plan.

### (FY 1993 Overseas Survey)

The implementation of the projects has been suspended because

(1)the Thai government puts higher priority on the settlement of the urban traffic problem.

(2)the existing railway system in the suburban area can be used.

There is unlikely that a new line will be constructed in the suburb of Bangkok.

### (FY 1995 Overseas Survey)

The implementing agency of this project was changed from ETA to MRTA (Metropolitan Rapid Transit Agency) in 1992. The Hong Kong firm, Hopewell, is now in charge of the implementation of some part of the projects (Ban Su-Don Muang Line).

#### (FY 1997 Overseas Survey)

As for suburban lines proposed by the study, construction of track with total length of 234km is in progress.

Other on-going projects are as follows.

- Doubling of track on the section of Bang Sue-Taling Chan

1994 started 1998 to be completed

- The construction of the third track on the section of Rangsit-Ayuthaya-Ban Phachi

1997 to be started 1999 to be completed (D/D was completed in Jul.1997)

# \*Related Development Study

"Improvement Plan for Railway Transport around Bangkok Metropolis in Consideration of Urban Development M/P+F/S (THA/S 217/95)"

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Mar.1990
ASE THA/A 101/79 Revised Mar.2008

AL	<u> </u>						Reviseu	Mar.2006
1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Irrigated Agricu	ıltural Development iı	n the Greater Mae Klong	River			
3.	SECTOR	Agriculture	/ (Agrica	ulture in) General	4.	TYPE OF STUDY	M/P	
5.	COUNTERPART AGENORIES OF DEVELOPME	CY AT THE		ure and Cooperatives				
	PRESENT COUNTERPA							
6.	OBJECTIVES OF THE STUDY	To formulate th of water usage.	e on-farm improveme	nt plan of Mae Klong are	ea in order to	increase the rice pr	roduction and the	efficiency
7.	CONSULTANT(S)	Sanyu Consulta	ints Inc.					
8.	STUDY PERIOD	Dec.1977 ~	Mar.1980	27month(s)				
9.	SITE OR AREA	Mid and down	stream of Mae Klong	River Basin: area 490,0	000ha			
10.	MAJOR PROPOSED PR	OJECT(S)						
	hort-term development pl		L					
~	isim de coopment pi							

- 1) Improvement of field of 185,900ha
- 2) Repair of irrigation and drainage canals of 1,082km
- 2.Long-term development plan
- 1) Improvement of field of 174,200ha
- 2) Repair of irrigation and drainage canals of  $56 \mathrm{km}$
- 3) Construction of irrigation and drainage canals of 345 km  $\,$

\* Cost 1) is for the short-term development plan and cost 2) is for the long-term development plan excluding the short-term development plan.

ASE THA/A 101/79 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

(FY 1997 Overseas Survey)

The outputs of the study have been incorporated into the 4th National Development Plan (1976~1981).

In 1979, F/S on "Kamphaeng Saen Irrigation and Agricultural Development" was conducted in the area where the M/P was implemented.

(1) Improvement of Rice Field along the Greater Mae Klong River

(\*This project targeted the land consolidation of approximately two million rai on the left bank of the Greater Mae Klong River.)

1. Improvement of 0.7 Million Rai Rice Field on the Right Band of the River (Phase-I)

Finance:

The World Bank loan

Construction:

Implemented (FY 1994 Domestic Survey)

2. Improvement of 290 Million Rai Rice Field on the Left Bank of the River (Phase-II) (\*the targeted area of this project)

Subsequent Studies: F/S

Please refer to "Kamphaeng Saen Irrigation and Agricultural Development" (THA/A 302/79)

3. PhaseIII

(FY 1996 Domestic Survey)

Bang Rain District (192,800 rai) is targetted.

Finance:

Annual budget of RID

Construction:

1995 Commenced (1999 scheduled to be completed)\*

\*It is decided that the secondary canals will be constructed but the construction of the tertiary canals is not to be undertaken.

Perspective or remaining works:

(FY 1997 Domestic Survey)

Schedule for construction of tertiary canals (192,800 Rai) at Bang Rain District was from 1995 to 1999. At present only 30% of work has been completed due to financial constraint. The period to complete was extended to 2001 but it will be extended more as to allocate budget is difficult.

**(F/S)** 

		(F/S)	Compiled	Mar.1990
AS	SE THA/A 3	302/79	Revised	Mar.2008
1.	COUNTRY	Thailand		
•	NAME OF STUDY	Kamphaeng Saen Irrigated Agriculture Development Project in the Mae Klong River Basin		
2.	NAME OF STUDY			
	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S		
5.		RID (Royal Irrigation Department), Ministry of Agriculture and Cooperatives		
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERP	ART AGENCY		
		Making an integral agricultural.		
		Development plan based on newly developed farm land.		
		bevelopment plan based on newly developed familiand.		
6.	OBJECTIVES OF THE STUDY			
		Sanyu Consultants Inc.		
7.	CONSULTANT(S)			
8.	STUDY PERIOD	Jan.1979 ~ Oct.1979 9month(s)		
		~		
		Kamphaeng Saen District, Mae Klang River Basin, western part of Central		
		Thailand, area 28,000ha, population 65,500		
9.	SITE OR AREA			
10	MAJOR PROPOSED PR	DOTECTICO		
		and drainage facilities constructed under the development project in Mae Klong River Basin.: 16,380 ha		
- 11	iiprovement or irrigation	and dramage facilities constructed under the development project in Mae Klong River basin.: 10,580 ha	ı	
_ Ir	nnrovement of terminal f	acilities such as irrigation and drainage ditches, farm roads, etc.: 16,380 ha		
- 11	iiprovement or terminar i	actities such as irrigation and dramage ditches, faith roads, etc. 10,300 ha		
Th	ne project area is estimate	d about 28.000ha, being the east part of B. Mae Klang area and located at the north of Nakhan Pathom.		
		17,200ha within 22,800ha of available farming area. Proposed terminal irrigation plan, including land		
		apporting facilities are as follows;		
	Renewaling canal: 48km			
	mprovement of drainage			
- f	lood preventation, road:	24.8km		
- la	and consolidation: 17,20	0ha		
1				

ASE THA/A 302/79 F/S

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

The Mae Klong Project Phase II covers this project area (Refer to "Irrigated Agricultural Development in the Greater Mae Klong River (1979)")

#### Finance

The World Bank loan and Own Fund

Total Investment Cost:approximately 1,944 mil. Bahts

#### Construction:

1990 Commenced

1995 Completed (excluding 192,800 rai of Bang Rain District)

In many districts only the secondary canals were constructed. The tertiary canal was dicided not to be constructed.

(FY 1996 Domestic Survey)

#### Construction

(FY 1994 Domestic Survey)

Although the initial plan covered the area of 28,000ha (175,000rai), the target was revised after the construction of basic facilities such as the drainage canals, etc.

### (FY 1995 Domestic Survey)

The original plan was to consolidate the land of 28,000ha with the Extensive method, however, only 3,500rai was consolidated and the remaining area was done with the Ditch and Dyke method.

### Reasons of scale down

The priority of this project was lowered because the Thai government changed its agricultural policy after the Fifth Five-Year Plan and gave higher priority to the small-scale irrigation project over the land consolidation project.

#### Maintenance & Operation:

The secondary canals were managed by RID while the tertiary canals were managed by beneficiaries.

#### Effect

The present planting area in the dry season is about 10~15% of the area initially planned

**(F/S)** 

AS		06/79 Revised Mar.20	)08	
1.	COUNTRY	Thailand		
2.	Nong Bua - Ban Lam Chi Bon Highway Project			
3.	SECTOR	Transportation / Road 4. TYPE OF STUDY F/S		
5.		Department of Road Ministry of communication		
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		ICY AT THE		
PRESENT COUNTERPART AGENCY				
	1	Provincial road improvement	_	
6.	OBJECTIVES OF THE STUDY			
7.	CONSULTANT(S)	Nippon Koei Co., Ltd. Katahira & Engineers International		
8.	STUDY PERIOD	Jun.1979 ~ Feb.1980 8month(s) ~		
		Nakkon Sawan Prefecture, Chiyaphum Prefecture		
9.	SITE OR AREA			
10	MA IOD DDODOGED DD			
	MAJOR PROPOSED PR			
1. an	Objective: The project ai east-west direction, to sup	I Nong Bua-Wang Wat II Wang Wat-Tha Pong III Tha Pong-Lup Pho ms at accelerating socio-economic development in rural areas and, at the same time, at providing an inter-provincial road, pplement the existing highway network which are mainly of radial type connection with Bangkok. a-Nong Ngu Luam-Sap Bon-Wang Wat-Tha Pong-Nong Bua Rave- Lup Pho	in	
	Road length			
	Improvement: 41.9km			
	Newconstruction: 112.8k	km total 154.7km		
	Road width Formation width: 9.0-10	Om		
	Pavement width (SBST):			
	Surface treatment			
	SBST: 105.0km (68%)			
2)	2) Soil aggregate surface: 49.7km (32%)			

ASE THA/S 306/79 F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

Promoting Factors:

- large development impact
- good linkage with other major road
- high priority
- effective administration

Subsequent Studies:

Dec.1984 D/D completed

Finance:

Sep.1983 L/A (the Productive Road Construction Project 3, 5,770 mil.Yen)\*

\*Components of project(The Productive Road Construction Project 3)

 $1.prefectural\ road\ construction\ in\ the\ northern\ and\ north-eastern\ Thail and. (165km)$ 

2.rehabilitation works of 8 routes in the northern area.(293.9km)

3.consulting costs.

(FY1992 Overseas Survey)

2,517 million yen was appropriated for the project from the OECF loan. The total cost for the project was 348.70 million bahts. The total length was 162.2 km.

Construction:

Feb.1986 commenced Aug.1988 completed

**(F/S)** 

AS	ASE THA/A 303/80 Revised Mar.2008				
1.	COUNTRY	Thailand	w Lom Irrigated Agriculture Development Project		
2.	NAME OF STUDY	iviae waiig-kev	w Lom inigated Agriculture Development Project		
	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY F/S	
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		RID (Royal Irrigation Department), Ministry of Agricu	lture and Cooperatives	
	PRESENT COUNTERPA	ART AGENCY			
6.	OBJECTIVES OF THE STUDY	To make integr renovation.	ated agricultural development plan bythe improvement of	of agricultural imfrastructure based on the field	1
7.	CONSULTANT(S)	Sanyu Consulta	ants Inc.		
8.	STUDY PERIOD	Jul.1979 ~	Mar.1980 8month(s)		
10. Irri Ma Tri Fie	MAJOR PROPOSED PE gation area: 22,700ha in irrigation canal: 100. butary irrigation canal: 7 lld improvement: 15,400 above costs are in 1979 p	ROJECT(S) 12 km 79.65 km Main d ha	city, Lampang Province, northern part of Thailand area 2	2,700 ha	

ASE THA/A 303/80 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Reason for the Project Cancellation:

Lowered priority of the land consolidation project due to the change in the agricultural policy.

### Detail:

At the time of the study, the Thai government enforced the Law of Agricultural Infrastructure Improvement and vigorously undertook the projects for the improvement of agricultural infrastructure in order to expand the area of double cropping, which was expected to result in the promotion of the self-sufficiency and the expansion of the agricultural products for export.

# (FY 1996 Domestic Survey)

As to a on-farm development project the sufficient level of technology transfer was conducted in the formerly completed projects. If this project should be implemented, no foreign assistance for the project implementation would be necessary.

# Related Project:

Construction of Kew Kohma dam

The kew Koham dam is considered to be one of water sources of this project.

(FY 1995 Domestic Survey)

Oct.1995 F/S is scheduled to be commenced by a local consultant (23 mil. Bahts)

Thailand

**(F/S)** 

Compiled Mar.1986 ASE
1. COUNTRY THA/S 307/80 Revised Mar.2008

2.	NAME OF STUDY	Bangkok Urban Truck Terminals Construction Project		
	SECTOR	Transportation	/ Land Transportation	4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	СҮ АТ ТНЕ	Department of Land Transport	
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	Traffic plan		
7.	CONSULTANT(S)	Pacific Consulta Nittsu Research	ants International Center Inc.	
8.	STUDY PERIOD	Aug.1979 ~	Mar.1980 7month(s)	
	SITE OR AREA	Bangkok metro	politan area	
	MAJOR PROPOSED PR			
Tru Par Pul Ma Wa	scription Scal ck terminal Carg king blic parking intenance facilities rehouse district	to handling: 12,0	OO t/day	

首都圏トラックターミナル建設計画

ASE THA/S 307/80 F/S

	Completed or In Progress	Promoting		
	Completed			
PRESENT STATUS	Partially Completed	Delayed or Suspended		
	Implementing			
	Processing	Discontinued or Cancelled		

# **Description:**

Reasons of Stoppage:

This project was reviewed in "Greater Bangkok Truck Terminal (1992)" and discontinued.

Situation before Stoppage:

Subsequent Studies:

D/D (local consultants)

Modified Point:

(FY1991 Overseas Survey)

Project scale was reduced from four terminals to three.

#### Situation:

Private investment have been promoted for the construction of truck terminals. So far, contracts have been signed on two of the four sites.

Due to rapid urbanization, some sites proposed for terminals have been already used for other purposes.

JICA is conducting a restudy of Bangkok urban truck terminals since Dec. 1991, in which suggestions will be made to expedite the project implementation.

**(D/D)** 

A	SE THA/S 4	02/80	Revised	Mar.2008
1.	COUNTRY	Thailand		
		Bangkok Telephone Network Project: Local Cable Network		
2.	NAME OF STUDY	Bangkok Telephone Network Troject. Both Cubic Network		
	SECTOR	Communications & Broadcasti / Telecommunication 4. TYPE OF STUDY D/D		
5.		Telephone Organization of Thailand		
	COUNTERPART AGEN	CCY AT THE		
	TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
		Detailed desires for 0 telephone condenses		
		Detailed designs for 8 telephone exchanges		
_	OBJECTIVES OF THE			
6.	STUDY			
		Nippon Telecommunication Consulting Co., Ltd.		
7.	CONSULTANT(S)			
	0 0 1 10 0 11 11 (0)			
		1 1070 I 1070 I 1070		
8.	STUDY PERIOD	Aug.1978 ~ Jun.1979 10month(s)		
٠.	51651151465	Oct.1979 ~ Aug.1980 10month(s)		
		Bangkok Metropolitan Area		
	SITE OR AREA			
9.	SITE OR AREA			
10.	MAJOR PROPOSED PR	OJECT(S)		
		able network for five exchanges		
(1	Proncnit, Chinwatana, Pa	ckrett, Ramintra, and Onutt-I)		
2) /	Additional detailed desigi	ns for three exchanges (Kurontoi, Labrana and Ekachai)		

ASE THA/S 402/80 D/D

	Completed or In Progress	Promoting
DDDGENE GEARNIG	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

Finance:

Jul.1978 L/A (EGAT Telecommunication Network Extension Project, 1,464 mil.Yen)

\*Components of Projects

- 1.Exchange of UHF telecommunication system and extension of route
- 2. Construction of PLC
- 3.Exchange or construction of VHF communication system
- 4.Installation of LFL
- 5.Installation of data transmission system

OECF loan for equipments/machinery for projects above.

The project has been implemented.

\* The Economic Development Project 1977~84 of TOT.

**(F/S)** 

Compiled Mar.1990

SE THA/A 3			Revised Mar.2008
COUNTRY		n Ma Dumning Imigation Project	
NAME OF STUDY	Nating Kiloi-Da	n 1910 i umping miganon i roject	
SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY F/S
		RID (Royal Irrigation Department), Ministry of Agricu	ulture and Cooperatives
PRESENT COUNTERPA	ART AGENCY		
	Feasibility study	y on irrigated agricultural development project.	
OBJECTIVES OF THE STUDY			
CONSULTANT(S)	Sanyu Consulta	nts Inc.	
STUDY PERIOD	Jun.1981 ~	Jan.1982 7month(s)	
MAJOR PROPOSED PRe objective of the project h introduction of the dry roposed cropping plans at ajor facility of the project lain pumping station: 1,0 rigation canal : 148km rainage canal : 22km	ROJECT(S) is to encourage t season crop as m re about 14,000h t is summarized a 00mm x 560kw, including lateral	he agriculture in the project area through stable irrigation as possible. a in wet season and 2,800ha in dry season within limited as follows;  Q=17.5cu.m/sec, H-16.5m, 7 units	
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PER OBJECTIVE OF the project hintroduction of the dry proposed cropping plans at a proposed cropping station: 1,0 or rigation canal : 148km rainage canal : 22km rainage canal : 22km	COUNTRY NAME OF STUDY  SECTOR  Agriculture  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Feasibility study  Sanyu Consulta  CONSULTANT(S)  STUDY PERIOD  Jun.1981  Rig  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  to objective of the project is to encourage the introduction of the dry season crop as magnetic proposed cropping plans are about 14,000has ajor facility of the project is summarized at a lain pumping station: 1,000mm x 560kw, frigation canal : 148km including lateral	Thailand   Kaeng Khoi-Ban Mo Pumping Irrigation Project

ASE THA/A 304/81 F/S

	Completed or In Progress	Promoting
DDECENTE COLATERIO	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

Subsequent Studies:

Jul.16.1982 L/A 940 mil.yen (Irrigation Development Project E/S)

\*Contents of study

To stabilize the supply of irrigation water and to improve the drainage condition through the construction of a pumping station and drainage / irrigation canals along the lower Pasak River.

Jul.1984~Jun.1985 D/D

Consulting Firm/JV of Sanyu Consultants Inc. and Chuo Kaihatsu

D/D for Irrigation Project of Kaeng Koi-Ban Mo Pump was commenced as a part of the above Irrigation Development Project with 190 mil. Yen. However, the water right disputes with farmers along Chainat-Pasak waterway caused the project delay.

#### Finance:

Sep.12.1995 L/A 3,308 mil. Yen (Pasak Irrigation Project)

	Foreign	Local	Total
	Currency (Yen)	Currency (Baht)	(Yen)
Civil Engineering	2,086	281	3,102
Procurement of Materials	90	13	139
Others	-	299	1,083
Reserve	401	54	594
Consultant Fee	461	43	618
Total	3,038	690	5,536
	(In million	s)	

The consultant fee for D/D for Patana Nikom area (35,500rai) and Patana Nikom-Kaeng Koi area (20,000rai) and D/D review etc. for Kaeng Koi-Ban Mo is included in the above "Consultant Fee". The term for the consulting service is for four years.

#### Construction:

(FY 1998 Domestic Survey)

July 1998 ~ April 1999 Review of contract for construction and D/D

Nov. 1999 ~ Dec. 2002 Construction (scheduled)

\*Contents of the project: Pump facility (D = 900mm X 5 units), pipeline (steel pipe, D= 1,700m, length=7.2km), open channel and additional facilities.

### Backgrounds:

(FY 1994 Demestic Survey)

Because the construction of Nakhon Nayok Dam was commenced in 1994, the resumption of this project is expectd.

#### (FY 1997 Demestic Survey

Consultant was selected for implementation of the project, but not signed yet. Consultant will start servicing early next year.

Contracted cost is 428,392,839 yens for foreign cost and 36,679,695 Bhats for local cost.

#### (FY 1997 Overseas Survey)

Decision making by MOAC is necessary.

(M/P+F/S)

Compiled Mar.1986 **ASE** THA/S 201B/82 Revised Mar.2008

1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Road Developm	nent in the Northern Region			
3.	SECTOR	Transportation	/ Road	4	4. TYPE OF STUDY M/P	Y+F/S
5.	COUNTERPART AGENCE TIME OF DEVELOPME					
	PRESENT COUNTERPART AGENCY					
6.	OBJECTIVES OF THE STUDY	Formulation of and improvemen	a master plan for highway development)	nt and feasibility ar	nalysis of priority road secti	ons (new construction
7.	CONSULTANT(S)	Nippon Koei Co Katahira & Eng	o., Ltd. ineers International			
8.	STUDY PERIOD	Jun.1980 ~	Mar.1982 21month(s)			
	SITE OR AREA	-	of the Norther Regions (170,000 sq.km	n)		
10	MA IOR PROPOSED PR	OIECT(S)				

<M/P> The study selected priority road sections by taking into account development potentials by area. 44 links (total length 1,200km) were selected for improvement or for new construction. A pre-feasibility study was undertaken on 31 links (860km) which were considered for short- and medium term implementation and narrowed down to 16 links (410km) for the subsequent feasibility study.

<F/S> The feasibility study was undertaken on 14 links(417.2km) requested by DOH. The analysis indicated the following 12 links (393.8km) as feasible.

- 11 links(F4 standard) Total 378.1km:
- 1)Khanu Woralaksa Buri ~ Kao Lieo ~ Rt. 117 46.0km;
- 2)B.Wang Chik ~ Rt.117(B. Pa Daeng) 13.0km;
- 3)B. Wang Tham ~ B. Tha Makham 8.3km;
- 4)B. Kiu Phrao ~ B. Kaen Tai 55.0km:
- 5)Rt. 115(B. Thung Maha Chai) ~ B. Nong Takhian 53.5km;
- 6)B. Thung Ngiu ~ B. Chomphu 47.8km; 7)A. Wang Chin ~ Thoen 54.0km;
- 8)B. Nong Khanak ~ B. Wang Pong 21.0km;
- 9)B. Rong Sua Ten ~ B. Huai Khom 13.2km;
- 10)A Phrom Phiram ~ Rt.11(B.Nong Makhang) 14.4km;
- 11)Rt.12(Muang Kao, Sukhothai) ~ Si Satchanarai 51.9km
- 1 link (F5 standard): A. Wat Bot ~ B. Nakham 15.7km.

ASE THA/S 201B/82 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Promoting Factors:

1) Large impact

Substantial contribution to the alleviation of regional disparities which was one of the major objectives of the 4th and 5th development plans.

2) Linkage with other projects

The proposed priority links were consistent with other priority road development projects.

3) Consistency with government policy

The Government of Thailand has been emphasizing public investments in the operation and maintenance of the existing roads, and the projects proposed by the study were consistent with this policy.

4) High priority

The Government has been emphasizing improvement of provincial roads and production-related roads, and the Norther Region has been given high priority in this regard.

Subsequent Studies:

1983~1986 D/D (DOH)

Finance:

Sep.1983 L/A (The Productive Road Construction Project 3, 5,770 million yen)

\*Components of project

1.prefectural road construction in the northern and north-eastern Thailand.(165km)

2.rehabilitation works of 8 routes in the northern area.(193.9km)

3.consulting costs.

3,241 million yen was appropriated for the project. 2,517 million yen of remaining loan was allotted for another road construction and 12 million yen for supervising consultant.

For the project, OECF loan (491.33 million bahts), World Bank loan (40 million baths) and DOH budget (89.20 million bahts) were appropriated.

Construction:

Jan.1986 Construction started Dec.1991 Construction completed

Nomber of link and total extension and financial resources:

OECF:1)52.2km, 2)14.8km, 3)7.9km, 4)55.1km, 5)46.4km, 6)47.6km,

7)52.8km, 12)15.1km

World Bank:

8)24.0km

DOH:

9)13.2km, 11)48.5km, 13)6.7km, 14)17.0km

Ministry of Interior:

10)not implemented

Each number corresponds to the number in "3.contents of Major Project(s)". Total link extension 401.3km.

(M/P+F/S)

Compiled Mar.1990

AS	SE THA/A 2	01B/82		]	Revised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Agricultural Coo	operative Promotion			
3.	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY M/P+F	F/S	
5.	COUNTERPART AGENORIES OF DEVELOPME	CY AT THE	Cooperatives Promotion Department MOAC			
	PRESENT COUNTERPA	ART AGENCY				
6.	OBJECTIVES OF THE STUDY	To raise the agri	cultural production of cooperative member farms and	to improve their socio-economic	well-beir	g.
7.	CONSULTANT(S)	The Institute for	the Developmment of Agricultural Cooperation in As	ia		
8.	STUDY PERIOD	May.1980 ~	Feb.1982 21month(s)			
	SITE OR AREA	In the districts of located <f s=""></f>	part of north, central, northeast, south, totaling 8 place f north, central, northeast, south, where four proposed		ral cooper	ative are
	MAJOR PROPOSED PR	( /				
<m< th=""><th>/P&gt; We pointed realities</th><th>and problems of</th><th>organization, operations and management of agricultu</th><th>ral cooperative of Thailand, and</th><th>proposed</th><th>basic idea</th></m<>	/P> We pointed realities	and problems of	organization, operations and management of agricultu	ral cooperative of Thailand, and	proposed	basic idea
	their improvement, based					

- 1. Basic idea to strengthen the function of agricultural cooperative four strategic targets, streng thening of member's organization base, promotion of regional agriculture by conducting guidance of agriculture management, expansion of sales and purchase abiding by fair rule, realization of comprehensive agricultural financial system, are shown, and "total system" to facilitate all of them in a comprehensive way was proposed.
- 2. Establishment of Agricultural Cooperative

<F/S>

- 1. Projects to nurture agricultural cooperative
- 2. Establishment of consultant units and traveling guidance
- 3.Strengthening of training by agricultural cooperative training centers
- 4.Improvement of facilities of agricultural cooperative
- 5. Comprehensive financial measures

ASE THA/A 201B/82 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

<M/P>

 Thai Government requested Japanese Government for cooperation on the establishment of model agricultural cooperatives based on the final master plan report of Feb.1981

2. An S/W mission was sent to Thailand on F/S in July 1981.

After the S/W was concluded the study was conducted from July to Sept.

<F/S>

Mar.1982 The final report of F/S was submitted.

Dispatch of Experts.

Thai Govt. requested Japanese Govt. for dispatch of experts to establish consultant unit.

Dec.1982~Dec.1983 2 experts dispatched Jun.1983~May.1984 2 experts dispatched

They made guidance travels to 5 agricultural cooperative at the morth-eastern Thai.

Project-type Technical Cooperation "Agricultural Cooperative Promotion (1984.7.6~1991.7.5)"

Jun.1983 requested from Thai Govt.

Jul.1984 5 experts were dispatched continuously for 5 agricultural cooperative area.

Jul.1989~Jul.1991 follow-up cooperation

Grant Aid:

Jun.1983 requested from Thai Govt.

Sep.1984 B/D

Mar.7.1985 E/N (Project for the Construction of the Regional Agricultural Cooperative Training Center 598 mil. Yen)

Training Center was constructed and training courses for personnel of cooperative have been undertaken.

#### Investment Cost (thousand Baht)

	JICA	RTG	Total
JanJun.87	4,489	175	4,664
May -Nov.87	3,711		3,711
FY 87, 88	4,000	233	4,233
FY 89	4,000	200	4,200
Total	16,200	608	16,809

Thai side appreciate the model project of the agricultural cooperative development.

(M/P+F/S)

Compiled Mar.1986 **ASE** THA/S 202B/82 Revised Mar.2008

1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Bangkok Sewera	ige System Pro	ject			
3.	SECTOR	Public Utilities	/ S	ewerage		4.	TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGENO TIME OF DEVELOPME PRESENT COUNTERPA	CY AT THE NT STUDY	Department of	Drainage and S	Sewerage, BMA		
6.	OBJECTIVES OF THE STUDY	Planning on the of F/S on first phase					
7.	CONSULTANT(S)	Nihon Suido Coi	Jihon Suido Consultants Co., Ltd.				
8.	STUDY PERIOD	Aug.1979 ~ Jul.1980 ~	Feb.1980 Jul.1982	6month(s) 24month(s)			
	SITE OR AREA	river. <m p=""> Bangkok City<f< th=""><th></th><th>a located at the</th><th>other side of Chao Pha</th><th>nya</th><th></th></f<></m>		a located at the	other side of Chao Pha	nya	

<M/P> Bangkok City has some problems such as flooding in rainy season and water pollution of river in dry season. Several studies on those problems have been carried out. This study was to review the previous study reports and to make new master plan in order to obtain the practical plan. Scope of the study is limited for sewerage system planning.

<F/S>

Project area : 970 ha

Intercepting sewer: d 3,000-2,400mm for L=7,100m Combined sewer : d 8,500-2,000mm for L=1,300m Intermediate Pumping Station: 3 stations,Q=13-24cu.m/min

Plant : Q=135,000 cu.m/day

Inf.BOD= 160 mg/l Eff.BOD= 60 mg/l

(Modified aeration process: grit chamber, aeration tank, final sedimentationbasin, basin, chlorination chamber, digester, etc.)

ASE THA/S 202B/82 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

DDS reviewed JICA M/P from 1990 and the following five projects have been implemented.

(1) Sipraya

<Sewage Treatment Plant> capacity 30,000m 3/day

Finance:BMA 284 mil.Bahts

1993 Completed

1994 The operation started

The Contact Stabilization Activated Sludge Process was adoped.

<Collecting System> capacity 40,000m 3/day.

1994-1996 Construction implemented

(2) Rattanakosin

Finance:national government 883 mil.Bahts

1995 Scheduled to be completed

The Two Stage Activated Sludge Process was adopted.

(3) Din Daeng (Waste Water Treatment Project Phase I)

capacity 350,000m 3/day.

Finance:national government (75%) and BMA (25%) 6,382 mil.Bahts

Dec.1996 Scheduled to be completed

The Taper Conventional Activated Sludge Process was adopted.

(4) Yannawa capacity 200,000m 3/day.

Finance:national government (60%) and BMA (40%) 4,552 mil.Bahts

1995 Construction commenced. Design and construction is planned to be completed in three years.

The Sequencing Batch Reactor Activated Sludge was adopted.

(5) Nongkham-Phasicharoen-Ratburana

Finance:national government (60%) and BMA (40%) (7,094 mil.Bahts) The contractor is not confirmed yet, but it is scheduled to be completed by 2000. The treatment capacity is 157,000m 3/day in Nongkham-Phasicharoen and 65,000m 3/day in Ratburana.

Bofore the commencement of the project

(M/P)

This M/P was valued more practical than the existing reports concerning the sewage system. However, the Thai govrnment put higher priority on the flood control to the improvement of the sewage facilities. Because the Thai government had requested the World Band to assist the improvement of the drainage system, the Japanese government had not been asked for the technical cooperation on this issue. After the completion of this M/P, a F/S and a dispatch of experts were implemented. Furthermore, "Master Plan on Flood Protection/Drainage Project in Eastern Suburban Bangkok (1986)" were implemented as a result of this study.

Related Projects:

(FY 1997 Overseas Survey)

Subsequent Study:

Sep.1996~Mar.1998 F/S (BMA)

\*Components of study

Waste water from household, factory, building and others, cost study for the whole system of waste water in the present time and future.

Cost estimation for waste water management.

Study for regulations and law related to waste water, management within and outside Thailand.

Fee for waste water service study within and outside Thailand, including of criteria for fee calculation and user class, and other related matters.

Consulting Firm / Asian Institute of Technology

Study Cost / 2.8mil.Bahts.

Jul.1997~May.1998 F/S (BMA)

\*Components of study

Agricultural use, Land appreciation alternatives

Consulting Firm / Progress Technology and other

Study Cost / 13mil.Bahts.

(M/P+F/S)

			(NI/P+F/S)			Compiled	Mar.1986
AS	SE THA/S 2	03B/82				Revised	Mar.2008
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Bangkok Solid V	Waste Management				
3.	SECTOR	Public Utilities	/ Urban Sanitation	4.	TYPE OF STUDY	M/P+F/S	
			Public Cleansing Dept., BMA				
_	COUNTERPART AGEN TIME OF DEVELOPME						
5.	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY		P of inproving waste disposal bility study of it.				
7.	CONSULTANT(S)	Tokyo Metropol	is Environmental Service Corporation				
8.	STUDY PERIOD	Aug.1979 ~ May.1980 ~	Feb.1980 6month(s) Sep.1982 28month(s)				
9.	SITE OR AREA	City of Bangkok					
10.	MAJOR PROPOSED PR	ROJECT(S)					
			osal system by the year of 2000				
(1)	d 67 immediate action pr The master plan includes 5 composting plants, 2 in 3 final disposal sites,1,19 88 road sweepers, 5 river 110 barges, 25 dump true	s construction and acineration plants, 90 collection vehice c cleaning boats,	cles,				
(2) I 1 2 3	(2) The immediate action programmes in which 3 levels of priority is shown include improvements in :  1] discharge and collection system  2] transport and transferring system  3] composting plants  4] final disposal system						
5 6	administrative system countermeasures to floce total cost above pertains		n improvement plan.				
<f cor<="" td=""><td>(S&gt; nstruction of final disposanstruction of refuse incin</td><td>al site 3 1,500 eration plant 2 1,</td><td>0t/d 500t/d X2</td><td></td><td></td><td></td><td></td></f>	(S> nstruction of final disposanstruction of refuse incin	al site 3 1,500 eration plant 2 1,	0t/d 500t/d X2				
Coi	nstruction of rapid type c	omposting plant 2	2 800t/d				

ASE THA/S 203B/82 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

Dispatch of Experts:

The expert was dispathed from Kawasaki-city by 1989.

(1)Compost Plant

(FY 1995 Overseas Survey)

A new plant is under construction in On Nut (1,000t/day) (Scheduled to be completed in 1995)

The construction of plants in Ram Intra and Nong kean has been completed.

The total capacity of three plants will be 2,000t/day. (Financed by the central government (60%) and BMA (40%))

(2)Construction of Incinerator

Because of the land acquision problem, this project was not implemented. The project was integrated into "Bangkok Solid Waste Management (II) (1990)".

(FY 1997 Overseas Survey)

On-Nut Medical Waste Treatment by Incinerator.

F/S has not been undertaken yet.

(3)Others

(FY 1991 Overseas Survey)

Most of the short-term plans proposed in M/P, such as the introduction of compact trucks, the waste collection by boats, the supply of uniform to the collection workers, etc. have been implemented.

(FY 1995 Overseas Sruvey)

In 1984 the Tokyo Metropolitan Government provided 10 used trucks and BMA procured trucks with the own fund.

#### Remenining Project:

(FY 1997 Overseas Survey)

Waste minimization, Private collection, Transfer station (to be implemented)

Seashore or wet-land landfill is not constructed because of economic reason.

\*Bangkok Solid Waste Management (III) (1990)

1989-1991 M/P+F/S implemented

Reasons for its implementation

The amount of wastes exceeded that predicted in this Study. The construction cost of an incinerator was beyond the budget which BMA could have allocated to the project and BMA had not made any preparation for the procurement of a loan. Due to the rapid increase of land prices, the land acquisition was more difficult than it had been expected.

(F/S)

			(F/S)	Compiled	Mar.1990
AS	E TI	HA/A 30	05/82	Revised	Mar.2008
1.	COUNTRY	7	Thailand		
		1	Photohoburi Kaang Krachan Irrigatad Agricultura Davalanmant Project		

1.	COUNTRY	Thailand									
2.	NAME OF STUDY	Phetchaburi-Ka	eng Krachan Irrig	ated Agricultu	ure Develop	ment Projec	et				
3.	SECTOR	Agriculture	/(	Agriculture in	) General		4.	TYPE OF ST	<b>TUDY</b>	F/S	
5.	COUNTERPART AGENO	CY AT THE	RID (Royal Irrig			stry of Agric	ulture				
	PRESENT COUNTERPART AGENCY										
6.	OBJECTIVES OF THE STUDY	Feasibility study	y for irrigation and	l drainage sys	stem improv	rement and p	ormotio	on of land con	nsolidat	ion	
7.	CONSULTANT(S)	Sanyu Consulta	nts Inc.								
8.	STUDY PERIOD	Nov.1980 ~	Mar.1982	16month(s)							
Phetchaburi River Basin, area: 52,600 ha, population: 192,000  9. SITE OR AREA											
10	MA IOD DDODOSED DD	OTECT(S)									

#### 10. MAJOR PROPOSED PROJECT(S)

Development of irrigation agriculture centering on improvement of irrigation canal for Phetchaburi irrigated area of 45,000ha and new development of 7,100ha, and terminal facilities.

The Project aims to increase agriculture production in the project area with improvement and for readjustment of irrigation and drainage system in proper combination with existing facilities, those are Pechi Head Works and the Irrigation System constructed in 1950, Kan-Kra (hang Reservoir constructed in 1966 and the sea dike.

Irrigation System Farm Land

new canal : 120 km land consolidation : 52600 ha

canal lining : 167 km canal improvement : 128 km ASE THA/A 305/82 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
D		

#### Description:

Reasons for the Project Cancellation:

Lowered priority due to the change in the agricultural policy.

#### (FY 1994 Domestic Survey)

While this project mainly aims at the development of on-farm facilities, the Thai government put higher priority on the water resources development. Thus, no progress has been made for the project implementation.

The thai government intends that farmland consolidation and agriculture infrastructure improvement to be undertaken by private sectors instead of the government. Besides this case, projects of farmland consolidation and agriculture infrastructure improvement are executed by organizations of farmers financed by private banks.

(F/S)

Compiled Mar.1990

THA/A 306/82 **ASE** Revised Mar.2008 COUNTRY Thailand Mae Kuang Irrigated Agriculture Development Project 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General TYPE OF STUDY F/S Agriculture 5. RID (Royal Irrigation Department), Ministry of Agriculture and Cooperatives COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY **OBJECTIVES OF THE** STUDY Sanyu Consultants Inc. 7. CONSULTANT(S) Taiyo Consultants Co., Ltd. Feb.1981 Feb.1982 12month(s) 8. STUDY PERIOD Chieng Mai and Lampoon Provinces 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) 1. The dimension of dam Crest elevation Embankment volume Dam height Dam length (m) (MCM) (m) (m) 1) Left saddle dam 395.0 2.26 52.0 650 2) Main dam 395.0 5.58 77.0 645 3) Right saddle dam 395.0 1.44 41.0 655 2. Main irrigation canal: 87.4km 3. Lateral irrigation canal: 146.6km 4. The capacity of hydropower generation 1) Optimum installed capacity: 3.7MW 2) Annual energy: 16.3GWH 5. New cropping patterns Rice-Rice, Rice-Groundnut, Rice-Soybean, Rice-Sweet corn, Rice-Tobacco, Rice-Garlic, Rice-Vegetables, Soybean-Tobacco, Soybean-Groundnut and Longan

ASE THA/A 306/82 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

### **Description:**

Subsequent Studies:

Jul.16.1982 L/A 940 mil.Yen

(Irrigated Agriculture Development Project E/S) D/D undertaken using 190 mil.Yen of above

(Sanyu Consultants, Inc.)

\*Components of project

1. Review of F/S, proposal on additional study

2.D/D

3. Preparation of tender documents

4.Cost estimation, evaluation of project

First Stage Construction:

Sep.18.1984 L/A 2,300 mil.Yen

(Mae Kuang Irrigated Agriculture Development Project)

\*Components of the Project:

Construction of Mae Kuang left saddle dam

Construction: Under direct management of RID and supervised by Sanyu Consultants, Inc.

Second Stage Construction:

Oct.4.1985 L/A 9,197 mil.Yen

(Mae Kuang Irrigated Agriculture Development Project II)

\*Components of the Project:

Construction of Mae Kuang main and right saddle dam

Construction: Undertaken by a Chinese company (China State Const), supervised by Nippon Koei Co.Ltd.)

Third Stage Construction:

Sep.21.1987 L/A 2,805 mil.Yen

(Mae Kuang Irrigated Agriculture Development Project III)

\*Components of the project:

Construction of Main canal (68.6km), tributary canal (99.0km), administration facilities (32)

Construction: Undertaken by an Italian company (Lodigiani S.P.A.), supervised by Sanyu Consultants, Inc. and Team Consulting Eng.

1993 Construction work has been completed

(F/S)

Compiled Mar.1990

THA/A 307/82 **ASE** Revised Mar.2008 1. COUNTRY Thailand Upper Pasak Medium Scale Irrigation Project NAME OF STUDY 3. SECTOR / (Agriculture in) General 4. TYPE OF STUDY F/S Agriculture 5. Royal Irrigation Department, Ministry of Agriculture and Cooperatives COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Feasibility Study -to identify the order of priority; and -to formulate an irrigated agricultural development project and identify the OBJECTIVES OF THE feasibility of the project. STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) Chuo Kaihatsu Corporation Mar.1983 Aug.1981 19month(s) 8. STUDY PERIOD Upper Pasak river basin under PHETCHABUN Province (about 330km north from Bangkok) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Huai SaduangYai Huai Khon Kaen Huai Yai K.Chaliang Lab Sub-Project 1.Irrigation Area(ha) 5,400 5,100 1,800 1,200 2.Dam 1)Type Earthfil Earthfil Earthfil Earthfil 2)Height(m) 38 57 38 35.3 3)Crest Length(m) 467 950 816 1,259 3.Irrigation Canal(km) 105.2 26.6 21.2 36.7 4.Drainage Canal 72.3 20.0 \* Below implementation period is 10 years.

ASE THA/A 307/82 F/S

PRESENT STATUS

Completed or In Progress
Completed
Partially Completed
Partially Completed
Implementing
Processing
Discontinued or Cancelled

#### **Description:**

Subsequent Studies:

1986~1992 F/S review and D/D for (1),(2) (RID) Study Cost / Government budget 180mil.Bahts Consulting firm / Thai Consultants

#### (1) Huai Khon Kaen

Finance:

Government fund 653mil.Bahts

Construction:

<Dam>

1990 Commenced

1994 Completed

<Distribution System>

1998 to be commenced

#### (2) K.Chaliang Lab

Finance:

Government fund 145mil.Bahts

Construction:

1993 Commenced

1997 Completed

Construction Trader / Local Trader

#### (3)Huai Sadung and Huai Yai

(FY 1996 Overseas Survey)

The two Projects are placed in the next 5 years construction program (1997-2001). D/D at Huai Yai is scheduled for 1997 by local budget.

(FY 1997 Overseas Survey)

Huai Yai Project is expected to start in 1998 and Huai Saduang Yai in 2000.

#### Maintenance & operation:

The Thai Government has been in charge of the operation.

		00/02	(F/S)	Compiled	
AS				Revised	Mar.200
1.	COUNTRY	Thailand	Construction Project		
2.	NAME OF STUDY	Kama vi Bridge	Construction Project		
3.	SECTOR	Transportation	/ Road 4. TYPE OF STUDY F/S		
5.	BEGIGN	Transportation	Public Works Dept.(PWD), Ministry of Interior		
	COUNTERPART AGENTIME OF DEVELOPME				
	PRESENT COUNTERPA	ART AGENCY			
		Alleviation of tr	affic congestion in Bangkok, with the bridge serving to complete the middle ring road		
6.	OBJECTIVES OF THE STUDY				
	CONSULTANT(S) STUDY PERIOD		ering Consultants Co.,Ltd. Consultants Co., Ltd.  Mar.1982 9month(s)		
0.	STUDI FERIOD	Northern area o	f Bangkok		
9.	SITE OR AREA				
	MAJOR PROPOSED PR	OJECT(S)			
M 85 A <sub>1</sub> 2)N wi (3 (3)N wi	lew Highway Bridge ain Bridge: total length 2 sm+120m+85m=290m lo pproach Bridge: width 23 lew Railway Bridge adth 12.5m total length 7 span continuous prestres lew Roads adth 9.4m ~ 5.7m, total lengther structures	ng(3 spans) (Frey .3m (6 Lanes), 1.9m(dual track) sed concrete gird	vssinet cantilever erection method) total length 650m		
	verfront, side ditch, drain ndscaping, pedestrian brid	•	mp station, utilities, electricity, water and telecom (Total 5,700m), parking spaces, parl	ζ,	

チャオピア河架橋計画(ラマ六世橋建設計画)

ASE THA/S 308/82 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

- 1) Large impact: stimulation of the regional economy by the alleviation of congestion and the reduction of travel time
- 2) High priority: the completion of the Middle Ring Road ensures the balanced growth of the metropolitan area of Bangkok.
- 3) Administrative expertise: PWD has experiences in bridge construction (already constructed 5 bridges across Chao Phraya River)

#### (FY 1992 Overseas Survey)

The project is included in the 5th and 6th National Social and Economic Development Plan.

#### Subsequent Studies:

Sep.1983 OECF (10th) L/A (New Rama VI Bridge Construction Project (E/S), 170 mil.Yen) Aug.1986 D/D completed

#### Finance:

Sep.1987 OECF (13th) L/A (New Rama VI Bridge Construction Project, 5,599 mil.Yen)\*

- \*Components of the Project
- 1.PC concrete bridge (total length 290m)
- 2. Approach bridge
- 3.Railway bridge
- 4.Land scape
- 5.Other road construction works
- 6.Supervision

(Loan for foreign currency and a part of local currency)

#### Construction:

Dec.1988 PQ for construction completed

Jun.1989 Tender for construction closed

Nov.1989 Construction contract completed

Jan.1990 Notice to proceed received by the contractor

Sep.1992 Construction completed

Sep.1993 Maintenance period ended

\*Refer to "Rama IV Bridge Rehabilitation Project (THA/S 403/82) JICA D/D" for detail.

(F/S)

Compiled Mar.1986 **ASE** THA/S 309/82 Revised Mar.2008

1.	COUNTRY	Thailand							
2.	NAME OF STUDY	East Coast Water	st Coast Water Resources Development Project						
3.	SECTOR	Social Infrastruct	ocial Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S						
5.	COUNTERPART AGENO	CY AT THE	Royal Irrigatio	on Department		·			
PRESENT COUNTERPART AGENCY									
6.	OBJECTIVES OF THE STUDY	Water Resources	Development	covering Rayons	g, Nong Pla Lai, Cho	n Buri C	Changwats		
7.	CONSULTANT(S)	CTI Engineering Co., Ltd. Sanyu Consultants Inc. Nomura Research Institute							
8.	STUDY PERIOD	Feb.1981 ~	Mar.198	2 13month(s)					
	SITE OR AREA	East Coast Region	on (changwats	Rayong and Cho	n Buri)				
10.	MAJOR PROPOSED PR	OJECT(S)							

- 1. Nong Pla Lai Sub-project
- a. Reservoir and dam:

Catchement Area 426 sq.m, Gross reservoir storage 200,700,000 sq.m; Dam type-Earth fill type with cut-off trench, Crest elevation EL. 49.0 m, Max. dam height 31.0 m, Crest length 4,000m

b. Water transmission system:

Supply to Mab Ta Pud: Design discharge 3.63 cu.m/s, Total length 27.6 km

Supply to Sattahip from Mab TA Pud: Design dicharge 1.09 cu.m/s, Total length 21.9 km

Supply to Laem Chabang: Design discharge 1.01 cu.m/s, Total length 53.0 km

c. Irrigation and drainage system

Irrigation area 3,650 ha, Irrigation canal: Main length 46.2 km, Lateral length 20 km Drainage area: Insige the project area 21.3 sq.m, Outside the project area 14.9 sq.m;

Drainage length 6.5 km

2. Ban Bung Sub-project

Reservoir and dam: Catchment area 53 sq.m, Gross reservoir storage 21,900,000 cu.m;

Dam type-Earth fill type with cut-off trench, Crest elevation EL. 86.3 m, Max. dam height 21.5 m, Crest length 2,800 m

ASE THA/S 309/82 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(1) Nong Pla Lai Project

Subsequent Studies:

July 1982 L/A 320 mil. Yen (E/S)

This is a part of the Irrigation Development Project (E/S) and for the construction of the dam on the upper Layon

River in order to supply water to the urban area.

inance:

Sep. 1988 L/A 4,357 mil. Yen (Nong Pla Lai Construction Project I)

\*Components of project:

Construction of a dam with the capacity of 150 mil.tons and of related facilities

Construction:

1990-1993 (FY 1996 Overseas Survey) implemented

Contractor: Sanyu Consultants Inc.

Contractor Trader: Guohua International Contracting (FY 1996 Overseas Survey)

Maintenance and Operation: RID

(2) Water Conveyance Facilities

Subsequent Studies:

Sep. 1982 D/D completed (Consulting firm:CTI Engineering Co., Ltd.)

Finance:

July 1982 L/A 6,570 mil.Yen for the construction of pipelines connecting the reservoir-Mab Ta Phud and Mab Ta Phud-Sattahip

Nov. 1988 L/A 1,459 mil. Yen for the construction of the Mab Ta Phud-Sattahip Pipeline

Construction:

Apr.1983 - Sep. 1984 Construction of pipelines connecting the reservoir and Mab Ta Phud

1991 - 1992 Construction of the Mab Ta Phud-Sattahip Pipeline

Contractor Trader: A.S. Associated Engineerring Co.Ltd.

(FY 1996 Overseas Survey)

Maintenance and Operation: Eastern Water Resource Development and Management Co.Ltd.(FY 1996 Overseas Survey)

Detail:

(FY 1997 Domestic Survey)

No additional information.

**(D/D)** 

Compiled Mar.1988

AS				Revised Mar.2008	
1.	COUNTRY	Thailand			
2. NAME OF STUDY Rama VI Bridge Rehabilitation Project					
3.	SECTOR	Transportation	/ Railway	4. TYPE OF STUDY D/D	
5.		1	State Railway of Thailand		
	COUNTERPART AGEN TIME OF DEVELOPMI				
	PRESENT COUNTERPA	ART AGENCY			
6.	OBJECTIVES OF THE STUDY	D/D and cost es danger of collar		ments on the rehabilitaion of the Rama VI bridge, which was in	
7.	CONSULTANT(S)	Japan Railway	Technical Service		
8.	STUDY PERIOD	Jan.1982 ~	Dec.1982 11month(s)		
10. (1) (2) (3) (5) (6) (7) (8) (9) (10) * c	Analysis of causes of de Study on repair policies Study on construction mandapproximate calculation Detailed design Preparation of calculation Cost estimation Deparation of specification of spe	ROJECT(S) nt status riverbed formation ; (4) Basic designethods n of costs on sheets for work ations e piers and cost 2)	c execution		

ASE THA/S 403/82 D/D

	Completed or In Progress	Promoting
DDDGENE GEARNIG	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

1.Short-term plan

Finance:

Domestic fund (construction cost 31 mil.bahts)

Realized Project:

Repair work on bridge piers and shoe resetting were implemented and the restriction on train speed lifted.

2.Long-term plan

(1)Double-tracking of Rama VI Bridge

Finance:

SRT (construction cost 47 mil.bahts)

Constructionl: May.1994 started Jul.1995 completed

(2)The approach at Bangkok side

Finance:

(Construction cost 45.2 mil.bahts)

Construction:

The approach at Bangkok side was designed to use composite bridges similar to the existing track which is in parallel.

(3)The approach at Thonburi side

Completed

\*Refer to "Rama VI Bridge Construction Project (THA/S 308/82, JICA F/S)" for detail.

**(D/D)** 

Compiled Mar.1990

AS	E THA/S 4	04/82						Revised	Mar.2008
1.	COUNTRY	Thailand							
2.	NAME OF STUDY	Dok Krai - Mab	Ta Pud Wate	er Pipeline Projec					
3. SECTOR Social Infrastru  5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			cture Royal Irriga Department(	tion	ces Developmen	t 4.	TYPE OF STUDY D/D		
	PRESENT COUNTERPA	ART AGENCY							
6.	OBJECTIVES OF THE STUDY	Executive desig	n for construc	ction of pipeline	between Dok Kra	ai reservoir and	d Mab Ta Pud		
7.	CONSULTANT(S)	CTI Engineering Sanyu Consulta Nihon Suido Co	nts Inc. Insultants Co.						
8.	STUDY PERIOD	Nov.1981 ~	Aug.1	982 9month(s	)				
10. Nor Pipe	MAJOR PROPOSED PRog Pla Lai Dam: eline: gation Water Drainage S	200MCM 27.6 kr	n						

ASE THA/S 404/82 D/D

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

The reasons why this project has been realized are as follows:

- (1) High degree of priority: The industrialization of the east coast region was the No.1 priority project of the Government of Thailand
- (2) RID was directly commissioned by the Prime Minister to pushing forward of the project.

#### Subsequent studies

Sep. 1982 D/D completed (CTI Engineering Co., Ltd.)

#### Finance:

Jul.1982 L/A 6,570 mil.Yen

(Water Pipe Line Project in the East Coast Area)

\*Components of Project

1) Water pipe line between Dok Krai Reservoir and Mab Ta Pud. (length 26.5km, diameter 1,350mm)

2)Construction of water pipe line between Mab Ta Pud and Sattahip. (length 22km, diameter 1,000mm)

OECF loan for construction works and supervision of 1) and E/S of 2)

#### Construction:

Nov.1984 completed

\* "East Coast Water Resources Development Project (THA/S 309/82 JICA F/S)"

(Basic Study)

		(Basic Study)	Compiled	Mar.1990
AS			Revised	Mar.2008
1.	COUNTRY	Thailand		
2.	NAME OF STUDY	Water Supply Project to Laotian Displaced Persons: Nakhon Phanom Camp and Pak Chom Camp		
3. 5.	SECTOR	Social Infrastructure	Study	
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
		Survey of underground water resources		
6.	OBJECTIVES OF THE STUDY			
_		Japan Engineering Consultants Co., Ltd.		
7.	CONSULTANT(S)			
8.	STUDY PERIOD	Feb.1982 ~ Nov.1982 9month(s)		
		Two camps for Laotian refugees in the northeastern part of Thailand		
9.	SITE OR AREA			
10	MAJOR PROPOSED PR	DOECTIC		
	phase study:	ROJECT(S)		
		ey at Nakhon Phanom Camp (test boring at 4 sites and identification of 2 sites for tube wells)		
2nc	l phase study:			
	Underground water surve	ey at Pak Chom Camp (test boring at 4 sites and identification of 2 sites for tube wells)		

**ASE** THA/S 501/82 **Basic Study** In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** (FY 1996 Domestic Survey) As on urgent countermeasure for Lao refugees, wells were constructed at the same time of boring survey. Finance: May.3.1983 E/N 495 mil.Yen Construction: 6 deep wells were constructed in both camps. Nakhom phanom Feb.~Apr.1982 Pak Chom May.~Oct.1982 Effect: Water service for 20,000 persons in Nakhon Phanom and 50,000 persons in Pak Chom.

(M/P)

Compiled Mar.1990

Mar.2008

Revised

1. COUNTRY Thailand Road Development in the Northeastern Region 2. NAME OF STUDY 3. SECTOR / Road TYPE OF STUDY M/P Transportation 5. Dept. of Highways, Ministry of Communications COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Formulation of a master plan for road development in the Northeastern Region **OBJECTIVES OF THE** 6. STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) Katahira & Engineers International Mar.1982 Mar.1983 12month(s) 8. STUDY PERIOD 16 changwats of the Northeastern Region (169,000 sq.km) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) The study proposed the following priority projects. - New construction and improvement 18 routes (666.9km) - Rehabilitation 25 routes (468.0km)

**ASE** 

THA/S 102/83

ASE	THA/S 102/83	M/P
	In Progress or In Use	
PRESENT STA	ATUS Delayed	
	Discontinued	
scription :		
velopment in th Y 1997 Oversea	rity projects, F/S was implemented on the construction and improvement of 15 routes (502.1km) and the renovation of eight routes (90km) (e North-Eastern Region (Phase 2) (1985)). s Survey) 3/D and D/D were undertaken	(Road
ilization of Outp Y 1997 Oversea ne recommendat	outs: s Survey) ions made by the study were incorporated into the 5th(1982~1986), the 6th(1987~1991) and the 7th(1992~1996) national plan.	
defer to "Road D	evelopment in the North-Eastern Region (Phase 2) (1985)" for detail.	

(M/P+F/S)

Compiled Mar.1986 **ASE** THA/S 204B/83 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Development Pr	roject of the Ind	ustrial Port on t	he Eastern Seaboard			
3.	SECTOR	Transportation	/ P	ort		4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Industrial Estat	e Authority of	Thailand, Port Authori	ity of T	Γhailand	
	PRESENT COUNTERPART AGENCY							
6.	OBJECTIVES OF THE STUDY		Establishing the Master Plan for Maptaput Port as an Industrial Port and feasibility study of the priority projects.					
7.	CONSULTANT(S)		The Overseas Coastal Area Development Institute KOKUSAI KOGYO CO., LTD.					
8.	STUDY PERIOD	Jul.1982 ~ ~	Nov.1983	16month(s)				
9.	SITE OR AREA	Coastal Area, I	ayon Province					

#### 10. MAJOR PROPOSED PROJECT(S)

<M/P>Development of Layon Province, Composed of Industrial Base, Port,

Residential Area. The target year of the M/P is 2000.

1)Industrial Development: Gas separation plant, Soda ash plant, Petro chemical complex, Fertilizer complex, Iron & steel complex,

Supporting industries, Down stream industries, Other industries.

2)Port development: Amount of cargo handled 23 million tons annually, 45 berths, total length 5,750m.

3) Urban Plan: New town 575ha, Population 71,500

Number of household 17,340

4)Infrastructure: Road, Water supply, Sewerage, Waste treatment,

Railway(branch of the Chachoengsao - Sattaship line. length 25km, annual traffic volume transported 3.7 million tons)

Electricity(total demand 1,354MW) Telephone(number of lines 10,000)

Telex/Telegram, terminals and other services 44

<F/S>1)Industrial Development:

petorochemical, fertilizer, soda ash, various supporting industries, industrial estate Area 410ha, Quay wall 820m

2)Port Development: Quay-wall 850m, wharf 280m, breakwater 3,000m

total length of berths 1,750mamount of cargo handled 4 million tons annually

3)Urban Development: Area 131ha, population 18,300 Number of Household 4,360

4)Infrastructure: Road, Water Supply, Sewerage, Waste treatment, Railway(Extension 24km, annual traffic volume transported 2 million tons),

Electricity(total demand 133.5MW), Telephone(number of lines 3,000) Telex/Telegram terminals and other services(23)

ASE THA/S 204B/83 M/P+F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

#### Subsequent Studies:

Sep.1983 L/A 1,720 mil.Yen (East coast Development E/S)\*1 Oct.1985 D/D on Map Ta Phut Industrial Port completed

Jan.1986 D/D on Map Ta Phut Industrial Estate completed

#### Finance

Sep.1984 L/A 5,611 mil.Yen (Map Ta Phut Port Project)\*2 Oct 1985 L/A 16,045 mil.Yen(Map Ta Phut Port Project II)\*3

3,207 mil. Yen (Industrial/Urban ComplexProject)\*4

Sep.1988 L/A 3,002 mil. Yen(Sattahip-Map Ta Phud Railway Project)\*5

Nov.1988 L/A 1,459 mil.Yen(Map Ta Phud-Sattahip Water Pipeline Project)\*6

Sep.1991 L/A 3,395 mil. Yen (Map Ta Phut Port Project III)\*7

\*Components of Project

- \*1-Improvement on port, industrial estate, railway, water pipeline at Map Ta Phud and Laem Chabang (loan for E/S of Map Ta Phud Industrial Port, industrial estate, Laem Chabang Port and Sattahip-Rayon railway.)
- \*2,\*3-Construction of Map Ta Phud Industrial Port (loan for dredging, reclamation and supervision)
- \*4-Construction of infrastructure (road, watersupply, drainage, power transmission) in Map Ta Phud industrial estate and urban area.
- \*5-Construction of single track connecting Map Ta Phud Port, Chachansao and Cao Si Chang Station (24km), signal, lightning system, management building, drainage facility.
- ${\rm *6\text{-}Construction}$  of water pipeline between Map Ta Phud and Sattahip

(length 22.9km, diameter 700~900mm) and related facilities.

(loan for equipmet, civil engineering work, supervision)

\*7-Purchase of vessels and port machineries

#### Construction:

Dec.1987 Map Ta Phud industrial estate. Construction started.

1989 Map Ta Phud industrial Port. Construction stared, to be completed in 1992.

1990 Map Ta Phud industrial estate. 1st Phase completed

1991 Map Ta Phud industrial estate. 2nd Phase started, to be completed in 1992.

#### (FY1995 Overseas Survey)

Four(4) million tons of cargo could be handled in Laem-Chabang Port in 1995.

**(F/S)** 

Compiled Mar.1990

AS	SE THA/A 3	08/83	Revised	Mar.2008
1.	COUNTRY	Thailand		
2.	NAME OF STUDY	Mae Chang Irrigation Project		
3. 5.	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S RID (Royal Irrigation Department), Ministry of Agriculture and Cooperatives		
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
		Feasibility study of the irrigation plan in Mae Chang area through the construction of a water storage da	ım	
6.	OBJECTIVES OF THE STUDY			
7.	CONSULTANT(S)	Sanyu Consultants Inc. Taiyo Consultants Co., Ltd.		
8.	STUDY PERIOD	Jan.1983 ~ Jan.1984 12month(s) ~		
	SITE OR AREA  MAJOR PROPOSED PR	OJECT(S)		
Bei Ma	neficial Area: 8,095ha (I jor Facilities: orage dam 1 site (total st	Right bank area, 6,006ha, Left bank area 2,089ha)		
M	version dam 1 site (total	storage capacity 7 MCM, Dam volume ombination type) rete lined canal)		
Oth	ers: Drainage canal 7.0 Small-scale hydro	km, Onfarm facilities -power generation(164kw)		

ASE THA/A 308/83 F/S

PRESENT STATUS	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
Description :		

Reasons for Project Cancellation:

Lowered prioeity due to the change in the agricultural policy

The reservoir for the thermal-power generation was constructed after 1985 at the upperstream of the proposed dam site. As a result, no water source is now available for this project.

(F/S) Compiled Mar.1990				
SE THA/S 3			Mar.2008	
COUNTRY	Thailand			
NAME OF STUDY	East Coast Water Resources Development (Phase II)			
SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S Royal Irrigation and Drainage Dept.			
II				
PRESENT COUNTERPA	ART AGENCY			
	Feasibility analysis of three dams			
OBJECTIVES OF THE STUDY				
CONSULTANT(S)	Nippon Koei Co., Ltd. NIKKEN Consultants, Inc.			
STUDY PERIOD	Jul.1982 ~ Mar.1983 8month(s)			
SITE OR AREA	Eastern seaboard (Rayong and Chonburi changwats)			
MATOR PROPOSED PRO	DOIECTES)			
1) Khlong Luang: (a)Multi-purpose dam (h.42.5.m); (b)canal connecting the dam and Chonburi; (c) irrigation and drainage (6,600ha) 2) Khlong Yai: (a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha) 3) Khlong Thap Ma:				
	28.9m); (b)irrigation and drainage			
	COUNTRY NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERP  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PI Khlong Luang: a)Multi-purpose dam (h. Khlong Yai: a)Multi-purpose dam (h. Khlong Thap Ma:	THA/S 310/83  COUNTRY    Thailand     East Coast Water Resources Development (Phase II)     SECTOR   Social Infrastructure	THAI/S 310/83  TOUNTRY NAME OF STUDY  SECTOR  SOCIAL Infrastructure  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  PRESENT COUNTERPART AGENCY  SUBJECTIVES OF THE STUDY  OBJECTIVES OF THE STUDY  AND AND PROPOSED PROJECTIS  SITE OR AREA  MAJOR PROPOSED PROJECTIS  Khlong Tange:  a)Multi-purpose dam (h.42.5.m); (b)canal connecting the dam and Chonburi; (c) irrigation and drainage (6,600ha)  Khlong Yang: a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha)  Khlong Yang: a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha)  Khlong Yang: a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha)  Khlong Tange: a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha)  Khlong Tange: a)Multi-purpose dam (h.50.8m); (b)canal connecting Nong Pla Lai Dam and Nong Kho Dam; (c) irrigation and drainage (7,700ha)	

ASE THA/S 310/83 F/S

PRESENT STATUS	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(1) Khlong Yai

Subsequent studies:

Feb.1990 L/A 204 mil. Yen for (E/S)

Finance

Jan. 1993 L/A 6,362 mil. Yen for the construction of the pipelines connecting Nong Pla Lai reservoir and Nong Kho reservoir.

Construction:

(FY 1991 Overseas Survey)

Scheduled to be commenced after the completion of the Nong Pla Lai Dam.

(FY 1997 Overseas Survey)

The pipeline is being constructed by Public Works Department, not RID.

(2) Khlong Luang and Khlong Thap Ma

(FY 1991 Overseas Survey)

The project has been suspended due to the problems concerning the resettlement of the residents.

(F/S)

Compiled Mar.1986

**ASE** THA/S 311/83 Revised Mar.2008 1. COUNTRY Thailand Nong Kho - Leam Chabang Water Pipeline Project 2. NAME OF STUDY 3. SECTOR Public Utilities / Water Supply TYPE OF STUDY F/S 5. Public Works Dept., Ministry of Interior COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY To formulate a plan for the pipeline system from the Nong Kho dam to the Laem Chabang and to verify the feasibility of the project. OBJECTIVES OF THE STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) NIKKEN Consultants, Inc. Aug.1983 Mar.1984 7month(s) 8. STUDY PERIOD Chonburi 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) First Stage Second Stage Nong Kho-Turnout Turnout-Receiving Well Nong Kho Turnout Turnout-Receiving Well 1.Raw Water Pipeline Diameter of pipe 1,000mm 900mm 1,000mm 900mm Length of pipe 10.95km 3.49km 10.95km 3.49km Expected completion year 1988 1988 1994 1994 2.Turnout Delivery pipe 250mm Slice pipe 2 units 3.Aqueduct(pipe-beam) Net span 27.5m 27.5 Diameter of pipe 900 900 4.Receiving Well Dimension(WxHxL)(m) 6.3x4.4x16.4 6.3x4.4x16.4

ノンコー・ラムチャバン送水パイプライン建設計画

ASE THA/S 311/83 F/S

	Completed or In Progress	Promoting
DDECENIE GELATING	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

Factors of realizing the projects are as follows:

- 1) Large impact: the industrial development at the Laem Chabang area is dependent on this project;
- 2) Close linkage with other projects: development in Laem Chabang and the source of water;
- 3) High priority; and
- 4) Strength of the executing agency: strong support by NESDB.

#### <Stage I>

Subsequent studies:

Aug.1985~May.1986 D/D

Consulting Firm / TEAM, Sanyu

Sep.1984 L/A 144 mil. Yen for E/S

Finance:

Oct.1985 L/A 1,363 mil.Yen for the construction of (1) raw water pipeline (15km), (2) diversion facility, (3) water supply control facility and (4) raw water well.

Construction:

Jul.1986 Commenced

Jan.1989 Completed

Contractor / Italian - Thai Co., Ltd.

#### Maintenance & Operation:

East Water Company (a private enterprise with 100% investment from PWA) is in charge of maintenance & operation.

## Effect:

This project contributes to the development of the Leam Chabang Industiral Housing and of the port.

#### <Stage II>

Finance:

Government budget (Annual budget 200 mil. Bahts)

(FY 1995 Overseas Survey)

Construction

Jun.1998 to be completed (97% finished) (FY 1997 Overseas Survey)

#### Detail:

(FY 1995 Overseas Survey)

To overcome the water shortage problem in Pataya, the Thai Government constructed water pipelines from Leam Chabang to Pataya with the own fund. This project has been managed by the East Water Resources Development & Management Co., Ltd. since 1993. The company is a public enterprise owned by PWA but in future its stock will be sold to the private sector.

(F/S)

			$(\mathbf{\Gamma}/\mathbf{S})$	Compiled	Mar.1986
AS	SE THA/S 3	312/83			Mar.2008
1.		Thailand			
			xpressway System in the Greater Bangkok		
<b>2.</b>	NAME OF STUDY				
	SECTOR	Transportation	/ Road <b>4. TYPE OF STUDY</b> F/S		-
5.			Expressway and Rapid Transit Authority(ETA)		
	COUNTERPART AGEN TIME OF DEVELOPME				
	PRESENT COUNTERPA	ART AGENCY			
		Road planning			
6.	OBJECTIVES OF THE STUDY				
7.	CONSULTANT(S)	Pacific Consulta	ants International		
8.	STUDY PERIOD	May.1982 ~	Nov.1983 18month(s)		
		Greater Bangko	de		
		Greater Bangko	IX.		
9.	SITE OR AREA				
	MAJOR PROPOSED PR	ROJECT(S)			
	ll highway: 27.9 km				
			attana to an interchange at Bang Khlo: 19.2 km		
			e at Phaya Thai to Sri Nakaim Road: 8.7 km		
-To	ll elevated expressway (	Total length: 31.8	Bkm)		
Th	e project cost is 26,200 r	million bahts.			

ASE THA/S 312/83 F/S

PRESENT STATUS

Completed
Completed
Partially Completed
Partially Completed
Implementing
Processing
Discontinued or Cancelled

### Description:

Subsequent study:

(FY 1997 Overseas Survey) Jan.1986~1987 D/D, EIA

Consultant / Consortium of five consulting firms, represented by National Engineering Co. Inc.

Study Cost / 23.8mil. Bahts

In September, 1988, ETA decided to implement the project with BOT and to make a contract with Bangkok Expressway Consortium. In December of the same year, ETA concluded a contract with Bangkok Expressway Limited to implement "the Second Expressway Project in Bangkok". To relieve the traffic congestion more effectively, a route adjustment was proposed, which would result in making the total length of the expressway 39km.

The following table shows the plan proposed by this F/S and the actual implemented project.

 Study Plan
 Project

 Length
 27.9km
 39.05km

 Expense
 26,200 mil.Bahts
 29,500 mil.Bahts

 Construction Period
 1986-1995
 1989-1995

 Finance
 Government Budget Loan from
 BOT

the facilities will be handed over to ETA

Finance:

(FY 1997 Overseas Survey)

Government budge (approved in Dec.1988) Land acquisition cost / 31,300mil.Bahts

BOT

Construction Cost /approx. 28,000mil.Bahts

(FY 1997 Overseas Survey)

Sector A ---- Ratchadapisek Road - Phaya Thai Interchange - Rama IX Road 12.4km

Sector B ---- Phaya Thai Interchange Bang Khlo 9.4km, and another 2km of the Collector / distributor road

Sector C ---- Ratchadapisek Road - Cheang Wattana Road 8km

Sector D ---- Rama IX - Srinakarin Road 8km

Work Progress

Sector A ---- Sep.1993 completed Sector B ---- Oct.1996 completed Sector C ---- Sep.1993 completed

Sector D and Collector / Distributor road will be completed in Oct.2000.

### (FY 1996 Domestic Survey)

Most of the project components have been already turned over to the investor and have been fairly well operated. The traffic congestion is the biggest problem which the city of Bangkok is facing now. The implementation of this project is of use to mitigate such traffic congestion.

		Compiled	Mar.1990
ASE	THA/S 103/84	Revised	Mar.2008

1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Sub-Regional Development of the Upper Southern Part					
	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY M/P					
5.	COUNTERPART AGENTIME OF DEVELOPME PRESENT COUNTERPA	NT STUDY					
		Formulation of a regional development plan through 2000					
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	International Development Center of Japan Pacific Consultants International					
8.	STUDY PERIOD	Mar.1983 ~ Mar.1985 24month(s)					
	Upper part of the Southern Region (pop.1.1 million)  9. SITE OR AREA						
10.	MAJOR PROPOSED PR	OJECT(S)					
1) S 2) H 3) H 4) S 5) H 6) H 7) S 8) Q 9) T	The study proposed 10 high priority projects at the total cost of 24,272 million baht.  1) Surat Thani Industrial Estate  2) Phuket Airport Industrial Estate and Export Processing Zone  3) East-West Link  4) Surat Thani International Port (Khanom Deep-sea Port)  5) Krabi Oil Refinery and Pipeline  6) Phuket Urban Development  7) Surat Thani Urban Development  8) Central Lowland Development  9) Tapi-Phum Duang River Management  10) Phuket Water Supply						
Not	te: The cost shown above	pertains to the ten high priority projects.					

ASE THA/S 103/84 M/P

PRESENT STATUS
Delayed
Discontinued

### **Description:**

After the completion of this study, ADB conducted the review study of ten high priority projects and confirmed their validity.

#### (1)Surat Thani Industrial Estate

(FY 1996 Overseas Survey)

The Industrial Estate Authority has already done F/S and EIA. The cabinet approved the implementation of the first phase of the project including the allocation of government budget of 625 mil.baht to the development of the utilities system of the project.

Implementing Period:1997~2000

(2) Phuket Airport Industrial Estate and Export Processing Zone

(3)East- West Link

With the technical assistance of JICA, the study on the road network in the Southern Thailand, which targeted East- West Link, was implemented by 1991.

(FY 1996 Overseas Survey)

 $Presently, D/D \ has been implemented for the construction of highway with 100 \ meters wide and 195 \ km \ long \ according to the cabinet resolution on June 14,1996.$ 

Implementing Period:1997~2000

Project Cost:9,000 mil.Bahts

(4)Khanom Deep-Sea Port(FY 1996 Overseas Survey)

It is planned to implement a F/S on environment, engineering and business from the beginning of 1997 over one year. 1999~2001 Construction schedule.

Project Cost:5,659 mil.Bahts

Subsequent Study:

(FY 1997 Overseas Survey)

Jul.1997~Mar.1998 F/S (EIA included)

\*Contents

Port configuration, traffic forecast etc.

Implementing Organization / NESDB

Consulting Firm / Moffatt & Nichol Int. Inc, AEC, Wilbur Smith Associates

Study Cost / 1mil.US\$

Difference with JICA's proposal:

Move the site from Kabi to Phangnga for the west coast and from Khanom to Sichon for the east coast.

(5)Krabi Oil Refinery and Pipeline

(FY 1994 Domestic Survey)

The refinery is planned to be constructed in Kanom, not in Krabi as proposed in this study. Also, crude oil will be transported through pipelines, not refined oil proposed here.

(6)Phuket Urban Development

With the technical assistance of JICA, the study on development in the Southern Thailand was implemented by 1989, in which the tourism promotion in Phuket, proposed in this study, was focused.

(7)Surat Thani Urban Development

(FY 1994 Domestic Survey)

Surat Thani was designated as one of the targeted cities where the intensive investment was made to improve the social infrastructure.

(8)Central Lowland Development

The private enterprises have been active in the Central Lowland Development.

(9)Tapi-Phum Duang River Management

The Electricity Generating Authority has been in preparation for the construction of the Kaen Krung Dam proposed in the Tapi-phum Duang River Management Project. However, the problem concerning the resettlment of the residents remains unsettled.

(10)Phuket Water Supply

(FY 1996 Overseas Survey)

RID is implementing F/S. It is expected the first phase of the study of the water resource will be completed in Jan. 1997.

### Detail:

In 1989 The Southern Seaboard Development Committee was organized, represented by the Prime Minister.

(FY 1993 Overseas Survey)

The project of East- West link and of the Oil Refinery and Pipeline has been accommodated into the present Land Bridge Program.

(FY 1997 Overseas Survey)

F/S on the Southern Seaboard Port and Industrial Complex Development will be carried out.

Finance:

Government budget 12.5mil.Bahts

Jun.2.1997 USTDA grant 0.5mil.US\$

(M/P+F/S)

Compiled Mar.1988 **ASE** THA/S 205B/84 Revised Mar.2008

1.	COUNTRY	Thailand
2.	NAME OF STUDY	Development Project of Leam Chabang Coastal Area
3.	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERPA	RT AGENCY
6.	OBJECTIVES OF THE STUDY	Formulation of a master plan (target year 2000) for the development of Laem Chabang Area and feasibility analysis of the hort-term plan (target year 1987)
7.	CONSULTANT(S)	Vippon Koei Co., Ltd.
8.	STUDY PERIOD	an.1984 ~ Mar.1985 14month(s) ~
	SITE OR AREA	Laem Chabang (120km southeast of Bangkok)
10.	MAJOR PROPOSED PR	JECT(S)

### 10. MAJOR PROPOSED PROJECT(S)

<M/P> 1) Industrial Development

2) Port Development: 16 berths, domestic wharf 1,100m, wharf area 258ha

length of breakwater 3,070m

- 3) Urban Development: New town population 120,000, Area 930ha
- 4) Transportation Planning
- 5) Utility Development

Water supply, sewerage system, drainage system, solid waste disposal, power supply system(2 substations)

telecommunication system (number of telephones 13,764, number of telex terminals 64)

land preparation plan (land fill 3 million cu.m)

- \* The project cost 1) above is for a short-term plan and 2) is for a long-term plan.
- <F/S>Major components of the short-term development plan:
- 1) Industrial Development: Industrial estate 219ha
- 2) Port Development: 6 berths, domestic wharf 280m, land area 116ha

length of breakwater 2,400m

- 3) Urban Development: New town population 24,000, area 130ha
- 4) Transportation Development
- 5) Utility Development: Water supply, sewerage system, drainage system solid waste disposal, power generation(88.5MW)

telephone lines(3,000), telex terminal(32)

land preparation plan(land fill 2.6 million cu.m)

Note: EIRR and FIRR1)bellow are for the industrial estate, and 2)FIRR for the housing estate.

ASE THA/S 205B/84 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

1)Large impact: employment creation, increased foreign exchange, transfer of technology, 2)High priority: one of the major projects to be implemented during the 5th development plan, 3)close linkage with other projects, 4) Strength of the executing Agency

#### Finance

Sep.1984 L/A (Laem Chabang Port Project, 4,172 mil.Yen)\*1

Oct.1985 L/A (Laem Chabang Industrial Estate Project, 2,922 mil.Yen)\*2

Nov.1986 L/A (Laem Chabang Port Project (II), 12,283 mil.Yen)\*3

Sep.1987 L/A (Laem Chabang Industrial Estate Project (II), 3,003 mil.Yen)\*4

Sep.1988 L/A (Siracha-Laem Chabang Railway Project, 1,013 mil.Yen)\*5

Feb.1990 L/A (Laem Chabang Port project (III), 6,436 mil.Yen)\*6

### \*Contents of OECF loan

\*2,\*4-1)Civil engineering, construction of road, bridge, water supply and drainage facilities.

-2)Construction of sewage plant Loan for 1), all foreign currency and a part of domestic currency of 2) and supervision

\*1,\*3-Construction of Laem Chabang Port Loan for dredging, reclamation and supervision.

\*6-1)Container crane (6)

2)Vessels (11)

3) Navigation Support Facilities

Loan for foreign currency.

\*5-Single track between Laem Chabang Port and Siracha Station (9.3km), signal, lighting facilities, management building, drainage facilities.

Loan for foreign currency.

### Construction:

1988~1991

<M/P>

-First Stage of New Town (16ha residential tone, 2,284 units) has been completed. Present population is 11,420. Second stage (8ha) is under preparation.

-Public Utilities to accommodate new housing development have been completed.

<F/S>

Works have been completed as scheduled.

(F/S)

Compiled Mar.1990

ASE THA/A 309/84 Revised Mar.2008 COUNTRY Thailand Lower Northeast Medium Scale Irrigation Package Project 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General TYPE OF STUDY F/S Agriculture 5. RID (Royal Irrigation Department), Ministry of Agriculture and Cooperatives COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Integrated agricultural development through the construction of a medium-size dam for irrigation and drinking water. OBJECTIVES OF THE STUDY Sanyu Consultants Inc. 7. CONSULTANT(S) Naigai Engineering Co., Ltd. KOKUSAI KOGYO CO., LTD. Feb.1983 Jul.1984 17month(s) 8. STUDY PERIOD NakhonRatchasima and BuriRam Provinces, northeastern part of Thailand 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Lam Plai Mat Nong Lam Puk Huai Phlu 700 Irrigation area 9,100 300 Dam height 44.6m 12.0m 20m pondage 90 MCM 4 MCM 6 MCM Diversion weir 1 site 29km Canal irrigation 215km 13km drainage 45km 1km

東北タイ南部中規模かんがいパッケージプロジェクト

ASE THA/A 309/84 F/S

Completed or In Progress Promoting

Completed
PRESENT STATUS
Partially Completed
Delayed or Suspended
Implementing
Processing
Discontinued or Cancelled

### **Description:**

(1) Lam Plai Mat

1. Construction of Dam

Subsequent studies:

D/D (government budget)

Finance:

Government budget 325 mil.Bahts

Construction:

1987-1991 Implemented and completed. Small-scale dams in the project area and the adjacent area have been constructed with the government budget since 1990.

### 2.Irrigation Canals

Finance:

Phase I (1992-1993) 90 mil. Bahts

Phase II (1994/1995) 60 mil. Bahts each year

 (1996)
 39.77 mil.
 Bahts

 Designing Work, etc.
 40.23 mil.
 Bahts

 Total
 290.00 mil.
 Bahts

### Construction:

1992~1996 Completed

In the initial plan, the canal construction was planned to be divided into two phases. However, it was implemented at a time.

The 63km-long canal and the axillary faciltiies were completed.

Maintenance & Operation:

RID is in charge of M&O.

Impacts for surrounding area:

Standard of living has improved by reduction of flood and stable water supply.

(2) Nonga Lam Puk (Name was changed to Huai Bug)

Subsequent Study:

D/D (national budget)

Construction:

(FY 1997 Overseas Survey)

The downs-sized dam was constructed.

(3) Huai Phlu

Subsequent Study:

D/D (national budget)

Construction:

(FY 1997 Overseas Survey)

The downs-sized dam was constructed.

(F/S)

Compiled Mar.1988 **ASE** THA/S 313/84 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Comprehensive	Development of C	Coastal Shipping				
3.	SECTOR	Transportation	/ N	Iarine Transporta	ation & Ships	4.	TYPE OF STUDY F/S	
5.	COUNTERPART AGENO	CY AT THE	Office of the Mer	cantile Marine F	Promotion Commiss	ion, Mi	nistry of Communications	
	PRESENT COUNTERPA	RT AGENCY						
6.	OBJECTIVES OF THE	Formulation of a	a comprehensive c	levelopment plan	n for the coastal ship	oping an	nd regional ports.	
7.	CONSULTANT(S)		ternational Coope oastal Area Devel					
8.	STUDY PERIOD	Jul.1983 ~ ~	Oct.1984	15month(s)				
the entire coastal areas  9. SITE OR AREA								
10.	MAJOR PROPOSED PRO	OJECT(S)						

- 1) Present status of physical distribution and selection of major commodities for domestic shipping
- 2) Present status of the domestic shipping industry
- 3) Cargo throughputs and present facilities of regional ports
- 4) Present freight movements by transportation mode and the possibility of transfer from other modes to domestic shipping
- 5) Formulation of a development plan for the domestic shipping industry and regional ports
- 6) Economic and financial analysis of the operations of domestic shipping and regional ports

ASE THA/S 313/84 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

Reasons of Stoppage:

- -Economic recession (1985-88)
- -IFCT's attitude to the project
- -Comparative advantage of road-transport.

Some legislative improvement is necessary for reviewing the operation of domestic shipping companies.

Situation before Stoppage: (FY 1991 Overseas Survey)

Office of the Mercantile Marine Promotion Commission (OMPC) has requested the Industrial Finance Corporation (IFCT) of Thailand to negotiate with the OECF. The Ministry of Transport and Communications has requested for the JICA project review.

### Others:

A short-term expert (2 months) was sent in 1985 and 1986 to give advice on the legislation on domestic shipping and its promotion. (FY1995 Overseas Survey)

Liner service has not been established in Coastal shipping. New Line of Liner service is expected to be established from Bangkok to Chun-Pon through Laem Chabang.(Construction cost of Chun-Pon port: 10 mil.B)

**(F/S)** 

Compiled Mar.1988 ASE
1. COUNTRY THA/S 314/84 Revised Mar.2008 Thailand

2.	NAME OF STUDY	Track Elevation Project of Existing Railway Lines in the Bangkok Metropolitan Area				
3.	SECTOR	Transportation / Railway 4. TYPE OF STUDY F/S	-			
5.		State Railway of Thailand				
	COUNTERPART AGEN TIME OF DEVELOPME					
	PRESENT COUNTERPA					
6.	OBJECTIVES OF THE STUDY	Increasing the efficiency and ensuring the safety of train operation and elimination of traffic congestion at level crossings.				
7.	CONSULTANT(S)	Japan Railway Technical Service				
8.	STUDY PERIOD	Aug.1983 ~ Jul.1984 11month(s) ~				
9.	SITE OR AREA	Entire Bangkok Metropolitan Area				
Civ Lan Ele Rol	d procurement US ctric facilities US ling stock US	\$ 125 million \$ 2000 million \$ 30.9 million \$ 68.6 million				
-Ba	angkok Station - Bang Su	tion - Makkasan Station } 13 km				

ASE THA/S 314/84 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

Reasons of Stoppage/Cancellation:

The project was implemented in tatally different way from the proposal.

### Situation before Stoppage:

The State Railway of Thailand and the Ministry of Communications decided to implement the track elevation by the BOT system. SRT invited the private sector application in December 1988, but received no response. By offering better access to the SRT-owned land, the invitation was announced again in October 1989. In November 1990, SRT signed the contract of 80 billion bahts (about 400 billion yen) with HOPEWELL of Hong Kong.

In December 1991, the HOPEWELL Company decides to carry on this project, therefore, it can be expected that the construction of track elevation together with community train and freeway for the first phase along the Yommaraj-Donmaung section for a distance of 18.8km shall be finished in year 1995.

#### (FY1991 Overseas Survey)

The project scale was enlarged to 60.1 km consisting of north-south and east-west lines with a budget of 60 billion bahts. The construction will be from 1993 to 1996.

#### (FY1994 Domestic Survey)

The construction works of HOPEWELL Project on the "L" shaped route from Yammarat toward north and east have been started. Cast-in-place pile works are in progress. The construction is delayed about two and a half years now. As for the sections toward west and Maeklong which cross the Chao Phraya River construction works are not commenced yet.

### (FY1995 Overseas Survey)

Hopewell project is completely different in scale and concept from the project proposed by this development study, therefore the study should be actually considered cancelled. The construction started in 1992 by Hopewell, with a construction period of 8 years, an estimated cost of 80 billion bahts. No land acquision shall be necessary to implement the project. However the construction work seems to be much delayed.

(Other Studies) Com	piled	Mar.1988
Pay	cod.	Mar 2008

AS	SE THA/S 601/8	84				Revised	Mar.2008
	COUNTRY	Thailand					
2.	NAME OF STUDY	Traffic Safety P	lan for Roads	-			
3.	SECTOR	Transportation	/ (Transportation in) General	4.	TYPE OF STUDY	Other Studies	
5.			Dept. of Highways, Ministry of Communications				
	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY						
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY						
		Central Consult					
7.	CONSULTANT(S)	International En Chodai Co., Ltd	gineering Consultants Association				
8.	STUDY PERIOD	May.1983 ~	Dec.1984 19month(s)				
		]	Entire country				
9.	SITE OR AREA						
	MAJOR PROPOSED PR						
(1) (2) (3) (4)	Collection and analysis of Identification of high-ris Guidelines of physical facily Planning of physical facily Medium- and long-term	of road traffic dat k areas acilities llities					

ASE THA/S 601/84 Other Studies

In Progress or In Use

PRESENT STATUS
Delayed
Discontinued

### **Description:**

Utilizing the guid lines formulated by the study mission, the counterpart agency has increased the budget for the Department of Highways in order to improve the facilities for the road safety.

### (FY 1991 Overseas Survey)

The study results were utilized to prepare a loan application to the World Bank in order to implement the Sixth National Economic and Social Development Plan, which was approved.

#### (FY 1993 Overseas Survey)

DOH has been utilizing the recommendations made by this M/P to implement the Traffic Safety Master Plan since 1987. Also, the guideline for the traffic safety program has been effectively utilized.

### (FY 1995 Overseas Survey)

The proposed projects were integrated in the Seventh Five-Year Plan and were implemented. In particular, the progress was observed in the data collection and its analysis with computers.

### (FY 1997 Domestic Survey)

Extension works of highway and construction of orbital transport system are going on. Revision of project will be needed after the completion of those works.

(M/P+F/S)

Compiled Mar.1988 **ASE** THA/S 206B/85 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Master Plan on I	ter Plan on Flood Protection/Drainage Project in the Eastern Suburban Bangkok					
3.	SECTOR	Social Infrastruc	ture / I	River & Erosion	Control	4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGENTIME OF DEVELOPME	CY AT THE			e, Bangkok Metro			
	PRESENT COUNTERPA	ART AGENCY						
6.	OBJECTIVES OF THE	To evlauate the	feasibility of b	uilding the drain	age facilities			
		Pacific Consulta	unts Internation	al				
7.	CONSULTANT(S)	Tokyo Engineer	ing Consultant	s Co., Ltd.				
8.	STUDY PERIOD	May.1983 ~	Feb.1986	33month(s)				
9.	SITE OR AREA	Eastern Suburba East suburban a			q.km) <m p=""> 00 sq.km)<f s=""></f></m>			
10.	MAJOR PROPOSED PR	OJECT(S)						

<M/P>

The project aims to protect the area of 260 sq.km from floods coming from outer areas by construction of polder dykes and drain internal storm water by providing adequate drainage facilities. The proposed measures are as follows. (Structural measures)

- Polder dyke (62km), gate (55 places), pump station (10 places), channel improvement (133km), drain pipe (110km) (Non-structural measures)
- Land use regulation, provision of storm retarding basin, establishment of flood forecasting and warning system

<F/S>

Facilities Scale 5.1 kmDyke(Barrier) Sluice gate 4 places

**Pumping Station** 5 stations(36 cu.m/s)

Klong improvement 93 km Main drain improvement 4.3 kmFlood control operation center 1 set

ASE THA/S 206B/85 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Promoting

Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

### **Description:**

(1) Donation of Materials

Upon the completion of the study, 59 pumps were donated with the Japanese grant aid.

(2) Flood Control Center in Bangkok

Subsequent Studies:

Jun.1988 B/D

Finance:

Jan.1989 Grant Aid E/N 924 mil.Yen

Construction:

Mar.1991 Completed

(3) Pumping Station, Sluice Gate and Klong Improvement

(FY 1996 Overseas Survey)

Subsequent Studies:

1987~1990 D/D (DDS Budget)

Finance:

1988~1991 500mil.Bahts (DDS Budget)

Construction:

1988~1991 Completed

Maintenance & Operation:

DDS is in charge.

(4)Drainage System Improvement

(FY 1997 Overseas Survey)

Subsequent Study:

1995~1996 F/S, D/D

Consulting Company / NEDECO, SPAN, WDC (joint)

Cost / 80mil.Bahts

\*Contents of study (including up-date of JICA'S study)

Klong improvement, pumping station improvement, operation of storage reservoir, secondary drainage system improvement

Finance:

FY 1997 BMA budget 1,300mil.Bahts (1st Stage)

Total budget / 33,000mil.Bahts

Construction:

1997~1999

Consultant, Contractor / local

(5)Other Project

(FY 1996 Overses Survey)

Due to the financial constraints, the project has been yet implemented. However, with the increase of budgets, the implementation of subsequent studies is planned in 2005

**(F/S)** 

Compiled Mar.1990

COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE	re in) General  4. TYPE OF STUDY F/S
3. SECTOR Agriculture / (Agricultur 5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE	re in) General  4. TYPE OF STUDY F/S
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE	
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE	
PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE	
OBJECTIVES OF THE	
o. STUDY	
7. CONSULTANT(S) Overseas Merchandise Inspection Co., Ltd. Sanyu Consultants Inc.	
8. STUDY PERIOD Feb.1984 ~ Jun.1985 16month ~	h(s)
9. SITE OR AREA  10. MAJOR PROPOSED PROJECT(S)  1. Warehouse construction:     State level - 10 sites     Local level - 5 sites     Seaport Warehouse - 1 site at Laem Chabang  2. Improvement on processing and loading facilities for shipping exporta     River port - 2 sites (Nonthaburi, Rajburana)     Deep sea port - 1 site (Laem Chabang)  3. Grain reprocessing facility: 6 sites  4. Storage technology improvement and training center construction: 1 sites	
* Project costs above are in Dec.1984 prices.	

ASE THA/A 310/85 F/S

	Completed or In Progress	Promoting	
	Completed		
PRESENT STATUS	Partially Completed	Delayed or Suspended	
	Implementing		
	Processing	Discontinued or Cancelled	

### **Description:**

Reasons of Stoppage:

Many government agencies joined rice export programme. It lowered PWO's rank as a rice exporter. (FY 1993 Overseas Survey)

Situation before Stoppage:

In 1986, Thai Government drastically revised the rice marketing policy and abolished the conventional government procurement at support prices. As a result, the operational scale of Public Warehouse Organization (PWO) was radically reduced. On the other hand, the government has been implementing the development of the port at Laem Chabang and planned to construct integrated facilities for collecting, processing and exporting agricultural products in the area behind the port. The government at one time considered the possibility of including the loading facilities for export rice in the area, but the idea was not materialized.

The rice exports have long been made from the river ports in Bangkok city, and the construction of modern facilities are underway by private companies.

The exports of Thai rice reached 5.7 million tons in 1989. Further rationalization of rice marketing and modernization of marketing facilities are strongly desired by both the government and private organization.

(F/S)

SE THA/A 3	311/85	,	Revised			
COUNTRY	Thailand		revised	17141.2000		
NAME OF STUDY	Sakae Krang Ri	ver Basin Irrigation Project				
SECTOR	Agriculture		)			
5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY						
PRESENT COUNTERPA	ART AGENCY					
OBJECTIVES OF THE STUDY						
CONSULTANT(S)	Kyowa Enginee	ring Consultants Co., Ltd.				
STUDY PERIOD	Sep.1984 ~	Mar.1986 18month(s)				
9. SITE OR AREA						
Mae Wong irrigation scheme was selected as a result of M/P and Pre-F/S.  1.Irrigation area : 46,700ha  2.Water source : Mae Wong river  3.Upper Mae Wong dam : Rock-fill type  Height 57m, Crest Length 794m  4.Irrigation Facilities: Intake weir 2 sites  Main canal 76.7 km  Secondary canal 285.2 km						
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PR  We Wong irrigation schemering area : 46,700 Vater source : Mae volume and the second present and the s	COUNTRY NAME OF STUDY  SECTOR  Agriculture  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Irrigation of Sak Pre-F/S and M/F  OBJECTIVES OF THE STUDY  Nippon Koei Co Kyowa Engineer Nippon Giken Ir Sep.1984 ~  STUDY PERIOD  Sep.1984 ~  STUDY PERIOD  AMAJOR PROPOSED PROJECT(S)  The Wong irrigation scheme was selected as rrigation area : 46,700ha  Vater source : Mae Wong river Juper Mae Wong dam : Rock-fill type Height 57m, Crest Length 79 rrigation Facilities: Intake weir 2 s Main canal 76.7 Secondary canal 285.2	Thailand NAME OF STUDY Sakae Krang River Basin Irrigation Project  Sakae Krang River Basin Irrigation Project  SECTOR Agriculture Agriculture (Agriculture in) General (Agriculture in) General (Agriculture in) General (Agriculture and Cooperatives)  RID (Royal Irrigation Department), Ministry of Agriculture and Cooperatives  Irrigation of Sakae Krang River Basin Pre-F/S and M/P.  OBJECTIVES OF THE STUDY  Nippon Koei Co., Ltd. Kyowa Engineering Consultants Co., Ltd. Nippon Giken Inc.  STUDY PERIOD  Sep. 1984 — Mar. 1986   18month(s)  Sakae Krang River Basin(6,300 sq.km)  Sakae Krang River Basin(6,300 sq.km)  MAJOR PROPOSED PROJECT(S)  Wong irrigation scheme was selected as a result of M/P and Pre-F/S. ririgation area: 46,700 haver source: 46,700 haver source: Mae Wong river in Fock-fill type Height 57m. Crest Length 794m rigation Facilities: Intake weir 2 sites Main canal 76.7 km Secondary canal 285.2 km Drainage canal 204.2 km	THA/A 31/85  COUNTY Thailand  Sakae Krang River Basin Irrigation Project  SECTOR Agriculture  Agriculture  Agriculture  Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Operatives)  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Operatives)  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Operatives)  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  RID (Royal Irrigation Department).  Ministry of Agriculture and Cooperatives  Riphon Agric		

サカエクラン川流域灌漑計画

ASE THA/A 311/85 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

EIA

Completed in December, 1993.

(FY 1993 Overseas Survey)

The proposed Upper Mewong dam, with the capacity of 230MCM, is classified into a large-scale project which requires EIA before its implementation. EIA on this project was conducted by the Chemgmei University.

(FY 1994 Domestic Survey)

After the completion of the study, the project site turned out to be included in a national park. Therefore, EIA was required before the commencement of the project.

Finance

RID is in preparation for the request for an OECF loan. (FY 1993 Overseas Survey)

Detail:

(FY 1994 Domestic Survey)

EIA was completed in December, 1993. OECF is planning to dispatch SAPROF survey team to update the JICA study which was conducted 10 years ago.

(FY 1996 Domestic Survey)

SAPROF was implemented by Sanyu Consultants in 1995.

(FY 1996 Overseas Survey)

Request OECF for Yen Loan

(FY 1997 Overseas FU Survey) (FY 1998 Domestic Survey)

NGOs get involved with resistance on dam construction while community is increasing and spread out over the Lower Mae Wong Dam Site area because the lower site is the land reform area. In 1996 the Joint Committee of Private and Government Sectors organized the meeting for the people in Nakhon Sawan and nearby provinces in order to get better understanding on the dam construction explained by RID.

RID re-proposed the project implementation together with the result of EIA to the government for approval and this issue has been further forwarded to the Office of Environmental Policy and Planning and the National Environmental Board respectively in order to make decision of EIA matter. After the approval of the National Environmental Board the project can be implemented.

			<b>(F/S)</b>			Compiled	Mar.1988
_	SE THA/S 3					Revised	Mar.200
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Establishment o	f a Large Repair Shipyard				
3.	SECTOR	Transportation	/ Marine Transportation & S	Ships 4.	TYPE OF STUDY F/S		
5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			Board of Investment				
	PRESENT COUNTERPA	ART AGENCY					
		Feasibility analy	rsis of a repair shipyard				
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	Overseas Ship-b	uilding Cooperation Centre				
8.	STUDY PERIOD	Jul.1984 ~	May.1985 10month(s)				
9.	SITE OR AREA	Laem Chabang					
- D - A	MAJOR PROPOSED PRoposed Proposed 175m x 28m x area of 300m x 300m = 90 area placed by the second proposed Propo	x d.11.1m	laming for ship repairing				
	y other facilities necessar	ry for shiprepairir	g.				

Time schedule: start of preparation for construction, Jan. 1986
start of Construction work, Sept. 1987
start of Operation, Jan. 1990
Completion of construction work, M ar. 1990

ASE THA/S 315/85 F/S

	Completed or In Progress	Promoting
DD ECENTE CITA IN IC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

Suspended after the completion of the study because of the low feasibility. The Government has been encouraging the private sector investment. JICA is conducting a M/P study on the shipbuilding industry, and reviewing the proposal of the study.

Private shipping company and shippard have jointly operated and going to invest shippard facilities on the basis of leasing contract of site between Port Authority of Thailand and the company.

Subsequent Study

(FY 1997 Domestic Survey)

Apr. 1991

\*Contents of the Project

Construction of dock (max. 15,000DWT) and ship yard for inland facilities.

(FY1993 Overseas Survey)

Prospective low return on investment caused the above company to discontinue the project.

At present, big ships go to Singapore for repairment.

(1)Floating Dock

(FY 1995 Overseas Survey)

Finance:

Private fund 1,500mil. Bahts

Construction:

1991~1994

The dock has capacity of repairing 80 vessels per year. In 1994, 40~50 vessels (about 600,000 DWT) have been repaired, of which the biggest one was 25,000 DWT. 8 years of Tax Holiday (normally 5 years) was given by Investment Committee as preferential treatment.

(2)Dry Dock

(FY 1995 Overseas Survey)

UNITHAI is constructing a dry dock.

(FY 1997 Overseas Survey)

Construction of a dry dock depends on market and economic situation.

**(F/S)** 

Compiled Mar.1986

A	SE THA/S 3	16/85 Revised Mar.2008
1.	COUNTRY	Thailand
	0001,1111	
2.	NAME OF STUDY	Sanitary District Water Works Project in the Northeastern Region
3.	SECTOR	Public Utilities / Water Supply 4. TYPE OF STUDY   F/S
5.		Department of Public Works,(DPW) Ministry of Interior
٥.		Department of Fuone works, (DF w) withinsuly of fine for
	COUNTERPART AGEN	CY AT THE
	TIME OF DEVELOPME	
	TIME OF DEVELOTION	AT STOD!
	PRESENT COUNTERPA	ART ACENCY
	THESELVI COCTUERED	
		Stable supply of clear water to the area.
		11.5
	OD LECTIVES OF THE	
6.	OBJECTIVES OF THE	
	STUDY	
-		Sown Consultants Inc
		Sanyu Consultants Inc.
7.	CONSULTANT(S)	
		Oct.1984 ~ Feb.1986 16month(s)
8.	STUDY PERIOD	Tellipor Tollishings
		~
		10 towns and villages in the North-Eastern region of Thailand
9.	SITE OR AREA	
	MAJOR PROPOSED PR	
The	e main purpose of the pro	pject is to provide an improved living standard for the local people through a stabilized water supply in the Sanitary District
		at of the project, it is expected that the urban activity in the areas, which would have the characteristics in-between of
		e encouraged to grow vigorously in future.
Su	mmary of the proposed p	project is tabulated as follows.
Su	b-project Name Served	Max.Capacity Major Facility
	Pupulation (cu.	
V٦	am Sake Sang 6,000	
No	ng Bua Lai 4,500	675 RSFP 1.0 unit, D.pipe 6.9lkm
Hu	ai Thalaeng 13,300	1,995 RSFP 1.0 unit, D.pipe 12.3km
	ng Ki 16,900	2,535 RSFP 1.0 unit, D.pipe 25.6km
	ai Rat 4,900	735 RSFP 1.0 unit, D.pipe 9.0km
Kh	un Han 5,000	750 RSFP 1.0 unit, D.pipe 6.7km
Ku	suman 6,200	930 ASFP 1.0 unit, D.pipe 9.2km
1	on Charoen 10,600	1,580 RSFP 1.0 unit, D.pipe 12.1km
1		
	ng Song Hong 8,600	
Hu	ai Kha Yung 4,900	735 RSFP 1.0 unit, D.pipe 13.5km
No	te: RSFP =Rapid Sand Fi	ilteration Plant, ASFT=Aeration Sand Filteration Plant
1		

東北タイ地方水道施設緊急整備計画

ASE THA/S 316/85 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

Subsequent Studies:

1992 ADB conducted the nationwide survey on the water supply in 100 sanitary districts, which included a review study of this F/S. 58 distructs are under the jurisdiction of PWD and 42 are under Public Water Authority (PWA).

Implementing Agency:

(FY 1994 Domestic Survey)

In November, 1994, the in-charge agency was changed from PWD to the Office of Urban Development of the Department of Local Administration (DOLA), Ministry of Interior.

(FY 1995 Domestic Survey)

As of August, 1995, due to the organizational restructuring of DOLA, three sections, Bureau of Local Affairs, Structure and System Development Division and Local Finance Division, are in charge of this project.

(FY 1996 Domestic Survey)

Due to the change of in-charge agency, it becomes difficult to obtain the information.

(1)PWA project

Subsequent Study:

1994 D/D

Finance:

(FY 1997 Domestic Survey)

Own fund

Construction:

(FY 1997 Domestic Survey)

Out of 10 sites, construction has completed at two sites and on going at three sites. As for remaining 5 sites, construction will be commenced successively after budget is allocated.

(2)PWD project

Subsequent Study:

(FY 1997 Overseas Survey)

1994~1997 D/D (58 Sanitary District throughout the country)

Consulting firm / local

Study Cost / 32mil.Bahts

Finance:

(FY 1997 Overseas Survey)

1994 Government budget 1,261,443,000Bahts (for D/D and construction)

Construction:

(FY 1997 Overseas Survey)

1994~1998

Consulting Firm / local

Out of 58 sites, construction has completed at 42 sites.

**(F/S)** 

Compiled Mar.1988

AS		
1.	COUNTRY	Thailand Road Development in the Northeastern Region (Phase II)
2.	NAME OF STUDY	Road Development in the Porthedistern Region (Phase II)
3.	SECTOR	Transportation / Road 4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERPA	ART AGENCY
	I	Feasibility analysis of new construction, improvement and rehabilitation of roads.
6.	OBJECTIVES OF THE STUDY	
7	CONSULTANT(S)	Katahira & Engineers International Nippon Koei Co., Ltd.
٠.	CONSCEIANT(S)	Tuppon Roci Co., Ed.
8.	STUDY PERIOD	Jun.1984 ~ Jul.1985 13month(s) ~
		Northeastern Region
	SITE OR AREA	
(1) 1 Yo 19. Son On (2) 16	A. Khong ~ J.R.2180 40m 40.7km; 5)B. Huai Koo 1km; 8)A. Selaphum ~ E in Poi Noi ~ B. Muang M g ~ A. Nong Ki 52.6km; Rehabilitation 8 routes of 5)A.Sikhui ~ A.Dan Khur B)A.Kalasin ~ B.Lum Cha	provement Total 502.1km:  5.8km; 2)A. Chonnabot ~ B. Dong Han 24.0km; 3)A. Nam Phong ~ B. Nong Tum 28.0km; 4)B. Lao(J.R.210) ~ B. Tha eng ~ A. Kumphawapi 14.2km; 6) A. Nong Han ~ A. Kumphawapi 34.3km; 7)A.Sawang Daen Din ~ A. Song Dao e.Kham Phon Sung 46.3km; 9)B. Na Suang ~ B. Na. Yia 13.6km; 10)A. Maha Chana Chai ~ A. Kho Wang 24.5km; 11)B. ak 28.4km; 12)A. Chom Phra~ B. Nong Khawao 31.1km; 13)A. Parakhon Chai ~ A. Krasang 47.1km; 14)B. Nong Pha 15)A. Si Khiu(J.R.2)~ A. Chok Chai 51.4km.  [90km]  1 Thot 19km: 17)A.Prathai ~ A.Khok Chik 10km  11 10km : 19)A.Pak Thong Chai ~ J.R.2 13km
	0)B.Nam Kong ~ A.Si Th 2)B.Wat ~ A.Kong 10km	
Tl	ne total project cost is 1,8	39.22 million bahts.
* T	he project cost 1)above is	s the economic construction costs of Improvement and New Construction Routes.

ASE THA/S 317/85 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

### Description:

(FY 1997 Domestic Survey)

The projects are being implemented based on The 8th Road Development Plan (1997~2001) with national budget and loan. National budget for 1998 has been cut by 20%, therefore government relys heavily on loan.

#### Subsequent Studies:

D/D conducted

(1)OECF

Finance:

Nov.1988 L/A 4,085 mil. Yen (Highway Sector Project)

1,008 mil.out of 4,085 mil. Yen was allocated to the construction and improvement of seven routes in North-Eastern region (235.1km) and other routes shall be constructed or renovated with the World Bank loan or the Government fund.

May 1993 L/A 2,184 mil. Yen (Highway Sector Project (II))

\*Contents/construction and renovation of one route of the provincial road and two routes of the local road.

#### (2)IBRD Project

(FY 1997 Domestic Survey)

Finance:

Feb.1988 L/A 46.48mil.Bhats

\*Contents/Expansion to two-lane of trunk roads in northern area and construction of bypass.

Implementation:

1.RT.No.1

Chiang Mai bypass completed

Lanpang-Chiang Mai under construction

2.RT.No318

Doi Saket-Chiang Lai under construction

### Situation of advance:

(FY 1997 Domestic Survey)

All the works scheduled for FY 1996 and 40% of works for FY 1997 have been completed. As for projects proposed by F/S on Highway System in Northern Area, 30% of works has been completed.

### (FY 1997 Overseas Survey)

Consturction and rehabilitation works for all sections have been completed.

<Section> <Fund/Amount> <Completed in> 1)A.Khong-J.R. DOH/30.9 1987 2)A.Chonnabot-B.Dong Han IBRD.DOH/50.1 1994

9) B.Na Suang-B.Na Yia DOH/15.0 1991

10)Mahachana Chai-A.Kho Wang

 Mahachana Chai-Yangchum Noi
 OECF/98.9
 1993.12

 11)B.Som Poi Noi-B.Muang Mak
 DOH/54.5
 1984

 12)B.Nong Khao-A.Chom Pra
 DOH/21.8
 1989

 13)A.Parakhon Chai-A.Krasang
 OECF.DOH/142.7
 1994.9

 14)B.Nong Pha Ong-A.Nong Ki
 1989
 1989

A.Lam Plai Mat-A.Nong Ki DOH/30.7 1991 15)A.Sikhiu(J.R.2)-A.Chok Chai IBRD.DOH/242.5 1993.8

### Rahabilitation

16)A.Sikhui-A.Dan Khun Thot IBRD/187.2 1993.8 17)A.Prathai-A.Khok Chik DOH/52.2 1991.2 18)A.Kalasin-B.Lamshe IBRD/75.5 1991.4 19)Pakthong Chai-J.R.2 DOH/60.9 1993.2 20)Nam Khong-Sithai DOH/134.4 1993.4 21)Chok Chai-Khonburi DOH/40.0 1991.3 22)B.Wat-A.Khong DOH/52.3 1995.2 23)Nakhon Ratchasima-A.Chok Chai DOH/60.9 1990.9

### Operation & Maintenance:

(FY 1997 Domestic Survey)

Operation and maintenance by local construction department is going without problem.

(F/S)

Compiled Mar.1990

THA/A 312/86 **ASE** Revised Mar.2008 COUNTRY Thailand Bang Nara Irrigation and Drainage Project 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General TYPE OF STUDY F/S Agriculture 5. RID (Royal Irrigation Department) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Establishment of Agricultural Development Plan for the Area of 9,100 ha in the Bang Nava river Basin. OBJECTIVES OF THE STUDY Sanyu Consultants Inc. 7. CONSULTANT(S) Japan Engineering Consultants Co., Ltd. May.1985 Jan.1987 20month(s) 8. STUDY PERIOD Bang Nara River Basin of Nava Tik Province in Southern Thailand 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) - To construct tidal gates both in Nara Tik side and Tagbai side of Bang Nara River - Pumping irrigation by utilizing planned reservoir with 9 pumping - Rehabilitation of drainage rivers flowing into Bang Nara River - To install 6 check gates to control acid water Outline of the Project Tidal Gate: Upper Gate Width 120m, Feeder Canal 750m, closme dam 220m Down stream Gate Width 24m, Feeder Canal 450m, closme dam 75m Facility to control Achid Water: 6 check gates Irrigation: 9,100ha Drainage improvement 11,490ha Project cost F/C L/C Total Tidal Gate 278 118 396 Acid Improvement Facilities 58 32 26 Irr. and Drainage Facilities 125 271 146 Consulting Service Fee 56 84 140

バンナラ川かんがい排水計画

Phisical Contingeacy

Price Erealation

Total

56

179

746

52

111

516

108

288

1,262

ASE THA/A 312/86 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

### **Description:**

(1) Bang Nara Irrigation and Drainage Project

(Construction of Tidal Gates)

Subsequent Studies:

Feb.17.1988 E/N 94 mil.Yen

Feb.~Jun.1988 D/D

Finance:

Sep.30.1988 E/N 888 mil. Yen Jul.21.1989 E/N 2,604 mil. Yen Jun. 6.1990 E/N 375 mil. Yen

Construction:

Construction Trader:Ohbayashi-Gumi

Oct.1988 Commenced Nov.1990 Completed Maintenance & Operation: RID is in charge of M&O

Effect:

The implementation of this project has turned salt water into fresh water. Consequently, the irrigation in the dry season becomes possible.

(2) Installation of Pumping Stations

Eleven pumping stations are planned to be constructed while the construction of ten pumping stations was proposed by the JICA study.

Finance:

Government fund

Construction:

1)Ku Chan station: Construction Cost-26.6 mil.Bahts.

Completed in 1996

2)Moru Bo station:Construction Cost-55.7 mil.Bahts.

Scheduled to be completed by Sep. 1997

3)PmKorp Daeng:Sep.1997 contract was signed.

Construction is scheduled to start.

 $\label{thm:continuous} \mbox{4)Others:Land aquisition problem remains unsettled.}$ 

\*Presently approximately 18,100 rai of farmland, which is the area of less than two meters above sea-level, is irrigated by 164 portable pumps owned by the farmers.

### Situation:

(FY 1997 Domestic Survey)

To review remaining works would be difficult owing to financial constraint and difficulty to enter into the site.

**(F/S)** 

Compiled Mar.1990

<u>AS</u>		Thailand Revised	Mar.2008
	COUNTRY	Dredging Plant Development Project	
2.	NAME OF STUDY		
3. SECTOR 5. COUNTERPART AGEN TIME OF DEVELOPMI			
	PRESENT COUNTERPA	ART AGENCY	
6. OBJECTIVES OF THE STUDY		Frame of long-range dredging plan target in 2000 and development plan including improvement and maintenance facilities.	ce of
7.	CONSULTANT(S)	The Overseas Coastal Area Development Institute	
8.	STUDY PERIOD	May.1985 ~ Jun.1986 13month(s) ~	
		Coastal routes of Thailand, 43 routes	
9.	SITE OR AREA		
43		ROJECT(S)  Ind quantity of necessary maintenance dredging was estimated and was compared with the capacity of present dredging tropical such as construction of 2 training hopper dredging, preparation of mechanical center was proposed.	lging plant.

港湾浚渫船隊整備計画

ASE THA/S 318/86 F/S

DDDGCDNIE GITA IIV.G	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

(1)Construction of Dredgers

(FY 1995 Overseas Survey)

This year the Harvor Department called for the international bid on the deferred-payment import\* of dredgers. Approximately 40 companies, including some Japanese companies, have passed the preliminary screening. Currently, the Department is examining the bidders from the viewpoint of their technique and their proposed condition for the deferred-payment. (\*Deferred-payment import: the scheme in which a shipbuilding company constructs a dredger with its own fund and subsequently the Harvor Department purchases it on a deferred-payment basis.)

Finance:

(FY 1997 Overseas Survey)

Private Fund 49.4mil.US\$

\*Contents

Dredger construction

Construction:

1995~1997

Contractor / Ellicott Machine Co. Int (USA)

Detail:

(FY 1993 Overseas Survey)

Requests have been made to various donors, including OECF, for a financial assistance, however, no favorable reply has been given.

(FY 1997 Overseas Survey)

Most of projects should be postponed owing to crisis of present Thai economy.

# STUDY SUMMARY SHEET (Other Studies)

				(Other Studies)	Compiled	Mar.1990
AS	SE THA/S 602/S	<u> 86</u>			Revised	Mar.200
	COLUMN	TC1 '1	1			

COUNTRI				
NAME OF STUDY				
SECTOR	Transportation	/ (Transportation in) General	4. TYPE OF STUDY Other Studies	
5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Bangkok Metropolitan Administration		
PRESENT COUNTERPA				
OBJECTIVES OF THE STUDY				
CONSULTANT(S)	International En	gineering Consultants Association		
STUDY PERIOD	Jun.1985 ~	Mar.1987 21month(s)		
SITE OR AREA		Bangkok Metropolitan Area		
e study compiled basic in vover-Intersection improvement improvement sstop improvement destrian path -Cedian -S	formation on traf wement Guard fence afety island Fraffic signal		improvements.	
	NAME OF STUDY  SECTOR  COUNTERPART AGEN TIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  MAJOR PROPOSED PR Study compiled basic in cover-Intersection improvement stop improvement destrian path - Ce dian - Se affic sign - Te destrian crossing bridge	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Policy recomme  Consultant(s)  Consultant(s)  Consultant(s)  International Enchodai Co., Ltd  Jun.1985 ~  SITE OR AREA  MAJOR PROPOSED PROJECT(s)  Study compiled basic information on trafforerent improvement vernent improvement vernent improvement vernent improvement destrian path — Guard fence edian — Safety island affic sign — Traffic signal destrian crossing bridge — Road marking	ROAME OF STUDY  Road Improvement, Rehabilitation and Traffic Safety in Bangkol  Transportation /(Transportation in) General  Bangkok Metropolitan Administration  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Policy recommendations on traffic safety measures  CONSULTANT(S) International Engineering Consultants Association Chodai Co., Ltd.  STUDY PERIOD Jun.1985 ~ Mar.1987 21month(s)  The Bangkok Metropolitan Area  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  Study compiled basic information on traffic safety planning and recommended some road cover-Intersection improvement verement improvement stop	

ASE	THA/S 602/8	6	<b>Other Studies</b>
		In Progress or In Use	
PRESENT STA	ATUS	Delayed	
		Discontinued	
Description :	,		
(1) Construction o Subsequent Studie Jan.1990 E/N 98 Finance: Aug.1991 E/N 2,	3 mil.Yen		
(FY 1993 Oversea	of Flyovers in other in Survey)	roads on this M/P, with own fund.	
after it is ratified.	s Survey) osed engineering gr	uideline has not been ratified as a BMA's standard guidline, yet, it has not been fully utilized.  require a substantial amount of money for the implementation, have not been commenced	BMA plans to translate it into Thai

(M/P)

Compiled Mar.1990

AS	SE THA/A 102/	/87						Revised	Mar.2008
1.	COUNTRY	Thailand							
2.	NAME OF STUDY	Aerial Photography and Forest Management Plan in the Encroached National Reserve Forest							
3.	SECTOR	Forestry	/ Forestry & Fore	st Conservation	4.	TYPE OF S	TUDY M/I	)	
5.			Royal Forestry Department, Ministry of Agriculture and C	ooperatives					
6.	OBJECTIVES OF THE STUDY	This forest management plan is formulated in order to restore the function which the forest had originally had in the area of the degraded national reserve forest.							
7.	CONSULTANT(S)	Japan Forest Technical Association KOKUSAI KOGYO CO., LTD.							
8.	STUDY PERIOD	Oct.1985 ~	Mar.1988 29mo	onth(s)					
9.	SITE OR AREA	An Area of 20, Plain Region	000sq.km extended over Kanch	anaburi Province and ot	her 4	provinces i	n the wester	n part of the	Central

### 10. MAJOR PROPOSED PROJECT(S)

Using the results of land classification conducted on Model Area (some 20,000 ha) within the Study Area (some 2 million ha), national forest management plan was foundated. The planning components are:

1. Forest Land Use Plan:

The Model Area was divided into three forest land use classification: Forestry area (6,065 ha), agroforestry area (911 ha) and conservation area(14,671 ha), with the integrated evaluation of the land classification results and other related surveys.

2. Forestry Area Plan:

For the forestry area, forest management works with the assumption of sustainable forestry production were proposed on:

- artificial forest, assuming the rotation ages of 50 years for slowly growing species such as teak, and 5 years for fast growing species;
- natural forest, assuming selective cutting cycle of 40 years with the selective cutting rate of 20%;
- bamboo forest.

For conducting those works, necessary facilities are planned;

- nurserise, with the total pruduction of 70,000 seedlings, shared with the following agroforestry plan;
- forest roads, with the total length of 25 km; countermeasures for fire accidents.
- 3. Agroforestry Area Plan:

For the agroforestry area, in order to harmonize local life of 54 households in the Mocdel Area and forest conservation, the following plans were proposed:

- forest village plan, communal forest plan, agrosilvicuture plan,
- 4. Conservation Area Plan:

Conservation principles were formulated for National Park area and where is critical in terms of soil and water conservation.

\* Costs are not calculated.

ASE	THA/A 102/87	$\mathbf{M}/$
ASE	THA/A 102/87	$\mathbf{M}'$

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

### **Description:**

Reasons of Stoppage:

(FY1993 Overseas Survey)

- 1. The change of Thai Government policy on national forest land use.
- 2. There is no provision for after land use in the national park, therefore the agroforestry program cannot start in the model area.
- $3. \ The \ Government \ wanted \ RFD \ to \ be \ responsible \ for \ forest \ protection \ and \ nature \ conservation.$

Timber industry will be privatalized. Nobody in RFD, at present, pays attention to the project.

### Situation before Stoppage:

In order to prepare a project based on the proposed plans, the Royal Forest Department has been coordinating the handling of the existing projects by itself. The proposed plans contain various types of projects.

Therefore Japan will be needed for supporting to prepare a project by conducting a follow-up survey and/or an experimental project.

(F/S)

Compiled Mar.1990

THA/S 319/87 **ASE** Revised Mar.2008 1. COUNTRY Thailand New Krungthep Bridge Construction and Thonburi Road Extension 2. NAME OF STUDY 3. SECTOR / Road TYPE OF STUDY F/S Transportation 5. Public Works Department COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Construction of PC bridge. **OBJECTIVES OF THE** STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) Central Consultant, Inc. Feb.1986 Jun.1987 16month(s) 8. STUDY PERIOD New Krung Thep Bridge: downstream side of existing Krung Thep Bridge over Chao Phraya River Thon Buri Road: between Middle and Outer Ring Roads, Thon Buri Area. 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) (1)New Krungthep Bridge Main Bridge: 4-span continuous PC Box of 476m length(125m+226m+125m), Navigational clearance in center of 34m in height and 60 in width. Thoribori Side Bangkok Side Approach Bridge 770m 599m Interchange 131m 120m 400m Rampway 480m The project cost is 1,885 million bahts. (2)Thoribori Road Extention 1st Stage Construction Target year of opening:1991, construction of a L-shaped bypass of 3.3km 2nd Stage Construction Target year of opening:1995, construction of a connector with ORR 6.5km The project cost is 2,469 million bahts.

ASE THA/S 319/87 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### **Description:**

Factors of realizing the projects are as follows:

- (1) Aging of the existing Krung Thep Bridge; and
- (2) Strong support by Public Works Dept.

### (1) Construction of New Krungthep Bridge

The project is integrated into the 6th and 7th National Economic and Social Development Plan and is put on high priority. It was already approved by the cabinet in August, 1987.

### Subsequent Studies:

D/D

Consulting Firm / JV of NORCON of Norway and the Thai Consultants)

Study Cost / 130 mil. Bahts including the cost of D/D for the construction of Tonburi Road financed by PWD

Finance

Budget / 1,950 mil.Bahts (FY 1995 Overseas Survey)

Jan.1993 L/A 7,546 mil. Yen for the construction of New Krungthep Bridge

Total Project Cost: 15,091 mil.Yen

Construction:

End of 1995~Oct.1999 20% finished (end of 1997)

(2) Construction of Tonburi Road

Subsequent Studies:

D/D for the first stage (3.5km)

Finance:

Government budget / 4,370 mil.Bahts

Construction:

Oct.1996~Oct.1999 12% finished (end of 1997)

**(F/S)** 

Compiled Mar.1990

AS	SE THA/S 3	<b>20/87</b> Revised Mar.2008
1.	COUNTRY	Thailand
		Railway Yards Improvement
2.	NAME OF STUDY	zaminaj zamo mipro ivinom
2	SECTOR	Transportation / Railway 4. TYPE OF STUDY F/S
	SECTOR	1
5.		State Railway of Thailand
	COLINITEDDA DT A CEN	CV AT THE
	COUNTERPART AGEN	
	TIME OF DEVELOPME	NISTUDY
	PRESENT COUNTERPA	ART AGENCY
	<u> </u>	Preparation of a basic improvement plan for 10 years with a target year of 2006
		F/S for several high-priority yards with a target year of 1996
	OR IECENTES OF THE	
6.	OBJECTIVES OF THE	
	STUDY	
		Japan Railway Technical Service
7.	CONSULTANT(S)	Pacific Consultants International
		The Japan Electrical Consulting Co., Ltd.
		Dec. 1985 ~ Jun. 1987 18month(s)
8.	STUDY PERIOD	
		~
		Bangkok, Mae Noni, Bang Sue, and Hat Yai Stations
9.	SITE OR AREA	
10.	MAJOR PROPOSED PR	O.IECT(S)
_		es(passenger facilities, freight faacilities, track facilities, electric facilities, signalling and telecommunications facilities):
		truciotn of two arrival tracks for strngthening capacity of arrival tracks; 2.Modification of two departure tracks into arrival/
dep	arture tracks for strength	ening capacity of arrival/departure tracks; 3.Additional construciton of one arrival track for strengthening capacity of
dep	parture tracks. 4.Extension	n of effective length of the passenger car yard for strengthening capacity for passenger car; 5. Extension of effective length of
trac	cks for DRC(diesel railca	r) storage; 6.Modification of locations of signal erection and improvement of interlocking devices for ensuring train safety.
		on of two sorting tracks for freight cars in a place about 4 km away from the origin of the Bangkok Port Line; 2.New
		be between Mae Nam Station and the Bangkok Port Line; 3.Additional construction of one sorting track and extension of
		strengthening capacity for empty car storage.
		ion of two arrival/departure tracks in the freight station for dealing with direct transport between freight stations;
2.I1	nprovement of signalling	facilities entailed by track improvement(erection of signals, etc.)
Ha	Yai: 1.Modification of t	rack layout for eliminating the concurrence of freight car shunting and handling of imcoming and outgoing freight trains;
		three sorting tracks for strengthening capacity for freight car sorting; 3.Additional construction of two storage tracks for
		ith the increase in originating and terminating trains; 4.Improvement of signaling facilities entailed by track improvement
		th the increase in originating and terminating trains, 4.1inprovement of signating facilities entailed by track improvement
(Er	ection of signals,etc.)	

ASE THA/S 320/87 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

Detailed design completed in December 1987. Part of the high-priority work for Bangkok and Bang Sue stations was implemented.

At present, the project is progressing in two categories.

- (1) 1st category -- Work to improve the operational efficiency of main yards and to meet future traffic increase.
- \* Bangkok yard -- Construction of a new departure track and 2 arrival tracks, conversion of 2 arrival tracks
- to arrival/departure tracks, and extension of the effective length(37 million baht, to be completed at the end of 1990).
- \* Ban Phachi yard -- 25 million baht, to be completed in the middle of 1990.
- \* Other improvements -- To start as scheduled.
- (2) 2nd category -- Smaller-scale work such as platform improvement.
- \* 5 to 10 yards to be improved every year.

# (FY1991 Overseas Survey)

The project is integrated in the SRT Investment Program and the construction will be completed in 1993.

## (FY1993 Overseas Survey)

SRT improved above yards during the period of the Sixth National Development Plan, 1987-91.

Total investment cost is 120 million baht.

Construction of Bangkok and Ban Pachi Yards(at the junction of the Northern and Northeastern Lines, with priority next to four major yards) has almost been completed. Schedules for Mae Nam, Band Sue, and Hat Yai Yards are being delayed, excluding some urgent cases, due to the changes in transport trend and other factors. As for Mae Nam, it has become necessary to reexamine the original plan in such respects as:the transfer of outgoing and incoming freight due to the opening of Laem Chabang Port;and new installation of oil pipeline(Mae Nam-Ayutthaya). It is also necessary to review the plan for Ban Sue regarding the relations with the Hope Well Plan,etc. As for Hat Yai,yard improvement will be promoted in accordance with the traffic trend in the future because the transport demand is somewhat sluggish at present.

(FY1995 Domestic Survey)

No additional information.

(FY1995 Overseas Survey)

No additional information.

(Other Studies)

Compiled Mar.1990

AS	SE THA/S 603/8	87		R	levised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Effective Port M	Management and Operation System			
3.	SECTOR	Transportation	/ Port	4. TYPE OF STUDY Other S	tudies	
5.	COUNTERPART AGEN TIME OF DEVELOPME		Ministry of Transport and Communication			
	PRESENT COUNTERPA	ART AGENCY				
6.	OBJECTIVES OF THE STUDY		a framework for port operation			
7.	CONSULTANT(S)	The Overseas C	oastal Area Development Institute			
8.	STUDY PERIOD	Aug.1986 ~	Mar.1988 19month(s)			
	SITE OR AREA					
- D - M - P	Taking of the port manage reparation for the operation	nagement ntal concept for the ment policy. on and management on concerning port	ent as an international port. t development, management and operation.			

ASE THA/S 603/87 Other Studies

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

This is the first study in Thailand, which focused on the port management and operation system. The recommendations made in the study have been used as a guideline for the port M&O.

The National Port Administration Commission was established in the Ministry of Transport and Communication by accepting the recommendations of the study and came into operation in December 1988.

# (1) Port of Leam Chabang

The administrative body was established in PAT.

Three container terminals and one agricultural/bulk berth are leased to private companies and operated by them.

A multi-purpose terminal is under bidding for the lease.

The other bulk terminal is planned to be leased to a private company.

# (2) Port of Map Ta Phut

Its operation started in 1992. IEAT is an administrative body and each berth is leased to private companies.

# (3) Port of Song Khla and Port of Phuket

The private sector is in charge of the port management and operation.

# STUDY SUMMARY SHEET (M/P)

E THA/S 104/ COUNTRY NAME OF STUDY SECTOR	Thailand	ng System in the Chao Phraya River Basin		Revised	Mar.2008
NAME OF STUDY		ng System in the Chao Phraya River Rasin			
	Flood Forecasti	ng System in the Chao Phraya River Basin			
SECTOR		ng System in the Chao i maya River Basin			
	Social Infrastruc	cture / River & Erosion Control	4. TYPE OF STUDY M/F	)	
COUNTERPART AGEN TIME OF DEVELOPMI		Royal Irrigation Department, Ministry of Agricultur	re and Cooperatives		
PRESENT COUNTERPA	ART AGENCY				
	Formulation of	a flood forecasting system over Chao Phraya river ba	asin		
OBJECTIVES OF THE STUDY					
CONSULTANT(S)					
STUDY PERIOD	Feb.1987 ~	Jun.1988 16month(s)			
SITE OR AREA	Chao Phraya R	iver Basin(162,000 sq.km)			
MAJOR PROPOSED PR	ROJECT(S)				
p 1: Flood forecasting sy	stem started with				
of rainfall gauging statio ions, (5) 110 of VHF rac	ns, (2) 19 of wate lio stations, (6) 1:	er level gauging stations, (3) 19 of rainfall/water levels of VHF repeater stations, (7) 2 of VHF radio statio	el gauging stations, (4) 2 of rada	r rainfall gaug	ging
	CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED	CTI Engineering Nippon Koei Consultant(s)  STUDY PERIOD  Feb. 1987  Chao Phraya R  Chao Phraya R  MAJOR PROPOSED PROJECT(s)  p 1: Flood forecasting system started with 1) 34 of rainfall gauging stations, (2) 31 of a management system.  p 2: Flood forecasting system with latest e of rainfall gauging stations, (2) 19 of water ions, (5) 110 of VHF radio stations, (6) 15	OBJECTIVES OF THE STUDY  CONSULTANT(S)  CTI Engineering Co., Ltd. Nippon Koei Co., Ltd.  STUDY PERIOD  Feb. 1987 ~ Jun. 1988 16month(s)  Chao Phraya River Basin(162,000 sq.km)  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  1: Flood forecasting system started with the existing facilities as the bases and by adding au: 1) 34 of rainfall gauging stations, (2) 31 of water level gauging stations, (3) 54 of HF radio state management system.  2: Flood forecasting system with latest equipment and facilities operated under full flood for of rainfall gauging stations, (2) 19 of water level gauging stations, (3) 19 of rainfall/water level	CONSULTANT(S)  CTI Engineering Co., Ltd. Nippon Koei Co., Ltd.  STUDY PERIOD  Feb. 1987 ~ Jun. 1988 16month(s)  Chao Phraya River Basin(162,000 sq.km)  MAJOR PROPOSED PROJECT(S)  1: Flood forecasting system started with the existing facilities as the bases and by adding auxiliary equipment as required. Tall 34 of rainfall gauging stations, (2) 31 of water level gauging stations, (3) 54 of HF radio stations, (4) 7 of VHF radio station amanagement system.  p 2: Flood forecasting system with latest equipment and facilities operated under full flood forecasting organizations. This syst of rainfall gauging stations, (2) 19 of water level gauging stations, (3) 19 of rainfall/water level gauging stations, (4) 2 of rada ions, (5) 110 of VHF radio stations, (6) 15 of VHF repeater stations, (7) 2 of VHF radio stations, (8) 5 of sub-stations, (9) 6	CONSULTANT(S)  CTI Engineering Co., Ltd. Nippon Koei Co., Ltd.  STUDY PERIOD  Feb. 1987 ~ Jun. 1988

ASE THA/S 104/88 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

(1)Flood Control Center Subsequent Studies:

Jun.1988 B/D (Pacific Consultant)

Finance

Jan.1989 E/N 924 mil. Yen (Project for the Improvement of Equipment of the Flood Control Center in Bangkok)

Project Content: Provision of machinery and equipment for the Flood Control Center, which is to be constructed for the purpose of the formulation of the flood mitigation measures.

(2)Flood Mitigation

Subsequent study:

(FY 1997 Domestic Survey)

Nov.1996~Dec.1998 (JICA, 5,400 mil.yen)

Situation

RID has a strong desire to implement the projects.

(FY 1993 Overseas Survey)

Although RID was not trained a flood forecasting method during the implementation of this study, it is utilizing the existing method to obtain data, which is proved to be accurate.

(FY 1996 Overseas Survey)

RID requested to JICA for food mitigation in Chao Phraya River Basin as an urgent in 1996.

(M/P+F/S)

Compiled Mar.1990 **ASE** THA/A 202B/88 Revised Mar.2008

1.	COUNTRY	Thailand	Thailand							
2.	NAME OF STUDY	Agricultural Lar	nd Conservation	for Integrated	Rural Develop	ment in the	e Ea	st of Thaila	nd	
3.	SECTOR	Agriculture	/ (	Agriculture in)	General		4.	TYPE OF S	TUDY	M/P+F/S
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  5.  PRESENT COUNTERPART AGENCY			riculture and Co Land Developn						
6.	OBJECTIVES OF THE STUDY	Building up the	Building up the ability of project execution							
7.	CONSULTANT(S)	Taiyo Consultan Sanyu Consultan								
8.	STUDY PERIOD	Sep.1987 ~	Sep.1988	12month(s)						
	SITE OR AREA	Four provinces in the eastern Thailand facing or close to the sea (Chachoengsao, Chonburi, Rayon, and Chanthaburi)								

<M/P><F/S> All over Thailand, soil erosion problems caused by random development is serious, 34% of national land is eroded. 47%(716,000ha) of the areas in 4 provinces of the East of Thailand are eroded.

The project for "Agricultural Land and Conservation for Integrated Rural Development" has been formulated. In 16 pilot areas selected from 4 provinces of the East of Thailand, "The Feasibility Study for Agricultural Land and Conservation for Integrated Rural Development" was carried out.

Province	Study Area	Project Area	Planning Area	Pilot Area
	(sq.km)	(sq.km)	(sq.km)	(sites)
Chachoengsao	5,351	5,351	2,200	4
Chonburi	4,363	4,363	3,041	5
Rayong	3,552	3,552	2,634	5
Chanthaburi	6,338	1,981	965	2
Total	19,604	15,247	8,840	16

Contents of Projects

Soil conservation measures

- 1. Agricultural measures: cropping methods, cultivation methods
- 2. Mechanical measures: terracing systems, terrace channels
- 3. Irrigation facility: farm ponds and reservoirs
- 4. Supporting measures: infrastructures, agro-industry, farmers'education, institutional cooperation

ASE THA/A 202B/88 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

(M/P)

This M/P has been utilized to formulate a farmland development project.

In order to reinforce the DLD's capability to implement projects, it is planned to establish "Technology Introducing Center" at the DLD main office and "Soil and Water Conservation Center" at every regional office of DLD.

(F/S)

The Thai Government is implementing the pilot projects in 16 districts, which were proposed in this F/S, according to the priority given to each project.

(1)Procurement of Agricultural Machinery and Machinery for Construction

Subsequent Studies: B/D financed by the Japanese Government

Finance: May 1991 E/N 320 mil. Yen (Project for Providing Equipment for Land and Water Conservation in the Eastern Thailand).

(2)Construction of Pilot Areas

Subsequent Studies:1992~1994 D/D

Finance: RTG Budget (136.1 mil.Bahts)

(The cost to construct 16areas is estimated 99.16 mil.Bahts

(FY 1993 Overseas Survey))

Construction:1993~1998 (FY 1996 Overseas Survey) 13 pilot areas have already been constructed.

(FY 1997 Domestic Survey)

Other 3 areas, are being constructed gradually by own fund.

(FY 1997 Overseas Survey)

As for 3 areas, construction is scheduled to be completed within FY 1998.

\*The data will be collected:

1.to prepare for technical criteria for land and water conservation

2.to manage land and water conservation works

3.to prepare for a manual on cultivation and soil management

4.for training on land and water conservation.

The pilot areas will be maintained by Land Development Regional Office II.

(FY 1998 Domestic Survey)

Construction has been completed.

(3)Land and Water Conservation Center Project in the Eastern Thailand

Project-type Technical Cooperation:Jun.1993~Jun.1998

"Agricultural Land Conservation in East Thailand"

(FY 1998 Domestic Survey)

The following Technical Transfer was conducted by this project-type Technical Cooperation:

- (1) Formation of technical criteria for land/water conservation;
- (2) Management of land/water conservation works;
- (3) Preparation of manual on cultivation and soil management; and
- (4) Training on land/water conservation.

(M/P+F/S)

Compiled Mar.1990 **ASE** THA/S 207B/88 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Road Developm	ent in the Centr	al Region				
3.	SECTOR	Transportation	/ <b>F</b>	Road		4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Dept. of Highv	vays				
	PRESENT COUNTERPA	RT AGENCY						
6.	OBJECTIVES OF THE STUDY	Road developme	ent					
7.	CONSULTANT(S)		Katahira & Engineers International Nippon Koei Co., Ltd.					
8.	STUDY PERIOD	Aug.1987 ~	Mar.1989	19month(s)				
9. SITE OR AREA			26 changwats,	including Banş	gkok; 104,000 sq.km, p	900p. 17	7 million)	
LU.	MAJOR PROPOSED PR	OJECI(S)						

- <M/P> 1)Trunk highway network (ML projects), 8 Links, total length:288.8km. Project No.ML-1 ~ ML-8
- The increase of lanes and new highway construction are necessary in many places.
- It will be necessary in the future to develop a road network with inter-city expressways.
- 2) Supplemental road network (IM projects), 23 Links, total length: 718.2km.

Project No.IM-1 ~ IM-23

- It will be necessary in the future to improve 85 routes (2,017km)
- 3) Rehabilitation (RH projects), 8 Links, total length: 206.8 km

Project No.RH-1 ~ RH-8

4)Improvement of intersections 48 places

The project cost 1) is the ML project and. 2) is the IM project.

<F/S>1)Trunk highway network (ML projects) 7 projects, total length 320.3km

ML-1:13.6km, ML-2:23.7km, ML-3:44.6km, ML-4:61.9km, ML-5:50.3km

ML-7:40.9km, ML-9:81.7km

2)Supplemental road network (IM projects)

11 projects, total length 297.2km

IM-1:18.7km, IM-2:35.9km, IM-11:40.7km, IM-12:51km, IM-13:17.8km

IM-14:25.6km, IM-15:24.7km, IM-16:20.8km, IM-17:19.2km, IM-22:15.9km

IM-23:26.9km

3) Rehabilitation (RH projects) 3projects, total length 96.7km

RH-2:39.7km, RH-3:17.9km, RH-5:39.3km

4)Improvement of intersections

ASE THA/S 207B/88 M/P+F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

## **Description:**

15 routes out of 21 routes surveyed in F/S will be constructed with the OECF loan.

Subsequent Study: 1989~1995 B/D, D/D (IBRD, ADB, DOH)

Situation:

(FY 1995 Overseas Survey)

Most of the ML-project and IM-project were implemented as the national project and most of the construction works were completed.

### (FY 1997 Overseas Survey)

1. ML project (Section, Fund/Amount mil.B, Completed year.month)

(1) ML-1: Chonburi Bypass(OECF, DOH/215.7, 1993.5) (2) ML-2: Pattaya - Satta Hip(DOH/375.4, 1995) (3) ML-3: A.Satta Hip - C.Rayong(DOH/800.9, 1995) (4) ML-4: A.Klang - C.Chantaburi (DOH/798.0, 1996) (5) ML-5: Chonburi - Pattaya(OECF, DOH/1685.7, 1994.6) (6) ML-6: Pak Tho - Ratchaburi(ADB, DOH/169.9, 1995.5) (7) ML-7: Minburi - Chachengsao(DOH/1831.9, 1994.1) (8) ML-9: Bangkok - Chonburi(OECF, DOH, 1998.12)

# <ML-1/ML-5>

Finance:

Nov.1988 L/A 4,117 mil.Yen (Chonburi-Pataya Highway Construction Project Phase I)

Sep.1991 L/A 5,670 mil.Yen(Chonburi-Pataya Highway Construction Project Phase II)

\*Contents of project/Widening of Chonburi bypass by 14m, Construction of road connecting Chonburi bypass and Pataya, Construction of five interchanges

Construction:

Aug.1990 ~ Dec.1996

Contractor/Kampangphetviwat, Thaiwat Engineering, Thaipipatana

 $\langle ML-9 \rangle$ 

Finance:

Dec.1990 L/A 15,497 mil. Yen (Bangkok-Chonburi Highway Construction Project Phase I)

Sep.1993 L/A 13,631 mil.Yen(Bangkok-Chonburi Highway Construction Project Phase II)

\*Contents of project/Construction of Inter-city Highway connecting Bangkok and Chonburi (Total length 83km).

Construction:

Jun.1994 ~ May.1998 (schedule)

Operation & Maintenance:

(FY 1997 Domestic Survey)

ML-9 was leveled up to City toll road. Toll plaza will be constructed in 1998 to utilize for two years. Consultant recommended to DOH the early establishment of M/P regarding to national toll system.

Effect:

(FY 1997 Domestic Survey)

1 or 1 and a half hour of time reduction between Bangkok~Chonburi~Pataya and increase of traffic are expected.

<Outer Ring Road (Eastern area)>

Nov.1998 scheduled to be completed

# (2) IM project

(1) IM-3: B.Nong Ei Pang-B.Sam Chuk (DOH/130.0, 1995) (2) IM-5: A.Lan Sak-B.Khao Chon Kan(DOH/150.0, 1995) (4) IM-6: B.Thap Krit Klang-B.Phanon Rok(DOH/76.7, 1994.7) (5) IM-7: K.A.Khok Charoen-B.Mai Samakki(DOH/96.4, 1994.9) (6) IM-8: B.Lam Som Pung-Rt.2256(ADB.DOH/38.1, 1994.10) (7) IM-10: B.Rong Sung-Lopburi(DOH/101.8, 1994.8) (8) IM-11: B.Channa Soot-A. Po Thong(DOH/241.2, 1992.12) (9) IM-12: A.Po Thong-A.Sena(DOH/400.5, 1994) (10) IM-13: A.Bang Pa In-Ayuttaya(OECF, DOH/185.7, 1991.1) (11) IM-14: A.Thanyaburi-A.Wang Noi(OECF, DOH/284.8, 1998.8) (12) IM-16: A.Lamlukka-B.Khlong Siphok(OECF, DOH/305.1, 1993.12) (13) IM-18: Nakhon Nayok-A.Basang(DOH/58.8, 1995) (14) IM-20: B.Pluang-Khao Lak Chang(DOH/108.0, 1995) (15) IM-21: B.Nong Chang-J.R.3138(DOH/96.5, 1994) (16) IM-22: J.R.304-A.Bangnamprieo(DOH/472.7, 1995) (17) IM-23: J.R.32-J.R.3022(OECF, DOH/159.0, 1993.3)

<Samut Prakan~Banga Hilly> (connect to RT.No.34 Bunke~Bunpakong toll road)

Finance: Sep.1997 L/A ADB

\*Contents of Project/Up and down separate structure, 3 lanes for each side. Soft soil treatment

# (3) RH project

(1)RH-1: B.Hang Nam-Chainat(DOH/136.6, 1993) (2)RH-2: Nakhon Sawan-A.Chum Saeng(DOH/162.8, 1994.6) (3)RH-4: Khao Hatyao-Khlong Phai(DOH/61.6, 1994.1) (4)RH-5: Ban Bung-A.Klaeng(OECF, DOH, 1998.8) (5)RH-7: Bang Ping-Phraek Sa(DOH/236.9, 1994.9)

# (4) Improvement of intersections

(FY 1998 Domestic Survey)

Improvement work including three additional pedestrian overpasses has been completed.

(5) Remaining projects (a toll highway of Pattaya - Map Ta Put).

Impeding factors: Land acquisition at the surrounding area of Pattaya interchange. Deficiency of the national budget. Decline in the investment for Map Ta Put Industrial Estate.

Subsequent study: June 1996 ~ June 1997 D/D with ADB sector loan.

Finance: It is planning to apply for 25th OECF loan.

Construction: It is planning to star in the latter half of 2000.

Future prospect: Implementation of the project may be delayed.

(M/P+F/S)

Compiled Mar.1990 **ASE** THA/S 208B/88 Revised Mar.2008

1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Potential Touris	m Development for the Southern Region				
3.	SECTOR	Tourism	/ (Tourism in) General	4.	TYPE OF STUDY	M/P+F/S	
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  5.  PRESENT COUNTERPART AGENCY			Tourism Authority of Thailand				
6.	OBJECTIVES OF THE STUDY	Formulation of a master plan through 2001 and feasibility analysis of priority projects					
7.	CONSULTANT(S)	Pacific Consultants International					
8.	STUDY PERIOD	Nov.1987 ~ Mar.1989 16month(s) ~					
	SITE OR AREA	Phuket, Phangnga, and Krabi (Greater Phuket)					
10	MATOD DDODOGED DD	(ATECT(C)					

# 10. MAJOR PROPOSED PROJECT(S)

<M/P>

- Development of tourism resources

Conservation of historical sites in Phuket; village tourism; Andaman Historical and Cultural Research Center; National park development; training center

- Improvement of tourism infrastructure:

Airport; water supply; roads; cruising route improvement urban development; tourism manpower training school

- New resort complex:

Thai Muang, Khok Kloi beach resort, Phuket Marine center

1) New resort complex:

- Thai Muang international beach resort base (5,000 hotel rooms)
- Khok Kloi public beach development (1,000 hotel rooms)
- 2) Phuket marine center (100ha)
  - Yacht harbor (200 berths for yachts and a basin for boats)
  - Marine hotel (200 rooms)
  - Marine center (restaurants, supermarkets)

ASE THA/S 208B/88 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

(FY 1996 Overseas Survey)

Finance:

Sep.1993 L/A 4,268 mil.Yen for the improvement of the social infrastructure to promote the tourism in four cities in the northern, southern and northeastern Thailand, and for D/D and the construction of Andaman Historical and Cultural Research Center.

(1) Andaman Historical and Cultural Research Center (117,600,000 Bahts)

Subsequent Study:

Sep.1996~Jun.1997 D/D

Consulting Firm / Team Consulting Engineers Co., Ltd., PCI

Study Cost / 9,207,500 Bahts

Construction:

(FY 1997 Overseas Survey)

Apr.1998~Jul.1999

(2)Por Bay Tourist Pier, Chalong Bay Tourist Pier (Improvement of Tourist Infrastructure)

(Por Bay -- 35,916,700 Bahts, Chalong Bay -- 47,698,400 Bahts)

Subsequent Study:

(FY 1997 Overseas Survey)

Mar.1997~Jan.1998 D/D, EIA

Consulting Firm / Team Consulting Engineers Co., Ltd., PCI

Study Cost / 15mil.Bahts

Finance:

(FY 1997 Overseas Survey)

Sep.1993 L/A 200mil.Bahts

\*Components

Chalong Bay Tourist Pier (minor component from JICA's proposal)

Situation:

(FY 1997 Overseas Survey)

The implementation was delayed because of the large project scale, economic deterioration and high land price.

There is less possibility to implement Por Bay Project because the inland area is not enough and the land price is very high.

# Others

1)TAT is compiling the summary of the study report in Thai.

2)TAT has been in cooperation with Royal Forest Department and Fine

Arts Department to implement the following project:

\*Andaman Historical and Cultural Research Center (Krabi)

\*Training School for Tourist Industry (Phuket)

\*National Park Training Center (Phuket)

# (FY 1993 Overseas Survey)

After the M/P report was submitted, TAT held the seminar for the related agencies.

The Committee composed of related provincial authorities, TAT, FAD, etc. has been examining the project.

(FY 1997 Domestic Survey)

No information.

(F/S)

Compiled Mar.1990

**ASE** THA/S 321/88 Revised Mar.2008 COUNTRY Thailand Project of the Regional Truck Terminals NAME OF STUDY 3. SECTOR / Land Transportation TYPE OF STUDY F/S Transportation 5. Dept. of Land Transport (DLT), Ministry of Communications COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Projection of cargo and determination of the scale of regional terminals OBJECTIVES OF THE STUDY Pacific Consultants International 7. CONSULTANT(S) Jan.1987 Jul.1988 18month(s) 8. STUDY PERIOD Bangkok, Chieng Mai, Khon Kaen, Nakhon Sawan, Nakhon Ratchasima, Hat Yai/Songkhla 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Construciton of three truck terminals; Stage1(1991-1992) Stage2(1991-1992) area 1. Chaing Mai 24,555sq.m 27berth 18berth 2. Khon kaen 30 20 27,246sq.m 3. Hat Yai/Songkhla 50 45 49,104sq.m Freight Volume Handled 1996 2006 (1000ton/year) 1. Chaing Mai 436 667 2. Khon Kaen 661 1,107 3. Hat Yai/Songkhla 840 1,598 Newly established joint venture company(limited com.) composed of the Government and private company operates terminal. One company is assigned each terminal.

地方トラックターミナル整備計画

ASE THA/S 321/88 F/S

	Completed or In Progress	Promoting
DDECEMP OF A DITC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Reasons for Delay or Suspension:

The regional truck terminal and the Bangkok truck terminal are operationally complementary. In particular, the regional truck terminal becomes in use only if the Bangkok truck terminal is in operation. Thus, the delay in the construction of the Bangkok truck terminal has caused the delay in the implementation of this project.

### Detail:

Oct.1992 The Study on the Bangkok Truck Terminal Project was updated.

The Thai government considers the Bangkok truck terminal project as one of measures to ease the traffic congestion in Bangkok and established the Truck Terminal Construction committee (Secretariat is in DLT) to promote the project implementation. The implementation of the regional truck terminal will be commenced after necessary arrangements are made to start the construction of the Bangkok truck terminal. In case the Bangkok truck terminal project is successfully implemented, the Thai government will apply various implementation methods used in the Bangkok truck terminal project to this regional truck terminal project such as the provision of public land, the use of the local fund, etc.

A JICA expert has been dispatched to DLT since November 1988 and as of March 1993 he is working on the implementation of the truck terminal projects.

## (FY 1995 Overseas Survey)

Because the regional truck terminal will be in use only if the Bangkok truck terminal is in operation, the project implementation has been delayed. However, as the Bangkok truck terminal project has moved into the implementation, the regional truck terminal project has also moved into realization. The project is now integrated into the Eighth Five-Year Plan.

# (FY 1996 Domestic Survey)

While the construction of the Bangkok Metropolitan Truck Terminal has been determined, no progress has been made for the implementation of this proposed project, Regional Truck Terminal.

# (FY 1997 Overseas FU Survey)

The project is in the process of land acquisition.

Only project in Nakhon Ratchasima Province(Korat) already finished land acquisition process. In fact other projects have been proposed by JICA to be implemented prior to Nakhon Ratchasima Project but the land acquisition process has not been acheived yet. To be sured that priority for project implementation of DLT will be changed to be started at Nakhon Ratchasima Province first.

The project implementation will be done after completion of the Greater Bangkok Truck Terminal Project, which is scheduled to be completed in late of 1998.

The JICA study on the Regional Truck Terminals Project is now not feasible because many factors in the proposed provinces are changed, especially, land price, location, and scale of the project. Many components of the proposed projects are currently under estimated.

(Basic Study)

Compiled Mar.1990

SE THA/S 502/S	88				Revised	Mar.2008
	Thailand					
NAME OF STUDY	Topographic Ma	apping of Bangkok Metropolitan Area				
	CY AT THE	Eture / Survey & Mapping Bangkok Metropolitan Administration(BMA)	4.	TYPE OF STUDY	Basic Study	
PRESENT COUNTERPA	ART AGENCY					
OBJECTIVES OF THE STUDY			m and	with a scale of 1:4,	000 covering 300	) sq.km of
CONSULTANT(S)						
STUDY PERIOD	Sep.1986 ~	Mar.1989 30month(s)				
MAJOR PROPOSED PRicial photography Bangk pographic mapping Bandicale: 1/10,000)	ROJECT(S) cok Metropolitan gkok Metropolita	Region 4,000 sq.km un Area 2,000 sq.km				
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PROPO	COUNTRY NAME OF STUDY  SECTOR  Social Infrastruct  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  To make topograthe Bangkok Me  OBJECTIVES OF THE STUDY  International En KOKUSAI KOO  SEP. 1986 ~  Bang  SITE OR AREA  MAJOR PROPOSED PROJECT(S) rial photography Prographic mapping Prographic ma	Thailand  NAME OF STUDY  SECTOR  Social Infrastructure  SOCIAL Infrastructure  SOCIAL Infrastructure  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  TO make topographic map with a scale of 1:10,000 covering 200 sq.k the Bangkok Metropolitan Area.  OBJECTIVES OF THE STUDY  International Engineering Consultants Association  KOKUSAI KOGYO CO., LTD.  STUDY PERIOD  Sep.1986 ~ Mar.1989 30month(s)  ENGRYPHEND  SUBJECTIVES OF THE STUDY  MAJOR PROPOSED PROJECT(S) rial photography Bangkok Metropolitan Region 4,000 sq.km  pographic mapping Bangkok Metropolitan Area 2,000 sq.km  cale:1/10,000)  pographic mapping Builtup Area of Bangkok 300 sq.km	Thailand  NAME OF STUDY  SECTOR  Social Infrastructure / Survey & Mapping   4.  Bangkok Metropolitan Administration(BMA)  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  To make topographic map with a scale of 1:10,000 covering 200 sq.km and the Bangkok Metropolitan Area.  OBJECTIVES OF THE STUDY  To make topographic map with a scale of 1:10,000 covering 200 sq.km and the Bangkok Metropolitan Area.  CONSULTANT(S)  International Engineering Consultants Association  KOKUSAI KOGYO CO., LTD.  STUDY PERIOD  Sep. 1986 ~ Mar. 1989 30month(s)  Bangkok Metropolitan Region  SITE OR AREA  MAJOR PROPOSED PROJECT(S) rial photography Bangkok Metropolitan Region 4,000 sq.km  pographic mapping Bangkok Metropolitan Area 2,000 sq.km  cale: 1/10,000)  pographic mapping Builtup Area of Bangkok 300 sq.km	Thailand NAME OF STUDY  SECTOR  Social Infrastructure / Survey & Mapping OUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  To make topographic map with a scale of 1:10,000 covering 200 sq.km and with a scale of 1:4, the Bangkok Metropolitan Area.  To make topographic map with a scale of 1:10,000 covering 200 sq.km and with a scale of 1:4, the Bangkok Metropolitan Area.  OBJECTIVES OF THE STUDY  International Engineering Consultants Association KOKUSAI KOGYO CO., LTD.  STUDY PERIOD  Sep. 1986 ~ Mar. 1989 30month(s)  Bangkok Metropolitan Region  SITE OR AREA  MAJOR PROPOSED PROJECT(S) rial photography Bangkok Metropolitan Area 2,000 sq.km pographic mapping Bangkok Metropolitan Area 2,000 sq.km pographic mapping Bangkok Metropolitan Area 2,000 sq.km pographic mapping Bangkok Metropolitan Area 2,000 sq.km	Thailand

ASE THA/S 502/88 Basic Study

PRESENT STATUS	In Progress or In Use
	Delayed
	Discontinued

# **Description:**

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

These are the organizations which are currently using the maps:

- -Bangkok Metropolitan Administration (BMA)
- -Department of Town and Country Planning, Ministry of Interior
- -Metropolitan Water Works Authority, M.I.
- -Department of Public Works, M.I.
- -Express and Rapid Transit Authority of Thailand, M.I.
- -Royal Irrigation Department, Ministry of Agriculture and Cooperatives
- -National housing Authority, M.I.
- -Others

# (FY 1996 Domestic Survey)

Although the counterpart of this project is BMA, Royal Thai Survey Development has been undertaking the operation and the produced materials have been kept there.

## (FY 1996 Overseas Survey)

These maps are highly valued and widely used. After the completion of the map, notable changes have been made. However, revision and reprinting are quite difficult to conduct due to BMA's budgetary problems. The Map needs to be updated and digitized. Thus, additional technical assistance is desired.

# STUDY SUMMARY SHEET (Other Studies)

				(Out	ei Stuui	<b>CS</b> )				Compiled	Mar.1990
AS	SE THA/S 604/8	88								Revised	Mar.2008
	COUNTRY	Thailand									
_	NAME OF CUIDS	City Planning M	<b>I</b> anual								
۷٠	NAME OF STUDY										
3.	SECTOR	Social Infrastruc							UDY	Other Studies	
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			Dept. of Tow	vn and Counti	ry Planning(I	OTCP), Minis	try of	Interior			
	PRESENT COUNTERPA	ART AGENCY									
		Technical transf	er on urban p	olanning					·		
6.	OBJECTIVES OF THE STUDY										
7.	CONSULTANT(S)	Yachiyo Engine	eering Co., Lto	d.							
8.	STUDY PERIOD	Nov.1987 ~	Feb.1989	9 1	15month(s)						
9.	SITE OR AREA		Major cities	rs.							
10.	MAJOR PROPOSED PR	OJECT(S)									
The me urb Th	e study suggested measur asures to improve the cap can planning and improve the proposed center will be ulalongkorn Univ., Asian d R&D. Major facilities a	es to strengthen to ability of the DT ment.  e attached to the I Institute of Tech	CP in planning of the plan of	ng, implement ork with the N others. Major a	ting and resea	egional Admi	posed inistrat	the establishment	nent of	a center for pror	noting

ASE THA/S 604/88 Other Studies

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

Utilization of Outputs:

(FY 1997 Domestic Survey)

Outputs of the study are being utilized for urban planning.

(FY 1997 Overseas Survey)

The outputs of the study have been utilized for elaboration of the 8th National Economic and Social Development Plan.

(1) Construction of Training Center (15th-Story)

Finance:

Government Fund (Construction cost: 80 mil.Bahts)

\*It is planned to receive the assistance (equipment, facility) from the Ministry of Construction of Japan.

\*The Preparation to open the Center is made.

(FY 1997 Domestic Survey)

Project type technical cooperation.

(2) Others

(FY 1993 Overseas Survey)

The planning technique appeared in the manual has been utilized in various division of DTCP.

The Thai Government requested the Japanese government for the technical cooperation for the development study on the land re-adjustment project.

The land re-adjustment project, etc. have been in progress.

(FY 1993 Overseas Survey)

A JICA expert was dispatched to DTCP.

(FY 1997 Overseas Survey)

Rama 9 Land Readjustment Pilot Project has started in 1993.

# STUDY SUMMARY SHEET (M/P)

Compiled Mar.1991 ASE THA/A 103/89 Revised Mar.2008

1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Water Managen	nent System and Monitoring Program in Chao P	hraya River Basin			
3.	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY M/P			
5.	COUNTERPART AGENORIME OF DEVELOPME		Royal Irrigation Department				
	PRESENT COUNTERPA						
6.	OD HECKENIES OF THE	To formulate a master plan for efficient and proper management of water resources through evaluation of potential water resources and water availability for agricultural development.					
7.	CONSULTANT(S)	Sanyu Consultants Inc. Taiyo Consultants Co., Ltd.					
8.	STUDY PERIOD	Jan.1987 ~	Mar.1989 26month(s)				
	SITE OR AREA	Whole Chao Phraya Basin					
10.	MAJOR PROPOSED PR	OJECT(S)					

- 1. Water Management Model Project (6 sites, 786 million bahts for 5 years)
- 2. Communication System Improvement (radio equipment, 485 mil.bahts for 3 years)
- 3. Monitoring System Improvement (hydrology equip.& facil. 1,182 mil.bahts for 3 years)
- 4. Data Control System Improvement (199 mil.bahts for 3 years)
- 5. Irrigation and Drainage System Improvement (18 billion bahts for 20 years)
- 6. Study on Comprehensive River Basin Development (not costed) Reviews of existing plans and reformulation of water resource development plans:
- (1) Bang Pakong River Basin Plan, (2) Upper Pasak River Basin Plan,
- (3) Groudwater Development Plan (Phichit and Sukhothai),
- (4) Kwai Noi River Basin Plan, (5) Yom River Basin Plan,
- (6) Kok-In-Yom-Nan Diversion Plan, (7) Salween River Basin Plan,
- (8) Sakaekrang River Basin Plan, (9) Wang Thong River Basin Plan,
- (10) Maeklong-Chao Phraya Diversion Plan,
- (11) Lower Ping River Basin Plan (Tak-Kamphaeng Phet Area Development),
- (12) other related development plans
- 7. Study on a Crop Diversification Promotion Center (not costed) Crop-Water relations and marketing & price information

ASE THA/A 103/89 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

# Description:

The water management Model Project will be conducted on technical cooperation scheme.

The guideline for the rest of the project will be decided after the result of Model Project.

(1)Water Management System Project

Finance:

(FY 1999 Overseas Survey)

JICA & Thai Government 604 mil. bahts

Implementation Period: 1999-2004

\*Difference with JICA's proposal: Proposed project cost(786 mil.bahts)

(FY 2000 Domestic Survey)

The construction has not been commenced because of the lack of the local budget.

(2) Telemetering and Data Communication System

Finance:

(FY 1999 Overseas Survey)

Own fund 220 mil. bahts

\*Contents: D/D, installation of telemetering, and data communication system of the selected sites in Chao Phraya Basin.

Impentation Period: 2000-2002 (FY 2000 Domestic Survey)

D/D has been conducted, however, the construction has not been commenced because of the lack of the local budget.

Project-Type Technical Cooperation

Apr.1990~Mar.1997 "Irrigation Engineering Center Project Phase-II"

\*The telemetering monitoring system was introduced at the site proposed in the water management model project as a part of this Technical Cooperation.

### Situation:

(FY 1996 Domestic Survey)

The implementation of the monitoring system enables to conduct the flood watch by monitoring irregular water flow in the Chao Phraya River, etc. After the completion of this M/P, the Irrigation Engineering Center examined the proposals. As a part of water management system improvement project, the stream analysis at the upperstream, the irregular stream analysis in canals and the examination of the amount of irrigation water were conducted. Other proposed projects will be incorporated into related projects which are to be implemented with annual budget.

(FY 1996 Overseas Survey)

RID has the Third Country Training Programme on "Irrigation Systems for Sustainable Development". The Course will be held once a year from FY 1996 to 2000, subject to annual consultations between both Governments. And RID has a request of the project-type technical cooperation named"Modernization of Irrigation and Drainage Systems Management for Sustainable Agricultural Development".

# (FY 1996 Domestic Survey)

Concept of this M/P is utilized for improvement and rehabilitation of each system at Chao Phraya river basin.

It is impossible to grasp the situation of each construction because whole area is vast.

# STUDY SUMMARY SHEET (M/P)

				Compiled	Mar.1991
AS	SE THA/S 105/8	89		Revised	Mar.2008
1.	COUNTRY	Thailand			
			tions Development		
2.	NAME OF STUDY	Telecommunica	nons Development		
	SECTOR	Communication	s & Broadca / Telecommunication 4. TYPE OF STUDY M/P		
5.			Telephone Organization of Thailand		
			(Corporate Planning Office)		
	COUNTERPART AGEN	CY AT THE	(corporate ramming critica)		
	TIME OF DEVELOPME	ENT STUDY			
	PRESENT COUNTERPA	ART AGENCY			
		To formulate a l	ong term development plan for the period from FY 1993 to FY 2007 in Thailand.		
		10 ioiiiuiate a i	ong term development plan for the period from 1.1 1993 to 1.1 2007 in Thanand.		
6.	OBJECTIVES OF THE				
٠.	STUDY				
		NTT Internation	al Corneration		
_	CONCLUENT ANTICO	IVI I IIICIIIauoi	iai Corporation		
7.	CONSULTANT(S)				
	CONTRACT PROPERTY	Sep.1988 ~	Dec.1989 15month(s)		
8.	STUDY PERIOD	~			
		TT 1 C.	1 77' 1 771 '1 1		
		Whole area of t	he Kingdom Thailand		
_					
9.	SITE OR AREA				
10.	MAJOR PROPOSED PR	OJECT(S)			
1 T	o install 4 345 thousand	new main telepho	one lines within 15 years from FY 1993. and have total 6,168 thousand lines at the end	1 of FY 200	7 To
				10111 200	7. 10
шц	prove telephone density in	rom 5.2 at the end	d of FY 1992 to 10.7. To meet the telephone demand at the end of 1997.		
2.T	o make existing network	fully digitized to	provide enhanced telecommunications services such as ISDN all over the country at	the end of I	FY 2007.
3 Т	he outline of the 15-year	telecommunicati	ons network expansion plan is as follows:		
	switching systems:4,491				
2)t	ransmission systems:205	systems are to be	e installed for the long-distance;189 fiber optical systems(FOTS) for Bangkok Metrop	olitan area	and 511
FO	TS and radio transmissio	n systems for the	Provincial area as for the spur rout transmission system.		
		•	housand pairs are to be expanded and		
3)(	outside plant(OSI). local	cables of 0,000 t	nousand pairs are to be expanded and		
4.1	billion Baht is required a	as for the rehabili	tation of OSP.		

ASE THA/S 105/89 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

\*Related Development Study

"Study on Regional Development Plan for Telecommunications

Networks in the Bangkok Metropolitan Area M/P+F/S (THA/S 214B/92)"

Apr.1990 Based on the suggestion made in M/P, the Thai government requested the Japanese government for the implementation of the study.

Jul.1991-Oct.1992 Implemented

Seventh Five-Year Expansion Plan (1992-96) BOT project

The Thai government has decided to adopt the BOT scheme to finance the plan and, subsequently, to undertake the smooth implementation of the project. Telecom Asia Co. will be in charge of two million lines in the Bangkok Metropolitan area and Thai Telephone and Telecommunications Co. will be responsible for one million lines in the provincial area.

This study suggested the future privatization of TOT in order to undertake the smooth implementation of telephone line expansion projects. It is said that the Thai government decided to apply the BOT scheme as the first step toward the privatization of TOT.

This study report has been utilized in the formulation of TOR to select the contractors as well as database.

(FY 1997 Overseas Survey)

Following projects are implemented or planned by TOT.

(1) The Rural Long Distance Public Telephone Project 1992-1996

Finance: ADB,TOT Bond

1.Stage I

To install the rural public telephone in 35,000 tumbols and 1,000 important places

- 1) TDMA System: 3,509 stations have been installed completely. 3,417 stations are already occupied.
- 2) Satellite System: 500 stations(1,000lines) are occupied already.

2.Stage II

To install the rural public telephone for 25,000 lines

1)The system have been completely founded in 4,003 tumbols and already occupied in 1,241 places. 2)To install the systems in 1,884 tumbols(5 lines per tumbol) they have been installed completely in 1,584 tumbols and already occupied in 1,1176 tumbols.

(2) The Telephone Service Development Project 1995-1999

Finance:TOT,Jarkee

1.The Network Expansion Project of TOT 1995-1998

- 1-1.To Install Switching Equipment of Transit Exchanges with CCS.No.7 System (8 units in Metropolitan and 18 units in Provincial Areas): Currently, 8 exchanges and 10 units are occupied. Entirely, 9 exchanges and 11 units have been installed and dued in the inspection process.
- 1-2.To install Transmission Equipment of optical fiber and microwave equipment on SDH network(29 exchanges in Metropolitan Areas, 14 routes for optical fiber and 6 routes for microwave in Provincial Areas): In the procurement process.
- 2.Replacement of Analog to Digital System Project
- 2-1.Switching Equipment(to replace analog exchanges for 468,374 lines, to install new digital exchanges for 496,640 lines): 92 exchanges, 287,744 lines have been occupied.
- 2-2.To improve the transmission equipments and replace the analog transmission systems that are PCMs and install Optical fiber in multimode for 24 routes in provincial areas.: In the implementation process.
- 2-3. For the outside plants, link the existing cable to the new MDF: In the implementation process.
- 3. The Rehabilitation Project 1995-1997

To improve and change all of the deteriorated cables,drop wires, cabinets and other equipments for 251,500 pairs-km both in the metropolitan and provincial area. : 127 exchange have been installed completely.(52.26% actived)

(3) The Short Term Telephone Expansion Project 1996-1998

Expansion of telephone lines by TOT(200,000 lines in metropolitan area and 600,000 lines in provincial area): In the implementation process

(4) The Rural Long Distance Public Telephone Project at the Village level 1996-1998

(i)To install the rural public telephone on the coverage for 3 lines per village. (ii) This plan covered 43,000 villages and 2,000 significant places.

(a)TDMA systems have been installed in 1,845 villages. (b)Satellite systems have been installed in 7,471 villages. (c) TDMA,CDMA and WLL systems will be installed in the 15,311 villages. (In the procurement process) (d)1,000 lines of NMT 470 MHz systems are in the renewal process. (e)to install new cables in 4,790 villages

(5) The Personal Digital Cellular 1500 MHz Project

Phase 1/To provide services in metropolitan and surrounding area, installing 1 exchange and 182 radio base stations.

Phase 2/To install 1 new exchange and 137 radio base stations in the province with high density population.

Phase 3/To install 356,000 lines and add 279 base stations for expanding services to cover all provinces and the main highways throughout the country.

-- In the process of ministry consideration(wait for decision from MOTC)

(6) The one-million telephone lines expansion Project 1998-2002

To expand basic telephone services (200,000 lines in metropolitan area and 800,000 lines in provincial area). In the process of cabinet considerations with telecom act.

(7) The Wireless Local Loop Service(WLL): In the process of cabinet considerations with telecom act.

Situation:

(FY 1996 Domestic Survey)

The implementation of the proposed projects will be decided in the BOT-financed projects.

(FY 1996 Overseas Survey)

TOT has been implementing proposed projects of M/P and Regional Development Plan, while taking situation, budget, etc. into consideration.

(FY 1997 Domestic Survey)

Regarding the improvement of management and privatization of TOT proposed by this study, Thai government approved the M/P on liberalization of

Telecommunications in November 1997. The contents of M/P are privatization of TOT and CAT, and liberalization of telecommunications system by 2006.

(M/P+F/S)

Compiled Mar.1991

**ASE** THA/A 203B/89 Revised Mar.2008 1. COUNTRY Thailand Sebai-Sebok Basin Development Project 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General 4. TYPE OF STUDY M/P+F/S Agriculture RID (Royal Irrigation Dept.), Ministry of Agriculture and Cooperatives COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY Preparation of a basin-wise agricultural development plan and feasibility study of the priority projects. **OBJECTIVES OF THE** STUDY Sanyu Consultants Inc. 7. CONSULTANT(S) Naigai Engineering Co., Ltd. Sep.1988 Nov.1989 14month(s) 8. STUDY PERIOD Sebai-Sebok-Tang Lung Rivers' Basins in Ubon Ratchathani and Yasothan of Northeastern Thailand<M/P> Priority areas in the basins of Sebai, Sebok and Tang Lung Rivers<F/S> 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) <M/P>Major agricultural infrastructural development Projects: 1. Short-term Plan (1990 - 1996) No.of projects Irrig.Area (ha) Cost (mil.yen) Medium-size water storage 14 8,360 18,750 Pumping stations (Pak Mung) 7 5,400 1,880 Medium-size rehabilitation 5 5,090 390 Total 26 29,240 10,630 2. Medium-term Plan (1996 - 2006) Medium-size water storage 12 7,260 5,640 Small-size water storage 87 4,350 1,560 Small river diversion 40 2,600 1,040 Pump stations 41 4,030 1,560 Total 180 18,240 9,800 <F/S>The Study examined the feasibility of five priority projects selected from 14 medium-size water storage projects proposed in the Short-term Development Plan. River Basin Project Irrig.Area(ha) Cost(mil. yen) 1,100 Laem S---Sebai 1.130 2,600 2,410 H---K----K--Sebok H---K---Pak Wang Sebok 960 1,220 H---N--K-----2,100 2,120 Sebok H---S----Tang Lung 920 1,610

セバイ・セボック流域開発計画

7,670

8,490

Total

ASE THA/A 203B/89 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Although it was planned to implement the project during the period of the Seventh Five-Year Plan (1991-96), it has not been commenced due to the problems on designing or environment problems.

RID has various projects to be implemented. Because this is a relatively new project, the project implementation will be after 1997 at earliest.

## (FY 1996 Overseas Survey)

The reasons that the project was not undertaken during the period of the Seventh Five-Year Plan may be project's priority and lack of man power(engineer)in RID.

## Situation:

## (FY 1996 Domestic Survey)

At present, five projects along Sebai basin and two projects along Sebok basin have been completed/implemented. Although some of the proposed projects of this Study may be incorporated into these projects, it can't be confirmed because the project names are changed once a while.

# (FY 1997 Domestic Survey)

RID has no schedule to materialize the proposed projects.

DECP is implementing pump irrigation (Con Chi Mung Project) by constructing regulator at a mouth of river.

## (FY 1997 Overseas FU Survey)

Proposed projects have been put in the list of the Five Year Plan of RID. Small-size irrigation project proposed by this study is being implemented by RID budget. The project of the 5 medium scale sites are delayed because the result of JICA study showed that rate of economic return is very low. Only the small scale sites proposed by JICA study were implemented.

According to the report of Irrigation Regional Office 5 there are a number of local people do not agree with this project.

# (FY 1999 Overseas Survey)

Medium-size Water Storage Project is still suspended due to the land acquisition problem. In order to adapt the study to the changing socio-economic condition of the country, an update study will start from FY 2000.

# (FY 2000 Domestic Survey)

As for the small-size irrigation project, RID has been conducting the design, construction and management by themselves.

(M/P+F/S)

Compiled Mar.1991

A	SE THA/S 2	09B/89			Revised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Medium to Lon	g Term Improvement/ Management Plan of Road and	Road Transport in Bangkok		
3.	SECTOR	Transportation	/ Urban Transportation	4. TYPE OF STUDY M/P	+F/S	
COUNTERPART AGE TIME OF DEVELOPM 5.			Bangkok Metropolitan Administration (BMA)Mediu Ring Road	nm and long - term road plan A	rea within the	he, Outer
	PRESENT COUNTERP	ART AGENCY				
Medium and Long-term road plan (M/P). Area traffic control (ATC) system (F/S). Common utility do  6. OBJECTIVES OF THE  STUDY					duct (CUD)	) system.
7.	CONSULTANT(S)	Yachiyo Engine ALMEC Corpo				
8.	STUDY PERIOD	Nov.1988 ~	Mar.1990 16month(s)			
	9. SITE OR AREA  Middle Ring Road. <f s=""></f>					
<n 1) lin (2) <f< th=""><td>king Phet Kasem and SSI Ordinary Roads (44 proj /S&gt;</td><td>vays (12 projects E Expressway li ects) 2) Bus-way</td><td>including following 3 projects) Expressway linking nking Nonchaburi and Bang Kapi ys (13 projects)</td><td>Thonburi-Bang Su-Ramkhamh</td><th>ndeng Expro</th><th>essway</th></f<></n 	king Phet Kasem and SSI Ordinary Roads (44 proj /S>	vays (12 projects E Expressway li ects) 2) Bus-way	including following 3 projects) Expressway linking nking Nonchaburi and Bang Kapi ys (13 projects)	Thonburi-Bang Su-Ramkhamh	ndeng Expro	essway
1. 3	Stage I 143 intersections State II 92 intersections Frunk line CUD1,200	(CUD)Case S	Study			

ASE THA/S 209B/89 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

<M/P>

Upon the request of BMA, IECA dispatched a preliminary study team to undertake necessary studies in order to promote the bus way project. Based on the report of the IECA study, BMA intends to prepare an official request for the grant aid to implement the project.

<F/S>

(1)ATC

1.Stage I

Subsequent Studies:

Mar.- Nov.1990 D/D and preparation for tender documents conducted under the JICA study "Area Traffic Control Project in Bangkok".

Finance:

Australia (FY 1997 Domestic Survey)

Construction:

Oct.1995 Installation scheduled was completed (expanded from the proposed 143 intersections to 146 intersections)

2.Stage II

Subsequent Studies:

Jun.1996 D/D scheduled was commenced (expanded from the proposed 92 intersections to 226 intersections)

Finance:

Australia (FY 1997 Domestic Survey)

(2)CUD

Finance:

Australia (FY 1997 Domestic Survey)

# (3)Exclusive Road for Automobiles

The construction of an exclusive road for automobiles utilizing San Saep Canal, as proposed in the Road Network Plan, has been decided to be implemented with BOT scheme. The negotiation with interested private contractors are now in progress.

(4)Bus Way

The project has not been implemented, however, the introduction of bus-lanes has been carried out.

(5)CUD

(FY 1994 Domestic Survey)

The study results of CDU have been widely utilized.

(FY 1995 Overseas Survey)

The preliminary study has been undertaken by a Japanese consulting firm.

Detail

(FY 1993 Overseas Survey)

Jun.1991- Mar.1994 Dispatch of a JICA expert

This M/P was utilized to formulate "Fourth Development Plan of BMA". Many of the proposed projects have been implemented.

(FY 2000 Overseas Survey)

M/P review study is conducted.

(M/P+F/S)

Compiled Mar.1991 **ASE** THA/S 210B/89 Revised Mar.2008

1.	COUNTRY	Thailand								
2.	NAME OF STUDY	Provincial Water	Provincial Water Supply Projects							
3.	SECTOR	Public Utilities	/ \	Vater Supply		4.	TYPE OF S	TUDY M	I/P+F/S	
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  5.  PRESENT COUNTERPART AGENCY		Provincial Wa		ority					
	OBJECTIVES OF THE STUDY	1)Preparation of 2)To conduct F/						ailand.		
7.	CONSULTANT(S)	Nippon Jogesui	do Sekkei Co., l	Ltd.						
8.	STUDY PERIOD	Jul.1988 ~	Mar.1990	20month(s)						
	SITE OR AREA  MAJOR PROPOSED PR	Patum Thani &	Prachatipat, Ph	uket, Su Ngai	Golok Tieren en e					

<M/P>

- (1) Patum Thani & Prachatipat: Raw Water Intake, Water Treatment Plant, Distribution Reservoirs, Distribution and Transmission Pipeline (283,000 m3/day)
- (2) Phuket: New Water Treatment Plant, Dam, Distribution Reservoirs, Transmission Pipeline
- (3) Su Ngai Golok: Raw Water Intake, Water Treatment Plant, (9,400m3/day) Transmission Pipeline (13,000m)
- (4) Phang Nga: Raw Water Intake, Transmission Pipeline (21,300m)
- (5) Takua Pa: Raw Water Intake, Water Treatment Plant (4,300m3/day), Transmission Pipeline
- (6) Thung Song: Water Treatment Plant, Raw Water Intake, Transmission Pipeline

(1)Patum water & Prachatipat; Phase I: Raw water intake, water treatment plant(141,500cu.m/day), 8 distribution reservoirs(47,250cu.m), distribution and transmission pipelines

Phase II: Raw water intake, water treatment plant, distribution reservoir and pipeline

(2) Phuket; Phase I: Khlong Bang Yai area, coastal resort area

Phase II: 3 other systems

(3)Su Ngai Golok; Raw water intake ,treatment plant(9,400 cu.m/day), distribution reservoirs and transmission pipeline

ASE THA/S 210B/89 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

(1)Patum Thani & Prachatipat

Subsequent Studies:

Dec.1993~May 1995 F/S review study financed by ADB grant aid in order to assess the possibility to privatize the project.

D/D scheduled to be implemented with PWA's own fund (FY 1993 Overseas Survey)

\*The name of the Project "Patum Thani & Prachatipat" was changed to "Patum Thani & Rangsatt" Project. The privatization of this project was decided and its contractor has been pointed out. However, due to the unclear procedure in the process of the contraction, the Ministry of Interior has refused to accept the decision (Sep. 1995).

Under the privatization, this project will be implemented that a private sector undertakes the intake and purfication of water and PWA purchases the purified water.

Finance:

(FY 1997 Overseas Survey)

BOT

Construction:

Contractor/ Pathum Thani Water Co., Ltd.

\*Contents: construction of raw water intake, treatment plant and facilities, water storage reservoirs and pumping stations and distribution mains

(FY 1997 Overseas Survey)

Mar.1998 to be completed.

(FY 1999 Overseas Survey)

Oct.1998 Completed

Technical Assistance:

(FY 1997 Overseas Survey)

Sep.~Dec.1997 Study was conducted to assess the privatization of distribution system, granted by the World Bank.

## (2)Phuket

Subsequent Studies:

Dec.1993~May 1994 F/S review study financed by ADB grant aid in order to assess the possibility to privatize the project

\*In June 1995, the privatization of the project was decided. However, it is unknown how the privatization will be promoted. (FY 1995 Overseas Survey)

Finance:

(FY 1997 Overseas Survey)

BOT (now in process of selection of investor)

(FY 1999 Overseas Survey)

BOT scheme was cancelled in 1998 due to the nonresponsiveness of the investors. However, in order to cope with the increasing demand for water supply, PWA singed a 10-year BOO contract with Require Construction Ltd. in Nov. 1999, to provide 10,000m3 per day of water supply to serve the people at Patong, Kata and Karon areas. Construction:

(FY 1999 Overseas Survey)

~Oct.2000 Under construction

(3)Su Ngai Golok

Subsequent Studies:

1994~1995 D/D with own fund of PWA

Finance:

Government budget (in FY 1995 103.41 mil.Bahts)

\*It is at the stage of tender (FY 1995 Overseas survey)

Construction:

(FY 1999 Overseas Survey)

Jul.1996~Dec.1998 Completed

Contractor/ M.Consolidated Co., Ltd.

\*Contents: construction of raw water intake, 400 m3.hr. treatment plant, 4000m3 clear water tank, clear water pumping house, raw water transmission pipeline, distribution pipeline(20.5km)

(4)Thung Soung

Subsequent Studies:

1996 D/D scheduled to be implemented with the government fund (75%) and the PWA fund (25%). (Consulting firm: Local Consultant)

Finance:

75% of the project cost will be financed by the government budget (in 1996 98.82 mil.Bahts) and the remaining 25% will be funded by PWA.

FY 1998 Government subsidy 101.352mil.Bahts

(FY 1997 Overseas Survey)

Tender shall be carried out.

Construction:

Contractor: Charoensaengmanee Partner, Ltd.

\*Contets: construction of raw water intake, 300m3/hr. treatment plant, 2,500m3 clear water tank, water pumping house, transmission main(19km), distribution pipeline(18.5km)

(FY 1999 Overseas Survey)

Sep.1998~Mar.2000 85% of the construction work has completed. Installation of pumping sytem only remains.

**(F/S)** 

Compiled Mar.1991

AS				Revised Mar.2008
1.	COUNTRY	Thailand	ater Development Project on Chantaburi River Basin	
2.	NAME OF STUDY	Agriculturar wa	ater Development Project on Chantaburi River Basin	
	SECTOR	Agriculture	ν υ	4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPMI		Royal Irrigation Department, Ministry of Agriculture and	d Cooperatives (MOAC)
	PRESENT COUNTERP.	ART AGENCY		
Feasibility study on water resources development plan within the subject river basin and irrigation plan for  6. OBJECTIVES OF THE STUDY				
7.	CONSULTANT(S)	Sanyu Consulta Pacific Consult NHK Integrated	ants International	
8.	STUDY PERIOD	Mar.1988 ~	Jul.1989 16month(s)	
	SITE OR AREA		aantaburi River Basin (East Coast)	
The	MAJOR PROPOSED PROPOS		fruit production by controlling the unfavorable effects of	occasional droughts and water shortages during the
K K	Storage Dams: Type Cap Thlong Ta Liu Dam: rock Thlong San Sai Dam: hor Diversion Weir: water in	k-fill 35.85 mill mogeneous earth	10.55 16.2 571,000	
3. <b>v</b>	Water Conveyance Pipeli	ine: Length 111.6	5km, dias. 350mm - 1,600mm	
4. I	Main Pumping Stations: (	3 places (dia.150)	mm, 200mm, and 250mm)	

ASE THA/A 313/89 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

(1)Khlong San Sai Subsequent Studies:

1994 D/D commenced

Finance:

Own fund 273 mil.B

Construction:

1994 Commenced 1997 completed

Construction Traider / Local Traider

Operation & Maintenance:

RID is in charge.

Effects:

(FY 1999 Overseas Survey)

The stored water have been released for farmers since 1999. It is apparent that the demand to use water is very high.

(2)Khlong Ta Liu

Subsequent Studies:

(FY 1996 Domestic Survey)

A part of the targeted area is classified as 1a district, for which the restirction on land use is imposed. Thus, it is considered that the study review should be implemented. (FY 1997 Domestic Survey)

D/D and EIA have been implemened by RID (95% has been completed)

(FY 1997 Overseas Survey)(FY 1999 Overseas Survey)

F/S Review is being conducted.

(FY 2000 Domestic Survey)

D/D has been completed, however, the construction has not been commenced because the part of the targeted area was designated as the preservation area for wildlife by the Forest agency.

# Detail:

(FY 1991 Overseas Survey)

The project is integrated into the Seventh National Development Plan (1992-1996).

(FY 1997 Domestic Survey)

Implementation of remaining project is not clear because of budget squeeze resulted from economic confusion.

**(F/S)** 

Compiled Mar.1991

AS			2008				
1.	COUNTRY	Thailand  Purification of Klong Water in Bangkok					
2.	NAME OF STUDY	Purification of Klong Water in Bangkok					
3. 5.	SECTOR  COUNTERPART AGEN TIME OF DEVELOPME						
	PRESENT COUNTERPA	ART AGENCY					
		Urgent Klong Water Purification in Bangkok.					
6.	OBJECTIVES OF THE STUDY						
		Pacific Consultants International					
7.	CONSULTANT(S)	Tokyo Engineering Consultants Co., Ltd.					
8.	STUDY PERIOD	Dec.1987 ~ Feb.1990 26month(s) ~					
		Bangkok City Study Area 380 sq.km Population 3.7 milion					
9.	SITE OR AREA						
	MAJOR PROPOSED PR						
		provement for the Klong with the introduction of dilution water from the Chao Phraya River by remodeling the existing g	ates				
		for drainage only at present.  of Klong water in two regulating reservoirs to realize a net pollution load reduction and to abate water quality deterioration	n of				
	OI DI DI I	the dilution water introduction.	101				

ASE THA/S 322/89 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

(1)Rehabilitation of Pump Station, Dredging of Major Klongs, Embankment along the Klongs. Installation of aerator in Klongs, etc. (the covered area is 380km2). Two JICA experts were dispatched to the counterpart agency to promote the project implementation.

Subsequent Studies:

1993~1994 D/D (BMA fund)

Finance:

Own Fund 318 mil.Bahts

Construction:

1994~1997

(2) Construction of Masakan Pond and Lama IX Pond Lagoon

Subsequent Studies:

1992~1993 D/D

Study Cost/15 mil.B (government budget)

Finance:

1992 Government budget 318 mil.Bahts

Construction:

(FY 1996 Overseas Survey)

Expected to be completed in 1997.

\* JICA provided the aerators to be installed in the ponds.

Maintenance & Operation:

DDS is in charge.

Effects:

(FY 1999 Overseas Survey)

The most important effect was the improvement of water quality of klong water in Bangkok City. The removal of the color of klong water and its strog odor in dry seasons were effectively improved. Use of klong water for living has increased.

Remaining Project:

(FY 1997 Overseas Survey)

Operation system and monitoring of water quality.

(F/S)

Compiled Mar.1991 **ASE** THA/S 323/89 Revised Mar.2008

1.	COUNTRY	Thailand							
2.	NAME OF STUDY	Measures to Promote the Container Handling System through Laem Chabang Port							
3.	SECTOR	Transportation	/ P	ort		4.	TYPE OF STU	JDY	F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	CY AT THE	OESB, NESDB,		SRT, BSAA				,
	PRESENT COUNTERPA								
6.	OBJECTIVES OF THE STUDY				system between La on the developmen		ng Port and Ba	angko	ok Port and the effective
7.	CONSULTANT(S)	The Overseas Coastal Area Development Institute Pacific Consultants International							
8.	STUDY PERIOD	Mar.1988 ~	Jul.1989	16month(s)					
	SITE OR AREA	Bangkok and Laem Chabang							
10.	MAJOR PROPOSED PR	OJECT(S)							

Construction of an inland container depot(ICD)

(Long-term) a 48ha ICD including 6 CFSs for handling 2.1 million tons of container cargo in 2001. (6 berths)

(Short-term) a 32ha ICD including 4 CFSs for handling 1.3 million tons of container cargo in 1996.

Stage 1: container berth 2, break-bulk berth 1, agri-bulk loading facilities (total 4 berths)

- 1) Facilities in each ICD: container freight station, container yard, container handling machines, gates, office, maintenance repair shop, parking space.
- 2) Administration Zone: main office 1,200sq.m, overtime cargo warehouse 2,100sq. m

3)Spur Line: The Lat Krabang ICD will be connected to the Eastern Line.

(radius at least 300m, length 500m)

ASE THA/S 323/89 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Delayed or Suspended

Implementing

Discontinued or Cancelled

# **Description:**

# Subsequent Studies:

1993-1994 D/D financed by the Thai government

(Site area was increased to 100ha)

# Finance:

Own fund

land Acquision Cost: 939 mil.Bahts
D/D : 37 mil.Bahts
Construction Cost : 874 mil.Bahts
Operation Cost : 7 mil.Bahts
Total : 1.857 mil.Bahts

# Construction:

# (FY 1995 Overseas Survey)

The construction of ICD including six CFSs, proposed in the long-term plan, was completed.

# Impact of Phase I

## (FY 2000 Overseas Survey)

After the completion of the phase I project, the volume of countainer transshipment was exceeding the anticipated volume by JICA study, which is 400,00-600,000 TEU. The growth n facilitating countainer was steadily increased approximately 20-30% per year.

Recently, the Ministry of Transportation has targeted to facilitate transshipment at 1,000,000 TEU.

The number of facilitated container is 106,703 in 1996, 291,295 in 1997, 439,661 in 1998, 581,078 in 1999, and 769,094 in 2000.

## Hereafter

# (FY 1995 Overseas Survey)

The operation of four out of six constructed CFSs will be started from January, 1996. The operation, including the procurement of equipment, is planned to be handled by a private company (ICFS).

# (FY 2000 Overseas Suervey)

Although phaseI project shows a highly satisfied figure, internal and external transportation are lacked. It is necessary to construct the routes such as Chao Khun Taharn, Bangplec, Meanburi, Interchange linking with motorway.

# Detail:

SRT is now in charge of the construction of ICD and has obtained the permission to construct it in Lard Krabang area. However, the increase of land prices has caused the project delay.

# (FY 1991 Overseas Survey)

SRT is planned to review the number of ICD to be constructed. This is because a private company started the operation of IDS closed to the project site.

# (FY 1995 Overseas Survey)

It is planned to construct a truck terminal adjacent to the project area.

# (FY 1997 Overseas Survey)

Phase 2 Stage 1 of port construction has been started in Nov.1997 and scheduled to completed in Feb.2001.

Consulting Firm / PATD

Contractor / Italian-Thai Development Co.

(fund from government budget and international loan)

(M/P)

Compiled Mar.1992

AS	SE THA/S 106/	<b>/90</b>			Revised	Mar.2008
	COUNTRY	Thailand				
2.	NAME OF STUDY	Traffic Operation Plan for Roads				
3.	SECTOR	Transportation	/ Road	4. TYPE OF STUDY M/P		
5.	COUNTERPART AGEN TIME OF DEVELOPM		Department of Highways Ministry of Transport and C	Communications		
	PRESENT COUNTERP	ART AGENCY				
6.	OBJECTIVES OF THE STUDY		ective traffic operation plan and to perform technology	transfer.		
_	CONCLUTE ANTE(C)	Central Consulta				
7.	CONSULTANT(S)	Oriental Consul	tants Co., LTD.			
8.	STUDY PERIOD	Feb.1989 ~	Jun.1990 16month(s)			
9.	SITE OR AREA	All trunk roads	managed by DOH			
a) l b) l c) l d) ' c) l d) ' c) l d) l d	Traffic Operation Plan  mprovement of Highway  nstallation of Traffic Lig  nstallation of Guard Fen- Construction of Bicycle I  Construction of Overpass  evement of Road Should  e Urban Area	ensus System Information System Engineering Spec  5 point Ints 110 point 1 point 2 anes 1 point 2 spec 8 point 2 lers in 1 set	cification of Traffic Safety and Traffic Control Devices ts ts ts ts ts ts ts	5		

ASE THA/S 106/90 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

# (FY 1995 Overseas Survey)

The newly introduced computer-networking system enabled the implementation of the proposed projects 1)Introduction of Traffic Census System, 2)Introduction of Traffic Information System, 3)Introduction of Road Inventory System and 4)Technical Guideline and Engineering Specification of Traffic Safety and Traffic Control Devices. However, no progress has been made concerning the organizational restructuring suggested by the JICA study.

## Detail

Mar.-Nov.1991 Implementation of "Traffic Operation Plan for Roads (follow-up) (1991)"

Based on this study result, the 1991 study aimed at the formulation of the effective projects on the traffic safety and the traffic operation and their implementation. The improvement of 24 intersections, the improvement of six road sections and the enactment of measures to protect the safety of pedestrians at 29 road sections were proposed.

# (FY 1992 Overseas Survey)

Integrating the recommendations made in M/P, the Seventh Five-Year Road Improvement Plan (Oct.1991-Sep.1996) was formulated. Approximately 2,400 mil.Bahts was allocated to the traffic safety projects.

## (FY 1993 Overseas Survey)

DOH established the Road Research and Development Center where few DOH staff are engaged.

# STUDY SUMMARY SHEET (M/P)

					(M/P)		Compiled	Mar.1992
AS	SE	THA/S 107/	90				Revised	Mar.2008
	COUN		Thailand					
2	NAME	E OF STUDY	Upper Central Region S	Study				
2.	NAMI	LOF STODI						
3. 5.	SECTO	OR	Development Plan  Nation		Regional Development Plan   4. TYPE OF STUDY Social Development Board (NESDB)	M/P		
		TERPART AGEN	CY AT THE		•			
		01 22 (22 01 11						
	PRESE	ENT COUNTERP	ART AGENCY					
			Preparation of regional	development plan	n toward the year of 2010.			
6.	OBJEC	CTIVES OF THE						
			International Developm		an			
7.	CONSI	ULTANT(S)	Pacific Consultants Inte	ernational				
8.	STUDY	Y PERIOD	Dec.1988 ~ Jul	.1990	19month(s)		-	-
			Ayutthaya, Saraburi, Lo					
			Area=16450 s.km, Pop	$a_{11}a_{11}a_{11}a_{11} = 3/4000$	0(1987)			
	CITE C	ND ADEA						
9.	SITE	OR AREA						
10.	MAJO	R PROPOSED PI	OJECT(S)					
			Development Package	(6 projects)				
			Core Development Packa					
			velopment Package (6 pr					
Hu	man Re	sources Develop	nent Package (3 projects	)				
* P	roject c	osts above were	ot calculated.					

ASE THA/S 107/90 M/P

PRESENT STATUS
Delayed
Discontinued

## **Description:**

The project area was designated as the target area in the Seventh National Economic and Social Development Plan commenced in October 1991 and the proposed projects has been integrated into it.

To promote the implementation of "Greater Saraburi Industrial Core Development Package" which is one of the high priority projects proposed by this M/P, the Thai government established the interministerial committee.

This area is a prime target area for Decentralization Policy in the present Eighth National Economic and Social Development Plan.

#### (1)Integrated Pasak River Basin Development

1.Pasak Dam Development

Jul.1992-Jul.1993 F/S by RID with the Government fund

(FY 1991 Overseas Survey)

Consulting Firm / TEAM Co., Ltd.

### Finance:

(FY 1997 Overseas Survey)

May.3.1994 Government budget 18,500mil.Bahts

\*Contents: Construction, railway, road, heritage conservation

#### Construction:

(FY 1997 Overseas Survey)

1994~2002 (Dam construction is to be completed in 1999)

## 2. Environmental Monitoring and Management Project

(FY 1996 Overseas Survey)

Small group training has been conducted in Ayuthaya as a pilot project.

Foreign assistance is desired because the public and private sectors, including NGO, must coordinate among them to give environmental information to local population for better understanding and awareness of environmental crisis. Besides, management of people's organizations should be underlined to enable the people to solve the problems by themselves through effective and appropriate technologies.

#### (2) Greater Saraburi Industrial Core Development

1.Suphan Buri-Talua-Sara Buni Highways

(FY 1994 Domestic Survey) Construction completed with the local fund.

2.Klong Sip Kao-Kaeng Khoi Railway

Feb.1990 L/A 8,158 mil.Yen

(Klong Sip Kao-Kaeng Khoi Railway Project)

(FY 1996 Overseas Survey) The construction was completed.

3. Sara Buri Industrial Estate

(FY 1994 Domestic Survey) Completed by the local fund.

## (3)Agro-Industrial Linkage Development Package (6 projects)

1. Agricultural Cooperative Development

(FY 1999 Overseas Survey) On-going.

2. Agricultural Products Distribution Center

(FY 1999 Overseas Survey) Small market places have been developed.

3. Distribution Center Complex and Agro-Industrial Park

(FY 1999 Overseas Survey) The development is slowly proceeding.

4.Secondary Order Center

(FY 1999 Overseas Survey) On-going process

5.Pasak River Collector Roads

(FY 1999 Overseas Survey) Completed by local fund.

6.Agro-tech Center

(FY 1999 Overseas Survey) Only small units have been developed.

## (4) Human Resources Development Package (3 projects)

1. Pilot Project of Compulsory Secondary Education

(FY 1999 Overseas Survey) The principle of compulsory education has just been put in the National Educational Development Act.

2.Strengthening of Provincial Non-formal Education Center

(FY 1999 Overseas Survey) On-going.

3. Audio-Visual System Development

(FY 1999 Overseas Survey) On-going.

(M/P)

Compiled Mar.1992

AS	SE THA/S 108/9	90				Revised	Mar.2008
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Development of	Development of Pattaya Area				
3.	SECTOR	Development Pl	lan /	tegrated Regional Development Plan 4.	. TYPE OF STUDY M/P	ı	
5. COUNTERPART AGENCE TIME OF DEVELOPMENT			Office of Eas	n Seaboard			
	PRESENT COUNTERPA	ART AGENCY					
		Master plan pre	paration for ur	n and tourism development.			
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	Nippon Koei Co Yachiyo Engine					
8.	STUDY PERIOD	Mar.1989 ~ ~	Jul.1990	16month(s)			
9.	SITE OR AREA	Pattaya Munici	pality (53.4 sq	n)			
(1)	MAJOR PROPOSED PR South Pattaya land reclar Port facilities: Construct	mation: Land rec		total area of 19ha. inal buildings, berth for hydrofoil and bo	oat yard.		
(3)	) Pattaya beach restoration: Beach expansion plan.						

(4) Ta-Van pier: Construction of pier in Ta-Van beach, Kolan island.

- (5) Sewerage project: Emergency improvement plan in Na Klua area and Jomtien area and expansion and improvement of existing facilities in Pattaya
- (6) Rainwater drainage project: 4 plans for improvement or constructions projects.
- (7) Water supply project: 2 stages development plans based on the water demand.
- (8) Solid waste disposal project: Construction of final disposal field.
- (9) Road project: Expansion and improvement of Pattaya 3 roads.

ASE THA/S 108/90 M/P

PRESENT STATUS
Delayed
Discontinued

## Description:

(1) South Pattaya Land Reclamation, (2) Pattaya Tourist Port, (3) Pattaya Beach Restoration

(FY 1997 Overseas Survey)

Subsequent Study: 1993~1994 F/S, D/D, EIA

Consulting Firm / TEAM, Scott Wilson Kirkpatrick, ASDECON

Study Cost / Government budget 60.5mil.Bahts

\*Difference with JICA's proposal: National Environmental Board has approved only 18.79 Rai for land reclamation area instead of 120 Rai proposed by JICA due to environmental concerns.

The project must be approved by the National Environmental Board. EIA process delays the project.

#### Finance:

(FY 1998 Domestic Survey) Own fund

(FY 1999 Overseas Survey)

Oct.1999 Government budget(400 mil. bahts)

\*Contents: South Pattaya land reclamation, Construction of pier for tourist boat and tourism facilities

Construction:

(FY 1998 Domestic Survey) A pier for sightseeing boats (proposed by JICA) was constructed. Contractor: local contractor

Situation after the completion:

(FY 1998 Domestic Survey) It has become safe to get on and off the boat going to Ko Lan Island, and congestion of the boats at the beach has been alleviated.

(FY 2000 Domestic Survey) The construction of the sewage system gave the ratchet effect on the ocean water pollution and the number of tourists became increasing. (4)Ta Van Pier, (9)Pattaya 3 Road

(FY 1997 Overseas Survey)

Subsequent Study: 1993~1994 F/S, D/D

Consulting Firm / PAL Consultant, Index International Group; Study Cost / 20.4mil.Bahts

Finance:

(4) 1994 Government budget 68.5mil.Bahts

(9) 1995 Government budget 234.7mil.Bahts

Construction:

(4)1994~1998: Contractor / U.C.D.International

Although PWD was responsible for the construction, the project was transferred to Pattaya City for management. The completion of the project has provided safety in embarking and disembarking a ship and, consequently, facilitates tourism.

(9)1995~1997: Contractor / Namprasert Construction ; It is expected to mitigate traffic congestion, enhance safety and promote tourism.

(5)Sewerage Project

(FY 1997 Overseas Survey)

Subsequent Study: F/S, D/D (Pattaya City, Pollution Control Department)

Finance: 1997 Environment Fund 1,799.45mil.Bahts

\*Components

Construction of drainage, sewerage (137,500m3/day); Construction: 1997~1999, Contractor / Summit Grade Ltd.

(6)Rainwater Drainage Project

(FY 1997 Overseas Survey)

Finance: 1992 Government budget 310.7mil.Bahts

\*Components: Na Jomtien Rd, Pratumnak Rd and Pattaya Canal (Soi Kasemsuwan), Potisarn Rd rehabilitation to improve drainage system.

Construction: 1992~1995

(FY 1996 Overseas Survey) Pattaya City was responsible for the construction and is in charge of management after completion. Road condition has been improved and flood problems have been mitigated.

(7)Water Supply

(FY 1997 Overseas Survey)

Subsequent Study:

1986~1987 F/S (Provincial Waterworks Authority); 1990~1991 D/D (Provincial Waterworks Authority)

Consulting Firm / NJS, Thai DCI; Study Cost / 25mil.Bahts Finance: 1994 Government budget 755mil.Bahts (Phase III)

\*Components : Construction of new water supply system (35,000cu.m/day)

Construction: Phase III is under construction.; Contractor / Samprasith Co., Ltd.; It is to solve water shortage problems for the next ten years.

(8)Solid Waste Disposal

(FY 1997 Overseas Survey)

Subsequent Study: 1994~1995 M/P, F/S, D/D (Pattaya City)

Consulting Firm / Pal Consultants, Creative Technology

Components: Collection, transportation and disposal system of solid waste

Remaining projects:

(FY 1998 Domestic Survey)

(1) South Pattaya Land Reclamation

Impeding factors: It is difficult to coordinate the tourist agencies (including hotels) that posses right and interests.

Future prospects: It seems that this project will be implemented when the tourist agencies become unbearable with the deteriorating environment.

(M/P+F/S)

Compiled Mar.1992 **ASE** THA/A 204B/90 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Agricultural Wa	Agricultural Water Resources Development Project of Bang Pakong River Basin					
3.	SECTOR	Agriculture	/ (Agriculture in) Gen	neral 4.	TYPE OF STUDY	M/P+F/S		
5.	COUNTERPART AGENTIME OF DEVELOPME	CY AT THE	Royal Irrigation Department, Mini	istry of Agriculture and C	Cooperatives			
	PRESENT COUNTERPART AGENCY							
6.	OBJECTIVES OF THE STUDY	Feasibility Stud	y for water resources development.					
7.	CONSULTANT(S)	Sanyu Consulta	nts Inc.					
8.	STUDY PERIOD	Sep.1989 ~	Sep.1990 12month(s)					
9.	M/P for Tha Lat River Basin, Chachoengsao Providence. F/S for Bang Pakong River Basin which encompasses four Provinces of Chonburi, Chachoengsao, Nakhon Nayok and Prachinburi  9. SITE OR AREA					sao, Nakhon Nayok and		
40	MALION PROPOSED PR	OTE CTE(C)		<u></u>	·			

## 10. MAJOR PROPOSED PROJECT(S)

M/P (target year: 2000)

- 1. 1st Stage: 3 sub-basins, 2 storage dams, 2 diversion weirs, agri.land dev.46,400ha
- 2. 2nd Stage: 2 sub-basins, 2 storage dams, agri.land dev. 66,400ha
- 3. 3rd Stage: 8 sub-basins, 9 storage dams, agri.land dev. 294,400ha

The feasibility study was undertaken on the most downstream area(Tha Lat River Basin) next to the Bangkok Economic Sphere. Bang Pakong River is a tidal river, and it is impossible to utilize river water in the downstream areas during the dry season because of the rising sea water.

1) Stage I: 14,300ha

Bang Pakong River-mouth Diversion Weir: length 170m, 5 gates (span 30m x height 10.6m)

Pumping Station: 17 cu.m/s, dia.1,500mm, 4 pumps

Main irrigation canals: left bank main 12km, right bank main 24km, other 0.7km

Drainage canals: 14km 2) Stage II: 28,200ha

Klong Si Yat Storage Dam: 396 million cu.m

Tha Lat diversion weir: length 33.5m, rehab. of rubber-type gates

Tha Lat irrigation dev.: rehabilitation of main (44km) and secondary canals Si Yat irrigation dev.: construction of main (45km) and secondary canals

ASE THA/A 204B/90 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

It is an urgent need to secure water sources both for irrigation and for industrial and domestic use in the Bangkok Metropolitan area.

(1) Construction of Bang Pakong River-Mouth Diversion Weir

Subsequent Studies:

1992 D/D (JICA)

"Bang Pakong Diversion Dam Project (THA/A 402/93)"

80% of the project site has been acquired.

(FY 1993 Overseas Survey)

Finance:

Own fund (240M/M:105 M/M for foreign currency and 135M/M for local currency--Total 132 mil.Bahts)

Construction:

Oct1996 started.

Nov.1999 completed (FY 1999 Domestic Survey).

Contractor/J.V of Nishimatsu Construction and Itar Thai

(FY 1998 Domestic Survey)

Operation and Management: RID will be in charge.

Effect: Effects on agriculture, fishery, industry, and water supply are expected.

\*Refer to "Bang Pakong Diversion Dam Project (THA/A 402/93)" for detail.

(2)Klong Si Yat (construction of dam and agricultural development)

Subsequent Studies:

(FY 1993 Overseas Survey)

1992~1994 D/D (RID), 1994~1995 EIA (RID)

Finance:

Government budget 4,016mil.Bahts (land acquisition is not included)

Construction:

<Whole Project> 1994~2002

<Construction of Dam>

Oct.1996 started

Dec.1999 scheduled to be completed (As of the end of 1997, 30% has been completed)

Construction Traider / Saga Construction (FY 1996 Overseas Survey)

(FY 1999 Overseas Survey)

Si Yat Dam: Construction of 95% has completed.

Irrigation & Drainage System: 15% was developed.

(3)Thandan Dam

Oct.1996 D/D (FY 1996 Domestic Survey)

(FY 1998 Domestic Survey)

Finance: Own fund

Project period: 1997 ~ 2003, Budget: 10,193 MB Construction: 1999 ~2003, Budget: 8,400 MB

(4)Klong Luang Dam

(FY 1998 Domestic Survey) EIA is underway with own fund. If it is feasible, D/D will be started.

(5)Huai Srmeang Dam

(FY 1998 Domestic Survey) D/D is underway.

(6)Huai Khrai Dam

(FY 1996 Domestic Survey) This dam was decided unfeasible. No plan has been made for implementation.

(7)Klong Nong Kaew Dam

(FY 1998 Domestic Survey) F/S is underway.

(8)Phraprong Dam

(FY 1998 Domestic Survey) Preliminary F/S is underway.

(9)Lanphrayathan Dam

(FY 1998 Domestic Survey) EIA is underway.

(10)Sainoi-Saiyai Dam

(FY 1998 Domestic Survey) EIA is underway.

(11)Klong Phrasathung Dam

(FY 1998 Domestic Survey)  $\,$  F/S and EIA are underway.

(12)Klong Banna Dam

(FY 1998 Domestic Survey) Preliminary Study is underway.

(13)Klong Rabom Dam

(FY 1998 Domestic Survey) F/S and EIA are underway.

(M/P+F/S)

Compiled Mar.1992 **ASE** THA/S 211B/90 Revised Mar.2008

1. COUNTRY	Thailand					
2. NAME OF STUDY	Sewerage and Drainage Improvement Project for Phuket Municipality					
3. SECTOR	Public Utilities / Sewerage 4. TYPE OF STUDY M/P+F/S					
COUNTERPART AGENTIME OF DEVELOPME  5.		Public Works Authority Ministry of Interior				
PRESENT COUNTERPA	ART AGENCY					
1)To develop a comprehensive master plan for sewerage and flood control system for Phuket Municipality; and 2)To provide a feasibility study for proposed master plan of sewerage and flood control system.  6. OBJECTIVES OF THE STUDY						
7. CONSULTANT(S)	Nippon Jogesui Nippon Koei Co					
8. STUDY PERIOD	Jul.1989 ~	Aug.1990 13month(s)				
9. SITE OR AREA  10. MAJOR PROPOSED PR	SITE OR AREA  Phuket Municipality, Thailand					
2)River Improvement in the Excavation: 33800 cub.m/ Embankment: 74400 cub.m Bridge Construction: 6 Others: Road-side U-shape <f s=""> 1)Sewerage: -Target Year : 2001 -D-Designed Sewage Flow: 18 -Outline of Facilities: Lengtl</f>	4500 cub.m/D (I tion Ditch Metho th of Sewer: 41 n: 10 Treatn n): .3km, Width = 1 Town: 1.3 km n/1.7 km; Revetr d, Drain Improve designed Populati 300 cub.m/D (Da h of Sewer: 14.31 ion: 4 Planed 4km, Width = 11 cub.m own: Excavation Revetment	ad, Drying Bed Ikm nent Plant: 1  3km, Excavation = 1500 thousand cub.m  nent: 0.8 km ement  con : 29600 aily Average) cm Treatment: 4  m,  n: 18400 cub.m  :: 10470 cub.m Bridge Reconstruction: 6				

ASE THA/S 211B/90 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

(FY 1991 Domestic Survey)

Phuket Island is well known in the southern part of Asia not only in Thailand. The pollution caused by the underdevelopment of sewerage becomes an serious problem. The urgent implementation of the project is expected.

Subsequent Studies:

Aug.1994~Apr.1995 D/D financed by PWA fund (11.3 mil.Bahts)

Finance:

(FY 1997 Overseas Survey)

May.1994 388.42mil.Bahts (PWA budget)

\*Contents

Drainage, Wastewater Sewer Treatment Plant

Service area is 4km2 (JICA proposed service area of 12km2)

Construction:

Apr.1995 Commenced

Nov.1996 Completed

Consulting Firm / Progress Technology Consultant, Act Consultant

Contractor / Phuket Consortium

Detail:

(FY 1993 Overseas Survey)

PWA will implement the project with the turn-key contract. PWA's budget constraints caused the reduction of designed sewage flow from the JICA proposal.

(FY 1997 Overseas Survey)

Phuket city is declared as water pollution control area by Ministry of Science, Technology and Environment.

Further countermeasure is to be taken by the municipality under MOSTE supervision.

Details after completion of the construction:

(FY 1999 Overseas Survey)

The municipality of Phuket will start the second project for total service area of 12km2 using budget of Ministry of Science, Technology and Environment.

(M/P+F/S)

Compiled Mar.1992 **ASE** THA/S 212B/90 Revised Mar.2008

1.	COUNTRY	Thailand								
2.	NAME OF STUDY	Bangkok Solid	Bangkok Solid Waste Management							
3.	SECTOR	Public Utilities	Public Utilities / Urban Sanitation 4. TYPE OF STUDY M/P+F/S							
	COUNTERPART AGENO			opolitan Administra Public Cleaning (D						
	PRESENT COUNTERPA									
6.	OBJECTIVES OF THE STUDY		Preparation of a master plan and feasibility study on priority projects. To study feasibility of sanitary landfill and nation plant.							
7.	CONSULTANT(S)	Pacific Consulta	EX CORPORATION Urban & Environment Planning, Research and Consulting Pacific Consultants International							
8.	STUDY PERIOD	Dec.1989 ~	Mar.1991	15month(s)						
9.	SITE OR AREA	Bangkok Metropolitan Administration Area								
10.	MAJOR PROPOSED PR	O.IECT(S)								

## <M/P>

- 1.1 Construction of Sanitary Landfill at Ram Intra
  - a)Place: A burrow pit at Ram Intra, b)Capacity: 1830000ton
  - c)Area: 15 ha., d)Construction Cost: \$18 million
- 1.2 Construction of Sanitary Landfill in the East Part of Bangkok
  - a)Place: East part of Bangkok (Not specified),
  - b)Capacity: 3,650,000 ton c)Area: 123ha,
  - d)Construction: \$36 million
- 2. Construction of an Incineration Plant
  - a)Place: The existing On Nut dumping ground
  - b)Capacity: 200t/d/unit \* 3 units = 600t/d
  - c)Gas cooling system: Water infection system
  - d)Construction cost: \$74 million
- 3. Improvement on Waste Collection System

- 1. Construction of Sanitary Landfill at Ram Intra
  - a. Place: A burrow pit at Ram Intra b. Capacity: 1830,000ton
  - c. Area: 15 ha. d. Construction Cost: \$18 million
- 2. Construction of an Incineration Plant
  - a. Place: The existing dumping ground at On Nut
  - b. Capacity: 200t/d/unit \* 3 units = 600t/d
  - c. Gas cooling system: Water infection system
  - d. Construction cost: \$74 million

ASE THA/S 212B/90 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

(M/P, F/S)

In October 1990 the Department of Public Cleaning (DPC) submitted an explanatory letter to the governor of the Bangkok Metropolitan Administration in order to facilitate the construction of a sanitary landfill and an incineration plant.

(1)Construction of Sanitary Landfill

(FY 1993 Overseas Survey)

Because it is difficult to acquire the land at Ram Intra, BMA is now examining the possibility to construct the transfer stations at Ram Intra, Nongkam and On Nut and to construct the sanitary landfills at Nokhon pathom and Chachoengsao.

(FY 1995 Overseas Survey)

The transfer stations have been constructed in Taling and under construction in Nong Kean. The preparation has been in progress in On Nut.

(FY 1996 Overseas Survey)

Both landfill sites in On Nut and Nong kean were closed. Presently, private entrepreneurs manage transfer stations and landfill sites and at least three entrepreneurs are in charge. BMA is responsible for the garbage collection and the transport of garbage to the transfer stations owned by private entrepreneurs.

(FY 1997 Domestic Survey)

Bidding for the most appropriate system of waste treatment in Bangkok (BOO scheme) was called in July 1997 and 6 companies have submitted proposal. (FY 1998 Domestic Survey)

BMA called for a tender for waste treatment facility in July 1997. Several companies submitted proposals and a Thai company was accepted. However, the project itself was cancelled due to the monetary and economic crisis.

BMA seems to consider requesting OECF loan to introduce the waste treatment facility. It seems that a tender will be called within the near future.

(FY 1999 Overseas Survey)

All sanitary landfill sites currently belong to private entrepreneurs. BMA is responsible for only collection of garbage and transport of garbage to the transfer station sites.

(FY 2000 Domestic Survey)

It is difficult to acquire the land for the sanitary landfill in Bangkok, therefore, BMA promotes to acquire the land by private entrepreneurs. In case of acquiring the sites outside Bangkok, it is difficult to plan to acquire the land as the BMA projects. However, the concept for the sanitary landfill proposed by this study is enough utilized. The possibility still remains to landfill the seaside area by BMA.

## (2)Construction of Incineration Plant

(FY 1995 Domestic Survey)

BMA called for a tender for E/S to construct an incineration plant with a capacity of 1,200t/day. BMA plans to finance a half with its own budget and the other half with the BOT scheme.

(FY 1995 Overseas Survey)

Oct.1993-Sep.1994 The construction of an incineration plant for hospital wastes at On Nut was implemented.

(Theoperation started from July 1995)

Oct.1993-Sep.1995 F/S for an incineration plant was conducted.

(BMA is expected to finance the project but if possible, it hopes to finance it with the BOT scheme.)

It is highly likely to construct a plan at On Nut where the open-dumping is on-going.

(FY 1996 Overseas Survey)

BMA is to construct two incineration plants with a capacity of 1,000t/day:one with the own fund and the other with the BOT scheme (Their capacity was 600/t/day respectively in the initial plan). An engineering consultant was appointed through the tender in 1996. B/D and the draw-up of an estimate have been conducted for the incineration plant which is to be constructed with BMA fund.

(FY 1999 Overseas Survey)

BMA has submitted Environment Impact Assessment(EIA) Report for approval to National Environment Board(NEB). Then after, BMA will propose the Report to National Economic & Social Development Board(NESDB) for final approval. After the approval of NESDB and of the Cabinet, a request for Japan's ODA Loan will be submitted to JBIC in 2000 at the earliest.

(FY 2000 Domestic Survey)

Based on this Study, BMA planned to construct the incineration plant with a capacity of 1,600t/day in On Nut. BMA conducted the survey by their budget at January 1999 and required Japan's ODA loan. However, as it is necessary to consider the political aspects for justifying the incineration, pre-SAPROF by JABIC has begun October 2000.

## (3)Improvement of Waste Collection Systems

(FY 2000 Domestic Survey)

Owing to the expansion of the collection materials, the waste collection ratio improved over 90%.

Improvement on the systems

(FY 2000 Domestic Survey)

No information

## Difference with JICA's proposal:

Adoption of BOO scheme for waste treatment project means that the project will not be implemented as proposed by JICA study(construction of 1 incineration plant and 2 sanitary landfill). The proposal which recommends that plant should be sanitary landfill, is taken into consideration.

\*Others: Compost Plant

(FY 1996 Domestic Survey)

It is said that the compost plant, which was constructed by BMA a few years ago, is still operated by BMA while the privatization of the plant was discussed. (FY 2000 Domestic Survey)

Because of the troubles on the contract, it seems that the compost plant in On Nut has stopped its operation since 1998.

(F/S)

Compiled Mar.1992

THA/A 314/90 **ASE** Revised Mar.2008 COUNTRY Thailand Sukhothai Integrated Agricultural and Rural Infrastructure Development Project 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General TYPE OF STUDY F/S Agriculture 5. Agricultural Land Reform Office (ALRO), Ministry of Agriculture and Agricultural Cooperatives COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY To make a F/S for Integrated Agricultural Development in Thung Sai Yat and Nong Khon Kaen in Sukhothai. **OBJECTIVES OF THE** STUDY Sanyu Consultants Inc. 7. CONSULTANT(S) Jul.1989 Jul.1990 12month(s) 8. STUDY PERIOD Thung Sai Yart (5,600ha) and Nong Khon Kaen (1,300ha) in Sukhothai Provic 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Thung Sai Yart Nong Khon Kaen (l) Construction of 14 places 8 places Reservoir (2.4 MCM) (0.32 MCM) (2) Irr./Drai. Canal 60.3 Km 31.7 KM (3) Farm Road 50.5 Km + 7.2 Km 21.1 Km + 3.8 Km(New + Rehabil.) (4) Rehabil. of Ext. 2 places (l.4 MCM) 2 places (0.38 MCM) Pond (5) Village Water 10 villages 5 villages (3,000 persons) (818 persons) Supply (6) Rural Electrification 399 households 50 households

スコタイ農村総合整備計画

ASE THA/A 314/90 F/S

PRESENT STATUS

Completed or In Progress
Completed
Partially Completed
Partially Completed
Implementing
Processing
Discontinued or Cancelled

## **Description:**

(1)Nong Khon Kaen

Finance:

Own fund (The project is listed in Action Program of Ministry of Agriculture and will be implemented gradually with regular budget)

Construction:

(FY 1996 Overseas Survey)

Dredged Sai swamp Mar.~May.1993 Dredged Tai swamp Mar.~May.1993 Dredged Noi canal (1km) Jan.~Mar.1995

Maintained 4 lateral roads (12.5km) In process for implementation.

(FY 1999 Overseas Survey)

Maintained 3 lateral road(8.3km) 1997 and 1999 Dredged a canal(3km) 1997 Dredged a swamp 1996

(FY 2000 Domestic Survey)

The construction has been conducting under the corporation among related agencies.

1993-2000: dredged 20 regulating pondage

1994-1995: dredged swamps 1995-1996: dredged a canal (3km)

1997: dredged a swamp

## (2)Thun Sai Yart

Finance:

Own fund (The project is listed in Action Program of Ministry of Agriculture and will be implemented gradually with regular budget)

Construction:

(FY 1996 Overseas Survey)

Dredged Wang-Thong-Daeng canal (3km) Mar.~May.1993

Dredged Sai-Yart canal (3km) Mar.~May.1993

Maintained road from Wang-Thong-Daeng to Ban-Lan-Ta Kia (7.3km)

Nov.1992~Jan.1993

3 wells for domestic consumption Sep.1995~Feb.1996

Construction of 2 reservoirs Aug.~Sep.1995

Maintained 3 lateral roads (10km) In process for implementation

Constructed Lan-Ta Kia dyke May.1994 Constructed dike and drainage Oct.~Dec.1996

Dredged Wang-Thong-Daeng canal (1km) Oct.~Dec.1996

Dredged Sai-Yart canal (2km) Oct.~Dec.1996

(FY 1999 Overseas Survey)

Constructed road(1.8km) 1997

Dredged 2 canals(11km) 1996 and 1997 Dredged a swamp 1996 Digged 3 community ponds 1996 and 1999

Drilled a well

1997 and 1999

## (FY 2000 Domestic Survey)

The construction has been conducting under the corporation among related agencies.

1993-2000: dredged 850 regulating pondage

1996: dredged a canal (1km)

2000: constructed the farm road(6.7km)

## (3)Rural electrification

(FY 1997 Domestic Survey)

Rural electrification has been mostly completed by PEA.

## Situation:

(FY 1997 Overseas Survey)

Procurement of fund for remaining components is difficult owing to economic situation in Thailand.

**(D/D)** 

Compiled Mar.1992

AS	SE THA/S 4	05/90				Revised	Mar.2008
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Area Traffic Co	ntrol Project in Bangkok				
	SECTOR	Transportation	/ Urban Transportation	4.	TYPE OF STUDY	D/D	
5.	COUNTERPART AGEN TIME OF DEVELOPME		Bangkok Metropolitan Administration (BMA)				
	PRESENT COUNTERPA	ART AGENCY					
	1	Detailed design	study & Preparing the necessary documents for ATC s	system			
6.	OBJECTIVES OF THE STUDY						
		Yachiyo Engine					
7.	CONSULTANT(S)	Fukuyama Cons	sultants International, Inc.				
8.	STUDY PERIOD	Mar.1990 ~	Oct.1990 7month(s)				
		Are	ea 31 sq.km in Central Bangkok				
9.	SITE OR AREA						
1) A 2) Q 3) T 4) 1 5) 5	MAJOR PROPOSED PRATC signalized intersection control centerThe confiransmission system and 143 local controllers and 5 CCTV cameras will be 67 intersections will be in	trol center will be communication be 460 vehicle detection provided at interse	ctors will be equipped.	comput	ter and peripheral d	evices etc. will be	e provided.

ASE THA/S 405/90 D/D

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

 $This \ project \ was \ developed \ from \ "Medium \ to \ Long \ Term \ Improvement/Management \ Plan \ of \ Road \ and \ Road \ Transport \ in \ Bangkok"$ 

### Subsequent Studies:

Aug.1992- June 1993 D/D (Review study ) financed by BMA (40 mil.Bahts)

## Finance:

BMA budget 227 mil.Bahts

## Construction:

1.ATC System

Stage I Installation scheduled to be completed in October,1995

(Expanded from the proposed 143 intersections to 146 intersections)

 $Stage\ II\quad D/D\ scheduled\ to\ be\ commenced\ in\ June\ 1996\ (Expanded\ from\ the\ proposed\ 92\ intersections\ to\ 226\ intersections)$ 

Stage III Examining 200 intersections

## 2.CCTV System

Installed at five points. This project is under the jurisdiction of the Police Department

## 3. Vehicle Detectors

Under the jurisdiction of the Police Department

(M/P)

Compiled Mar.1993

**ASE** THA/S 109/91 Revised Mar.2008 1. COUNTRY Thailand Toll Highway Development 2. NAME OF STUDY 3. SECTOR / Road TYPE OF STUDY M/P Transportation 5. Department of Highways, Ministry of Transport and Communications COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Study on the inter-city toll motorway network development. OBJECTIVES OF THE 6. STUDY Katahira & Engineers International 7. CONSULTANT(S) Nippon Koei Co., Ltd. Feb.1990 Jun.1991 16month(s) 8. STUDY PERIOD Whole of Thailand (Area:513,000 sq.km, Population: 55 million) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Construction of 4,300km inter-city toll motorway network. Phase 1 1991-1995 900km Phase 2 1996-2000 1,000km Phase 3 2001-2010 2,400km

ASE THA/S 109/91 M/P

PRESENT STATUS
Delayed
Discontinued

## **Description:**

About 600km inter-city toll motorways construction plan has been made in the 7th 5-year National Economic and Social Development Plan (1992-1996).

(1)Bangpong~Cha-Am Route and Lampang-Chiang Mai Route

Subsequent study:

(FY 1993 Overseas Survey)

F/S undertaken (JICA)

(Refer to "Inter-City Toll Motorway Project (S325/1994)")

(FY 1998 Domestic Survey)

JICA D/D on Lampang-Chiang Mai Route (stage I, Oct. 1996 - Mar.1997).

D/D on Bangpong~Cha-Am Route with own fund.

Finance:

OECF loan is to be provided after the completion of stage II of JICA D/D on Lampang-Chiang Mai Route.

(FY 2000 Overseas Survey)

Lampang-Chiang Mai Route was divided into 2 projects (Lampang-Lamphun: 60km, Lamphun-Chiang Mai: 39km).

The implementing agency was privatized and funded the projects...

Funds: total 26,980mil. Bahts: 21,330mil. (Lampang-Lamphun)+ 5,650mil(Lamphun-Chiang Mai)

Source: Privatization

(2)Other Routes

(FY 1997 Domestic Survey)

Subsequent study:

Sep.1998 D/D scheduled to be completed (ADB, 1.2mil.US\$)

D/D on outer Ring Road, Cross Route over Chaopraya.

Finance:

Aug.1998 (schedule) The 24th OECF loan (request will be submitted before April 1998)

(FY 2000 Overseas Survey)

1. Outer Ring Road

The implementing agency was privatized and funded the project whose name is "Southern Kanchanapisek Ring Road (Section: Suk Sawad -Bang Pli)" .

Funds: 12,100mil. Bahts Source: Privatization (Turnkey)

Date of pledge or approval: 28 March 2000

Contents of project: 6 lanes elavated highway (20km), 4 interchanges, toll system and building

2. Cross Route over Chao-Phraya

The implementing agency was privatized and funded the project whose name is "Cable Stayed Bridge across Chao-Phraya River".

Funds: 4,800mil. Bahts

Source: Privatization (Turnkey)

Date of pledge or approval: 28 March 2000 Contents of project: 8 lanes cable stayed bridge

(3)BOT scheme Project

(FY 1997 Domestic Survey)

1.Don Muang Toll Motorway (DOH)

Construction:

Sep.1997 Second Stage Start

2.Banna Banpakong Toll Motorway (DOH)

Construction:

Aug.1995~Aug.1998

Effect:

(FY 1997 Domestic Survey)

This road is a bypass road of ML-9 and Bangkok-Chombri toll road, and is a principal highway to contribute to development of eastern coast industrial area.

Situation:

(FY 1997 Overseas Survey)

The recommendations by the study have been incorporated into the 8th national economic and social development plan (1987-2001).

(M/P+F/S)

Compiled Mar.1993 **ASE** THA/A 205B/91 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Integrated Rural	ntegrated Rural Development of Salt Affected Land in Northeast Thailand					
3.	SECTOR	Agriculture	/ (	Agriculture in	) General	4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGENORIME OF DEVELOPME		Department of	Land Develop	oment, Ministr	y of Agriculture	e and Cooperatives	
	PRESENT COUNTERPART AGENCY							
		Formulation of a	a Master Plan a	nd economic e	evaluation of t	he pilot project.		
6.	OBJECTIVES OF THE STUDY							
7.	CONSULTANT(S)	Sanyu Consultar	nts Inc.					
8.	STUDY PERIOD	Mar.1990 ~	Oct.1991	19month(s)				
9.	SITE OR AREA	Amphoe Phra Yun, Changwat Khon Kaen, Norht-east Thailand						
10	MA IOD DDODOCED DD	OTEOTI(C)						

## 10. MAJOR PROPOSED PROJECT(S)

<M/P>Major project components

1) Irrigation Facilities:

Total gross area 3,715ha; 6 new weirs & rehab. of 11 existing weirs; 27 new ponds & rehab. of 3 existing pond; 50 pumps

- 2) Drainage Facilities: Drainage improvement (5,000ha)
- 3) Rural Road: 31km improvement & rehab. of 3 bridges
- 4) Rural Water Supply: 4 Villages (3,800 persons)
- Afforestation 583ha 5) Forestry:

Agro-forestry 15,830ha

- 6. Social Services: Training and recreation, Market facilities
- <F/S>The pilot area is selected to represent major development components which characterize the entire study area.
- 1) Irrigation facilities:

Two sites along Huai Yang (158ha and 166ha) and one site along the canal to Nong Khu Weir (57ha) salt-affected land 520ha

3) Rural Road:

Surface raising at 10 flooded places(total 1km); concrete drainage pipes (10 places); simple asphalt paving within 15 villages (total

- 4) Rural Water Supply: 4 Villages (3,800 persons)
- 5) Forestry & Social Services: Training and recreation, Market facilities
  - \*Project life of M/P and F/S is assumed 50 years.

ASE THA/A 205B/91 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Due to the policy change in ODA, in 1992 the Japanese government was determined to end the provision of a grant aid to Thailand.

## (FY 1992 Domestic Survey)

Since grant aid by Japanese Government is difficult, Thai government will finance this project. However, project-type technical assistance can be sought.

#### (FY 1993 Overseas Survey)

The pilot area was reduced to approximately 800ha from 4,500ha which was initially planned. DLD is now planning to implement the small trial project for rural development.

### (FY 1995 Domestic Survey)

DLD planned to implement the small trial project with a foreign loan, however, it has not made any progress. Currently, the Thai government is examining the possibility to promote the project with the own fund.

### (FY 1996 Overseas Survey)

Reclamation of severe salt affected land has been carried out by the cooperation between Japan Society for the Promotion of Science, the National Council of Thailand, Khon Kaen University and Department of Land Development (DLD) from 1995 to 1997 through the combination of engineering and revegetation methods.

DLD is requesting a support for a small pilot project from the Mekong River Committee.

D/D will be based on not only the results of this development study but also the results of other associated research studies of the project which have been implemented in cooperation with the Government of Japan.

### (FY 1997 Domestic Survey)

DLD has requested to the government to allocate budget for the project but government has not approved yet due to the financial constraint.

Based on the study, small-scale project is being implemented in Korat.

## (FY 1997 Overseas Survey)

The high project cost and the problem of which implementing agency will be in charge (as many of the proposed plan concern with engineering system) are main problems for the project delay. Moreover, social problem is coming from conflict between landowners.

Mini trial farm project in Khon Kaen was completed in 1997 resulting in unsuccessful, as they could not control the drain water.

## (FY 1999 Overseas Survey)

Procurement of the fund hasn't been ensured yet.

## (FY 2000 Domestic Survey)

There is no concrete action to implement the proposed projects in this Study, however the survey and research has continued in the targeted area.

(M/P+F/S)

Compiled Mar.1993 **ASE** THA/S 213B/91 Revised Mar.2008

1.	COUNTRY	Thailand					
2.	NAME OF STUDY	Road Developm	ent in the Southern Region				
3.	SECTOR	Transportation	/ Road	4. TYPE OF STUDY M/P+F/S			
5.	COUNTERPART AGENO TIME OF DEVELOPME		Department of Highways Ministry of Transport and Communications				
	PRESENT COUNTERPART AGENCY						
6.		1)To carry out a F/S on the selected projects in the M/P; 2)To carry out a F/S on the Krabi-Khanom link as a part of the Southern Seashore Development Plan (SSDP); and 3)To perform technology transfer to Thai counterpart personnel in the course of study.					
7.		Pacific Consulta Oriental Consul	ants International tants Co., LTD.				
8.	STUDY PERIOD	Feb.1990 ~	Sep.1991 19month(s)				
	SITE OR AREA	Southern region	n in Thailand				

## 10. MAJOR PROPOSED PROJECT(S)

<M/P>The road improvement M/P until 2001 is as follows:

- 1. Widening to six lanes: 150km
- 2. Widening to four lanes: 1,210km
- 3. Widening to seven-meter lanes: 970km (in total: 2,330km)
- 4. Solid crossing of multi-lane roads
- 5. Pavement completion of provincial roads
- 6. Upgrading of substandard roads to six-meter pavement
- 7. Bypass construction in the urban areas and major towns

The master plan projects with a target completion year 1996 is as follows:

1. Construction of new roads : 120km 2. Construction of additional lanes: 780km 3. Widening to seven-meter lanes: 1,460km 4. Widening to six-meter lanes : 130km

5. Reconstruction and upgrading : 132km (in total: 2,622km)

<F/S> The priority projects with the target year 1996 are as follows:

[No./ Project / Length(km) / Cost(in mil.bath)] [NC-1 /

Chumphone Road / 9.1 / 110.2] [ AD-2-1 / Phuket Road / 38.4 / 612.6]

[AD-1-2 / Surat Thani Road / 40.1 / 468.6] [NC-5 / Connection 4/406

/ 24.1 / 285.3] [WD7-4-1 / Hua Sai Road / 96.3 / 215.6]

To carry out a study on required transport capacity of the Krabi-Khanom link which consists of the Seashore Development Plan (SSDP: the isthmus transformation to new international economic zone through the construction of "Trans Thai Land Bridge"). The project and construction costs of three route alternatives are as follows:

[Plan / Project Cost (in mil.bath) / Construction Cost (in mil.bath)]

[A / 8,442.2 / 6,365.5] [B / 9,419.6 / 7,264.4][C / 8,438.8/ 5,634.9]

ASE THA/S 213B/91 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

## **Description:**

<M/P>

The study results provided the basic information for the seventh Economic and Social Development Plan.

<F/S>

19 projects formulated in F/S and pre-F/S were integrated into the Road Development Plan under the Seventh Economic and Social Development Plan. In particular, DOH recognizes the importance to promote the Phuket-Surat Thani Road Project. Projects under the Seventh Economic and Social Development Plan are considered to be implemented during the period from 1992 to 1996.

Subsequent Study:

(FY 1997 Overseas Survey)

1994~ B/D, D/D

(1)Krabi-Khanom Highway

(FY 1996 Domestic Survey)

This section was incorporated into F/S with relation to the Coastal Development in the Southern Region (M/P) which was commenced before this M/P.

After the completion of F/S, DOH divided this section (200km) into two sections, Section I and II and implemented D/D with own fund. Section I (Krabi Side) was undertaken by the Thai Consultant, TEC, and Chiyoda Consultant while Section II (Khanom side) was implemented by the Thai Consultant, AEC, and PCI. Based on the proposal of the Coastal Development in the Southern Region, oil pipelines and railways were planned to be constructed at the center of Highway. Because Section I covers the mountainous area, it includes the construction of tunnels. The delay of designing works was observed.

Later, the environmental problems arose at both Krabi and Khanom. Then, PCI, who was entrusted by AEC, is now conducting the environmental study.

(FY 1997 Domestic Survey)

Thai government had started the implementation of a part of a Highway project by own fund but the project was suspended due to the environmental problem of project of the ports located at both ends of a highway.

As a result of study conducted in 1996 by NESDB to change location of ports, highway route was altered.

(FY 2000 Overseas Survey)

"Krabi-Khanom Special Highway" project was funded by Thai government.

Amount of fund: 3,532mil. Baht Date of pledge: 28 June 1996

Contents of project: 4 lanes Divided Highway (134.1km)

(2)Other Roads

(FY 1996 Domestic Survey)

DOH submitted a few years ago the requests for an OECF loan to conduct the nationwide road widening project and the U.S. company, DCI, was appointed. This project targets national roads in the eastern and southern regions and some of roads, which were examined in these F/S, were included. Several local-consulting firms with the DOH fund have implemented D/D.

(FY 1997 Overseas Survey)

Projects under implementation and completed are as follows.

1.Phatthalung - Had Yai (AD-4) Addition Lane Construction

Khuha Intersection - Phatthalung section

Finance:OECF

2.B.Song - A.Phrasang (WD-7) Widening

Finance:IBRD 214.5 mil.B

Construction: Completed in Apr.1997

(FY 1998 Domestic Survey)

30 Sep.1994 L/A 16,029mil.yen. "Regional Road Improvement Project (I)".

15 Sep.1995 L/A 13,374mil.yen. "Regional Road Improvement Project (II)".

Rehabilitation and widening of the national trunk road () in the central and southern Thailand.

Detail:

(FY 1995 Overseas Survey)

DOH has been smoothly implementing the Road Development Projects in the southern region with its ample funds. Other than roads mentioned above, the other road projects will be implemented under the Eighth Five-Year Plan.

(FY 1997 Domestic Survey)

There would be no progress in the project for a while because of financial circumstances in Thailand.

(FY 1997 Overseas Survey)

The difficulties in procuring fund and recessing economy are reasons for suspension of remaining projects. They will be implemented in the future.

(F/S)

Compiled Mar.1993 THA/A 315/91 **ASE** Revised Mar.2008 Thailand COUNTRY Integrated Rural Development Project at Lower North Thailand 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General TYPE OF STUDY F/S Agriculture 5. Office of Accelerated Rural Development, Ministry of Interior. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY

PRESENT COUNTERPART AGENCY

Master plan on integrated rural development project of 4 provinces. Feasibility study of 4 model projects.

OBJECTIVES OF THE STUDY

Sanyu Consultants Inc. 7. CONSULTANT(S) Pacific Consultants International

Jun.1990 Aug.1991 14month(s) 8. STUDY PERIOD

4 Provinces (Phitsanulote, Sukhothai, Kamphaeng phet and Tak)

9. SITE OR AREA

## 10. MAJOR PROPOSED PROJECT(S)

- 1. Irrigated agriculture development
- Irrigation of 9,300ha
- Improvement of rained agriculture
- Development of sericulture, cattle raising and inland fisheries (108projects)
- 2. Rural road development
- Construction of rural roads (1,070km)
- Pavement of existing roads (60km)
- 3. Rural water supply (574 deep wells)
- 4. Rural infrastructure development
- Rural youth and agriculture technology training
- Cottage industry group working facilities (36)

北タイ南部農村総合開発計画

ASE THA/A 315/91 F/S

PRESENT STATUS

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

## Description:

"Four model areas are selected"

(1)Fai Non kho (where highest priority is given)

Finance:

Own fund (50.58 mil.Bahts)

Construction:

Feb.1995~Dec.1995 Reservoir Construction Completed

ARD supervised the construction.

Consulting firm / Sam Phet Co., Ltd.

(2)Fai Sam Lu

Finance:

Own fund (23.98 mil.Bahts)

Construction:

Mar.1995~Jan.1996 Reservoir completed

Consulting firm / Phisanulokviwat Phatana Co., Ltd.

### Effect:

After the completion of reservoir, water management committee was established to use water effectively.

Moreover, orchard committee and village bank have been founded to activate agriculture and raise successors.

(3)Khlong Samo Khon (Kampaeng Phet)

Construction

Measurement of dam and a part of road rehabilitation are going on.

(FY 1997 Overseas Survey)

Construction of the reservoir was cancelled.

(4)Khlong Sai (TOK)

There is no need for project as Phet Chaboon reservoir had been constructed already at 2 km from the study site.

(FY 1997 Overseas Survey)

Construction of the reservoir was cancelled.

## Detail:

(FY 1993 Overseas Survey)

In February 1993, the counterpart agency submitted an application to DETC for the request for the dispatch of an expert.

(FY 1995 Domestic survey)

In April 1995 a JICA expert was dispatched to promote the project. The Agricultural Development Association has been examining the request for the financial cooperation to conduct a promotion survey on the projects in which four model areas are included.

(FY 1996 Overseas Survey)

Sep.1996 US\$ 2.5 mil. (JICA)

Model of Rural Development (Technical Transfer)

The study conducted by Overseas Agricultural Development Association team identified the shortage of water, low productivity, low income, and village migration to urban areas as the critical problems of this area just as this F/S found. ARD has been implementing the projects such as the construction of rural roads with the limited budget. Nevertheless, the critical problems like water shortage have been yet solved. As mentioned above ARD constructed two reservoirs out of four proposed by this F/S and it will submit the proposal for the construction of the remaining two reservoirs to the Cabinet for approval. ARD sets policy to pave asphalt roads all over the country and the access roads into Huai Nong Kho and Huai Sum Ru will be paved later. To solve the critical problems which these areas are facing, the assistance of the Japanese Government is desired.

## (FY 1997 Domestic Survey)

In August 1997, a short term expert was dispatched for a month and had a guidance on measurement of farm land, drawing, and designing of water canal.

## (FY 1997 Overseas Survey)

Four reservoirs were proposed to be constructed, but only two reservoirs were completed and now under operation. There is no plan for construction of other two reservoirs namely Samoh Kon and Klong Sai. ARD has cancelled the projects because both sites are forest conservative areas.

# STUDY SUMMARY SHEET (Other Studies)

Compiled Mar.1993 **ASE** THA/S 605/91 Revised Mar.2008 1. COUNTRY Thailand Traffic Operation Plan for Roads (Follow-Up) 2. NAME OF STUDY TYPE OF STUDY Other Studies 3. SECTOR Transportation / Road 5. Department of Highways, Ministry of Transport and Communications COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY 1. To formulate the traffic operation plan; 2. To recommend a suitable road improvement plan; and 3. To transfer technology. OBJECTIVES OF THE 6. STUDY Central Consultant, Inc. 7. CONSULTANT(S) Oriental Consultants Co., LTD. Nov.1991 Apr.1991 7month(s) 8. STUDY PERIOD DOH roads within the area of the Outer Ring Road of Bangkok 9. SITE OR AREA

## 10. MAJOR PROPOSED PROJECT(S)

The Dept. of Highways (DOH), Ministry of Transport and Communications, prepared the 7th Highway Development Plan (Oct.1991-Setp.1996), by partly incorporating the findings and proposals of the JICA TOPR Study (Traffic Operation Plan for Roads) conducted from Jan.1989 to July 1990. The present follow-up study of the TOPR Study was conducted in response to the additional request of the DOH, and aimed to propose a traffic operation plan for reducing traffic accidents in the area inside the Outer Ring Road of Bangkok, to prepare preliminary designs for selected sections, and to continue the transfer of technology to the Thai counterparts.

In consultation with DOH, the present study selected ten sites out of 59 sections under study and prepared preliminary designs (scale:1/500) for improvement as follows; 1)Road improvement curvature improvement and installation of a motorcycle lane):S-44; 2) Improvement of intersections with signals:S-18 and S-22; 3) Creation of grade separation:S-19 and S-48; 4) Improved channelization at intersections and median openings: S-10, S-15, and S-24; and 5) Improved signalizaitn and channelization at intersections:S-43, S-52, and S-48.

ASE THA/S 605/91 Other Studies

DD ECENTE CITA IN IG	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

## **Description:**

Finance:

Implemented with the annual budget of the Thai government

(FY 1997 Overseas Survey)

Government budget 3,159.26.mil.B

Detail:

In the Seventh Five-Year Road Improvement plan (Oct.1991-Sep.1996),

10 bil.Bahts was allocated to the traffic safety projects. The proposed projects will be implemented together with the projects

formulated in the previous TOPR Study. The Grade Separation

Project and the Motorcycle Lane Project will be undertaken as one

of the Road Construction Projects and the Road Maintenance Projects.

(FY 1993 Overseas Survey)

The Study results have been utilized by DOH.

(FY 1995 Overseas Survey)

The Information Collection System, necessary to realize TOPR, has been satisfactorily completed with the utilization of the computer networking system. Most of the recommended projects were implemented except for the improvement of the U-Turn section.

(FY 1997 Overseas Survey)

The results of the study have been incorporated into the 7th National Highways Development Plan and used for The Traffic Safety Program for National Highways.

(M/P+F/S)

Compiled Mar.1994 THA/A 206B/92 **ASE** Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Lam Dom Yai I	Lam Dom Yai Basin Irrigation Project					
3.	SECTOR	Agriculture	/ Irrigation, Drainage & Reclamation 4. TYPE OF STUDY M/P+F/S					
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Royal irrigation Department, MDAC					
	PRESENT COUNTERPA							
6.	OBJECTIVES OF THE STUDY		or Lam Dom Yai Basin in Ubon Rathathani and Si Sa Ket Provinces, 1)To formulate an irrigated agricultural evelopment plan; and 2)F/S for the priority areas.					
7.	CONSULTANT(S)	Naigai Engineer	Janyu Consultants Inc. Jaigai Engineering Co., Ltd.					
8.	STUDY PERIOD	Oct.1991 ~	Sep.1992 11month(s)					
	SITE OR AREA	Ubon Ratchathani Provice and Si Sa Ket Province(717sq. Km)						
10.	0. MAJOR PROPOSED PROJECT(S)							

<M/P>

The irrigable areas form 29 new water resources were selected in the river basin, and the Lam Dom Yai Project was the one with highest priority.

## <F/S>

- 1. Water Resources Development
- construction for D-28 Dam (Storage capacity=117.1MCH)
- 2. Irrigation and Drainage System Development
- construction for irrigation and drainage system (benefit area=4,000ha).
- 3. Irrigated Agriculture
- establishment for land use plan, planted area and farming practices
- 4. Improvement for Agricultural support policy

ASE THA/A 206B/92 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Since the final report was submitted in December 1992 the Thai government has taken no particular action for the project implementation. However, the executing agency desires to implement this project for the poverty alleviation in the northeastern region.

## Subsequent Studies:

## (FY 1995 Domestic Survey)

Since EIA is legally required before the implementation of the project, RID made TOR for it. However, due to the financial constraints, its implementation was postponed to the next year.

#### (FY 1996 Domestic Survey)

The construction will be commenced in 2000 after the completion of the environment assessment (Eighth Five-Year Plan).

## (FY 1997 Domestic Survey)

Tender for D/D was called in May 1997 and JV of Thame consultant and Sanyu Thai were selected, but contract was not signed due to financial constraint. Alteration of plan is unclear because D/D to check the plan will not be undertaken.

## (FY 1997 Overseas FU Survey)(FY 1999 Overseas Survey)

RID have already submitted the result of EIA conducted by a local consulting company to the Office of Environmental Policy and Planning for consideration. There is no response yet.

RID will ask the Ministry of Finance for fund procurement when government approves the implementation of the project.

This project is put in the National Plan and recognized as high priority project.

RID requests further cooperation with JICA, especially in the aspect of human resource development.

## (FY 2000 Domestic Survey)

Thai government has commenced the D/D study on Apr. 2000 by their budget, however, the Study had to be discontinued in August because of the NGO's movement against the Pack Moon dam that was constructed in the neighboring area. There still remains no prospect to re-commence the Study. The Study has been conducting by the joint venture of three local consultants and it is decided to support the analysis of basis of dam, the design of the structure and the design of the pump system by Snyu Consultants Inc..

(M/P+F/S)

Compiled Mar.1994 **ASE** THA/S 214B/92 Revised Mar.2008

1.	COUNTRY	Thailand									
2.	NAME OF STUDY	Regional Development Plan for Telecommunication Networks in the Bangkok Metropolitan Area									
3.	SECTOR	Communications &	& Broadca / T	elecommunicati	on	4.	і. Т	TYPE OF S	STUDY	M/P+F/S	
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  5.  PRESENT COUNTERPART AGENCY		elephone Org	anization of Tha	ilnd (TOT),	Corporate Pl	lanni	ing Office	·		
	To formulate a long term development plan for the period from FY 1993 to FY 2007 in the Bangkok metropolitan area in Thailand.  OBJECTIVES OF THE  STUDY					olitan area in					
7.	CONSULTANT(S)	NTT International	l Corporation								
8.	STUDY PERIOD	Jul.1991 ~ ~	Oct.1992	15month(s)							
	SITE OR AREA  MAJOR PROPOSED PR	Bangkok Metropo Pathum, Samut Sa		•	Thani, Sam	utprakarn, No	ontha	aburi) & t	he sorro	unding area (I	Vakhon
1U.	MAJUK PKUPUSED PK	OJECT(5)									

<M/P>

- 1. To meet the telephone demand at the end of FY 1997 in the Bangkok Metropolitan Area and at the end of FY 2002 in the surrounding area. The outline of the telecommunication expansion plan is calculated.
- 2. The outline of the rehabilitation plan for upgrade of the telecommunication service quality is as follows; (1997-2007 total)

Switching system: 356,000 lines capacity, Transmission system: 87,000

circuits, Local cables: 431,000 pairs

"Improvement of fault ratio" and "Improvement of call completion

ratio" were selected for the study objectives to improve telecommunications service quality. The major projects proposed are as follows:

- 1) Rehabilitation of local cables replacement of drop wires with cables and renewal of drop wires - replacement of local cables
- 2) Check and consulting for customer premises
- 3) Replacement of public telephone sets 4) Changing P.D. timing
- 5) Promotion of Multi-hunting system
- 6) Increasing number of circuits (switching, transmission)
- 7) Dial consulting activity
- 8) Expansion of subscriber lines

ASE THA/S 214B/92 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

## <M/P>

The Thai government employed the BOT scheme for the early implementation of the Seventh TOT ESDP expansion project (1992-1996). As a result, the expansion of three million telephone lines has been implemented nationwide. In the Bangkok Metropolitan area, Telecom Asia Co., was awarded the concession to conduct the two million telephone lines expansion project. It is expected not only to finance and to implement the project but also to conduct the maintenance service for the constructed facilities

This study report has been utilized as a reference by TOT to supervise the company and has been integrated into the TOT managerial guideline to upgrade its service quality.

## (FY 1993 Overseas Survey)

M/P has been utilized in the implementation of the following projects.

- (1) Rehabilitation Project (1994-2001)
- (2) Analog Switching Replacement Project (1994-2001)
- (3) Public Phone Service Expansion project (1994-95)
- (4) Network Reliability Improvement Project (1995-97)
- (5) Regional Development Plan for Telecommunication Network in Provincial Area (1993-94)
- (6) Revisional Study on a Regional Development Plan for Telecommunication Networks in the Bangkok Metropolitan Area (1994-95)

#### <F/S>

CPO submitted to the TOT committee the request for the implementation of 26 projects proposed by the study report. Currently, it is under examination.

#### (FY 1993 Overseas Survey)

CPO submitted four project proposals to TOT committee. However, a financial source needs to be secured.

## (FY 1997 Domestic Survey)

Telecom Asia has completed the installation of 2.6 millions of lines by September 1996.

#### (FY 1997 Overseas FU Survey)

Finance:

ADB, private sector, TOT

Construction:

26 projects proposed by JICA's study are almost completed.

(M/P+F/S)

Compiled Mar.1994 **ASE** THA/S 215B/92 Revised Mar.2008

1.	COUNTRY	Thailand								
2.	NAME OF STUDY	The Tourism De	The Tourism Development of the Hoa-Hin/Cha-Am Beach Area							
3.	SECTOR	Tourism	/ (	Fourism in) G	eneral		4.	TYPE OI	STUDY	M/P+F/S
5.	COUNTERPART AGENO		The Tourism A	uthority of Th	ailand					
	PRESENT COUNTERPA	ART AGENCY								
6.	OBJECTIVES OF THE STUDY		1. To prepare a Tourism Development Master Plan for the Study Area with target year 2006. 2. To carry out feasibility studies on priority projects. 3. To propose a set of institutional arrangements.						. To carry out feasibility	
7.	CONSULTANT(S)	Pacific Consulta Yachiyo Engine		1						
8.	STUDY PERIOD	Jan.1992 ~	Jan.1993	12month(s)						
9.	SITE OR AREA	Hoa-Hin / Cha-Am beach area and its surroundings, including Phet Buri and Prachuap Xhiri Xhan.								
10	MA IOD DDODOCED DD	OTECT(C)								

## 10. MAJOR PROPOSED PROJECT(S)

<M/P>

- 1. Cultural and recreational center in Cha-am
- 2. Road development program in Peet Kasem

0.67 km

2.50 km

- 3. Improvement of Phet Buri coastal road
- 4. Improvement of circulation roads in Phet Buri
- 5. Municipal sewerage system development in Cha-am
- 6. Water supply development in Cha-am and Hua hin.
- 7. Tourism promotion program
- 8. Environmental management program

1. Cultural and Recreational, Center in Cha-am

To build a cultura and recreational center on a 327 Rai Government other site in Takard pilee in Northern Cha-am

- 2. Improvement of Circulation Road in Phet Buri
  - 20.5km of the Road unber Rid oo
  - 14.0km under Oa
- 3. Water Supply development in Cha-am and to complete the water distribution system with includes rooting and replacement of distribution pipes, construction of distributor facilities, etc.

ASE THA/S 215B/92 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## Description:

<M/P>

1.& 7.are under processing for implementation.

2.~6.are requested to the relating implementation agencies.

2.3.and 4.will be taken care by DOH.

5.& 6.will be carried out by PWA.

Further study by Japanese Government is necessary for 8.

However, implementation agencies are not clarified.

(FY 1999 Overseas Survey)

7.Tourism promotion program: It has not started yet because of the lack of budget according to the economic crisis.

<F/S>

(1)Cultural and Recreational Center in Cha Am

Request of budget (amount:700 million Bahts) has been submitted to the cabinet.

(FY 1993 Overseas Survey)

TAT requested OECF loan for the Center (Phase II). However, it was not selected. TAT will implement the center under cooperation between the government and private sector.

(FY 1997 Overseas Survey)

The project will be pending until Thai economy will be in stable situation.

(FY 1998 Domestic Survey)

Not yet started.

(FY 1999 Overseas Survey)

It has not started yet because of the lack of budget according to the economic crisis.

(2)Improvement of Circulation Road

(FY 1997 Overseas Survey)

Road is being improved by government budget (DOH in charge). According to the reduction in traffic, the project has been scaled down.

(FY 1998 Domestic Survey)

It has been partially completed with their own fund.

(3) Water Supply and Sewerage System

(FY 1997 Overseas Survey)

Under implementation by government budget (PWA in charge). Partially completed.

(FY 1998 Domestic Survey)

It was completed with own fund.

Impacts:

(FY 2000 Domestic Survey)

Due to the reduction of the quantity of the sewage water flowing into the sea, the environment in the seashore has been improved.

## Detail:

(FY 1996 Overseas Survey)

It is expected that some sub-projects will be implemented with the OECF 22nd Loan.

(F/S)

Compiled Mar.1994 **ASE** THA/A 316/92 Revised Mar.2008

1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Integrated Agric	Integrated Agriculture and Water Resources Development Project of the Menam Chumphon Basin					
3.	SECTOR	Agriculture	/ (A	griculture in) Gene	ral	4.	TYPE OF STUDY F/S	
5.	COUNTERPART AGENTIME OF DEVELOPME	CY AT THE		Department, Ministr		and Co		
	PRESENT COUNTERPA							
6.	OBJECTIVES OF THE STUDY		To formulate an integrated agriculture and water resources development plan of the Menam Chumphon basin; and 2) To onduct a feasibility study on selected priority projects.					
7.	CONSULTANT(S)	Sanyu Consultar KOKUSAI KOO	nts Inc. GYO CO., LTD.					
8.	STUDY PERIOD	Oct.1991 ~ May.1992 ~	Mar.1992 Dec.1992	5month(s) 7month(s)				
	SITE OR AREA	Tha '	2,260 ha, 10,800 pt Taphao basin: 35,7	opulation 100 ha, 66,000 popi	ılation			
10.	MAJOR PROPOSED PR	OJECT(S)						

the selected priority projects are composed of:

- (1) Nong Yai Agriculture Development
- Rehabilitation of Nong Yai swamp (Storage:4.5 MCM)
- Irrigation (1,200 ha)
- Livestock development (Beef cattle, pig)
- Swamp fisheries (543 surface water area)
- (2) Drainage Improvement of The Taphao River System
- Improvement of The Taphao river (34.3 Km, 350~880cu.m/s)
- Improvement of tributaries (48.5 Km, 50~800cu.m/s)
- Construction of floodways (10.0Km, 270~540cu.m/s)
- Improvement of canal (4.8Km, 260cu.m/s)

ASE THA/A 316/92 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

(1)Nong Yai Agriculture Development Project

Subsequent study:

1993~1995 F/S, EIA

Consulting Firm / local

(FY 1994 Domestic Survey)

Rehabilitation of Nong Yai Swamp has not been commenced.

(FY 1999 Overseas Survey)

1999 Rehabilitation of swamp has already completed by local budget. Agricultural development and drainage improvement around Nong Yai is under programming. (FY 2000 Domestic Survey)

The construction of the main structure and drainage has been almost completed by local dubget.

## (2)Drainage Improvement of Taphao River

Construction of Wang-Phanang Tuk Canal (4.5km) and renovation of Sam Kaeo Canal (4.8km)

Subsequent Studies:

D/D

Finance:

Own fund 768.9 Million Baht (FY 1996 Overseas Survey)

Construction:

3.5km was completed (FY 1994 Domestic Survey)

<Components>

Construction of floodway

Improvement of drainage facilities

Dredging of the Taphao River and Tributaries

## (FY 2000 Domestic Survey)

Improvement of canal, drainage: on-going

Sam Kaeo Canal has not been commenced because the targeted land has not been bought yet.

(3)Construction of Multi-Purpose Dam

Subsequent Studies:

F/S and EIA (government budget)

Consulting Firm / Local Consultant

(FY 1995 Domestic Survey)

F/S and EIA for two multi-purpose dams of Tha Sae and Rop Ro have been implemented.

(FY 1997 Domestic Survey)

D/D will start after approval of the results of EIA by EIA committee.

(FY 2000 Domestic Survey)

D/D for the Tha Sae dam was completed and SAPROF is on going by JBIC(Oct. 2000-Dec. 2000).

There is no progress on the Rop Ro dam because of the environmental problems.

## Maintenance & Operation:

The key facilities are to be managed by RID while the terminal facilities are to be managed by beneficiaries.

**(F/S)** 

Compiled Mar.1994

	_		Revised Mar.2008
COUNTRY			
NAME OF STUDY	Greater Bangko	k Truck Terminal	
SECTOR	Transportation	/ Land Transportation	4. TYPE OF STUDY F/S
		Mini. of Transport and Communications. Department	of Land Transport
PRESENT COUNTERPA	ART AGENCY		
OBJECTIVES OF THE STUDY	Bangkok.		ion and to modernize physical distribution system in
CONSULTANT(S)	Pacific Consulta	ants International	
STUDY PERIOD	Dec.1991 ~	Sep.1992 9month(s)	
MAJOR PROPOSED PRopostruct a public term construction stage is divided First Stage: 350 berth Second Stage: 150 ber	ROJECT(S) inal with 500 ber led into 2 stages: (144 Rai) th ( 63 Rai)	th	belt and road.
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PERIOD OF CONSTRUCTION STAGE IS divided First Stage: 350 berth Second Stage: 150 berth Second Stage:	COUNTRY NAME OF STUDY  SECTOR  Transportation  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  To construct a pangkok.  OBJECTIVES OF THE STUDY  Pacific Consultation  CONSULTANT(S)  STUDY PERIOD  Dec. 1991 ~  32 Km north of a struction stage is divided into 2 stages: First Stage: 350 berth (144 Rai) Second Stage: 150 berth (63 Rai)	COUNTRY NAME OF STUDY  SECTOR  Transportation  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  To construct a public truck terminal in order to alleviate traffic congest Bangkok.  OBJECTIVES OF THE STUDY  Pacific Consultants International  CONSULTANT(S)  STUDY PERIOD  Dec. 1991 ~ Sep. 1992 9month(s)  To again the CBD of Bangkok  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  o construct a public terminal with 500 berth construction stage is divided into 2 stages: First Stage : 350 berth (144 Rai)

ASE THA/S 324/92 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Delayed or Suspended

Implementing

Discontinued or Cancelled

## Description:

Subsequent Studies:

EIA

Sep.1995 D/D completed (15 mil.Bahts)

Finance

(FY 1995 Overseas Survey)

The Government ratified to implement the project with in 1993 its own fund.

The project was considered as an urgent project.

Construction:

(FY 1997 Overseas Survey)

The construction of 3 truck terminals has been delayed because of economic crisis of Thailand.

(1)Bhuddamanthon (West)

Jan.1996 started

May.1998 completed

Construction Cost / 921,900,00 Bahts Contractor / Bangkok Motor Equipment

(2)Klong Luang (North)

Apr.1997 started

Aug.1999 completed

Construction Cost / 1,069,569,123 Bahts Contractor / Prayoonvisava Karnchang

(3)Rom Khlao (East)

Nov.1996 started

Jan. 1999 completed

Construction Cost / 1,054,314,000 Bahts Contractor / Sri Nakorn Karn Yotha

Impact:

(FY 1999 Overseas Survey)

Not much interest are shown in using the public truck terminal. The government will start implementing a new truck ban measure within inner Bangkok on Feb. 1, 2000. This will prohibit truck parking for 24 hrs in the inner city of Bangkok. With this measure, it is predictably expected that public truck terminal users increase and road traffic situation improves.

Detail:

In October 1992 the Truck Terminal Construction Project Committee was organized in DLT. It aims to decide a final policy and to formulate the construction plan and schedule.

## (FY 1993 Overseas Survey)

DLT is currently in the process of the land acquisition for three truck terminal sites. One site (120ha) is likely to be acquired during the year of 1994. At present, the land accession is the biggest issue to be handled.

## (FY 1994 Domestic Survey)

The government has decided to commence the construction of a truck terminal. The construction will be commenced next year and be completed within three years. The private fund may be accepted for the project implementation.

## (FY 1995 Overseas Survey)

The land acquisition problem has not been completely settled.

## (FY 1996 Domestic Survey)

This Study proposed the construction of truck terminals at three places. Based on the concession scheme, the construction of three truck terminals will be commenced at a time.

## (FY 1997 Domestic Survey)

Project was going to be implemented with private investment based on this study. Private sector imposed conditions as 1. Operation starts at the same time when an additional truck terminal is constructed and 2. Monopolization of truck transportation business at Bangkok. The government is against them because of the difficulty in acquiring additional land and monopolistic operation right. They have not brought the negotiation to conclusion so far.

It is said that the project will be implemented based on JICA's proposal but not confirmed yet.

## (FY 1998 Domestic Survey)

The proposed projects are included in three construction projects of Bhuddanmanthon, Klong Luang, Rom Khlao. These construction works were completed and are used.

(M/P)

Compiled Mar.1995

AS		
1.	COUNTRY	Thailand
2.	NAME OF STUDY	Regional Development Plan for the Lower Northeast and the Upper East Regions in the Kingdom of Thailand
3.	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY M/P
5.		National Economic and Social Development Board (NESDB)
	COUNTERPART AGEN TIME OF DEVELOPME	CY AT THE
	PRESENT COUNTERP	
6.	OBJECTIVES OF THE STUDY	In order to accelerate economic growth in the target areas (7 provinces in the Lower Northeast and 2 provinces in the Upper East Regions), the following is to be expected; 1.To settle on an integrated regional development plan; 2.To propose institutional scheme to implement plans.
7.	CONSULTANT(S)	Nippon Koei Co., Ltd.
8.	STUDY PERIOD	Feb.1992 ~ Jul.1993 17month(s) ~ Seven provinces in the Lower Northeast and two provinces in the Upper East Regions (Land Area: 89,000km2,
9.	SITE OR AREA	population:9,900 thousand)
	MAJOR PROPOSED PR	
1.R 2.R 3.R 4.S 5.I 6.S 7.P 8.I 9.P Arc 1.C	egrated Central Area Dev	t development development resources development resources development generation  and Industrial Center Development, 2.Ubon Ratchathani Agro-industrial Forefront Development, 3.Buri Ram-Surin
1.N		ri multipurpose development, 2. Yasothon water network development, 3. Yasothon aquacultive center, 4. Groundwater ii multipurpose development, 6. Mukdahan IUD/border trade center, 7. Avanyapvathet IUD/border trade center

ASE THA/S 108/93 M/P

PRESENT STATUS
Delayed
Discontinued

## **Description:**

- 1. This project was undertaken timely in the proper area with the background of economic liberation of Indochina Countries.
- 2. In terms of implementation of plans, Thailand Government requested action-oriented plans. JICA Study Team then responded to it.

The final report was approved by NESDB as an official plan of the study area.

(FY 1996 Domestic Survey)

This M/P is incorporated into the National Land Development Plan of NESOB. However, the development in the area along the west coast and in the southern region has been given higher priority.

(FY 1997 Overseas Survey)

The results of the study have been utilized for Area and Community Development to Boost Economic Potential and Generate Income (The 8th National Economic Development Plan, 1997~2001)

## 1. Regional Projects

1) Regional Artery (one of the highest priority projects): Before the submission of the final report, the project was proposed to the Diet. The Thai government mission to Vietnam (1993) announced the NESDB plan to Vietnam that through the implementation of this project the Eastern Coastal area would be connected to Da Nang of Vietnam, which would result in the promotion of the nutual development.

(FY 1996 Overseas Survey) F/S scheduled to be undertaken in 1997 (Government budget).

(FY 1995 Domestic Survey)

< R.331>Planned to expand the width to four lanes under the Eighth

Five-Year Plan.

(FY 1996 Domestic Survey)

<New Indochina Gateway Road>

The improvement works have been implemented with the own fund.

2) Railway Improvement:

(FY 1996 Overseas Survey)

1994~1995 F/S (Ban Pai-Roiet-Mukdahan) (SRT)

SRT proposed the length of 142km which is longer than that of JICA.

3) R24 Improvement

(FY 1996 Overseas Survey)

Finance: Thai Government (5,076 mil.Bahts: for 226km out of 390km of the total length)

Construction:1998~2005

4)Second Mekong Bridge

The ADB survey of 1992 concluded that the Second Mekong bridge should be constructed at Mukdahan-Sabanaket as proposed in this study. In addition, this project was integrated into the ADB Development Plan 'TA' covering the area from the southern part of Chain to Myanmar, and the construction of the route going to Dan Nang via Myanmar was designated as one of the high priority road development projects.

Subsequent Studies:

 $Aug.1996\hbox{--}Sep.1997\ D/D\ (ADB\ grant\ US\$\ 300\ mil.)$ 

Bidding and construction works are supposed to begin in 1998. 1,400 mil.Baht for the construction works is likely to be paid by Thai and Fench.

7) Phanom Dong Rek Water Resources Development

(FY 1995 Domestic Survey) F/S for Phase I completed

(FY 1996 Domestic Survey) Being implemented.

8) Lam Ta Klong Pumped Storage Project:

(FY 1996 Overseas Survey)

Finance: Sep.1994 L/A 18,242 mil. Yen (Lam Ta Klong Pumped Storage Project)

Construction: 1996~2002 9)Pak Mun Hydropower Dam (FY 1996 Overseas Survey)

Finance: 1990 Thai Government and Foreign Loan (6,600 mil.Bahts)

Construction: 1990~1996 Completed.

Effect: (1) Irrigated area:25,600ha (2) Flood Control (3) Fisheries that yield 1,312 tons/year of additional newly protein sources. (4) Attractive tourist spot, etc.

Impact on Environment: Forest encroachment, Diseases, etc.

2. Special Center Program

(FY 1995 Domestic Survey)

Extension of Natural Gas Pipelines: About to be completed

3. Other Projects

(FY 1996 Domestic Survey)

Mukdahan Rural Development Project: TA of ADB is in preparation.

\*Unimplemented Project:

Unrealized due to compensation problems concerning resettlement, etc.

Detail:

(FY 1999 Overseas Survey) No further information.

(M/P+F/S)

Compiled Mar.1995

A	SE THA/S 2	07/93						Revised	Mar.2008
1.	COUNTRY	Thailand							
2.	NAME OF STUDY	Application Sch	neme of Land	Readjustment (L	R) National Urban Dev	velop	ment Trust		
3.	SECTOR	Social Infrastruc	cture	/ Urban Planning	& Land Development	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGENTIME OF DEVELOPME	ENT STUDY	Department Ministry of	of Town and Cou Interior	ntry Planning				
6.	OBJECTIVES OF THE STUDY	To formulate a l	L/R plan for	the first implemen	tation project and prop	ose L	/R System in Thaila	and.	
7.	CONSULTANT(S)	Yachiyo Engine	eering Co., L	td.					
8.	STUDY PERIOD	Jan.1991 ~	Jun.199	3 29month(s)					
		Bangkok Urbar	n Metropolita	nn Area					
9.	SITE OR AREA								
In 'exp	MAJOR PROPOSED PR Thailand especially in/arc pected, resulting in the se- uired urgently.	ound Bangkok, ur	rbanization to lems, typicall	iggered by the rap y worst traffic con	oid economic and indus ngestion. To solve the u	trial o	development has bee problems, developn	en expanded faste	r than ing area is
Pro Per Rec	avelling Area: Bangkok l ilder: Development Municipality oject cost: 909 million iod of work: 5 years(Or the project be cor duction Ratio: 29.5-30.7 change Rate: 1Bt=5yen	of Town and Cou Bt n condition that th npleted within on %	intry Plannin ne preparatio	-					

ASE THA/S 207/93 M/P+F/S

PRESENT STATUS  Comple Partiall	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

- 1. Under preparation of the National Cabinet Council approval on Land Readjustment law.
- $2. Under \ preparation \ of \ implementation \ to \ designation \ plot \ (including \ relocation/removal).$
- 3. Under support this project with a dispatch of JICA's specialists.

#### (FY 1996 Overseas Survey)

Presently, a JICA expert is preparing a handbook for concerned agencies, which would be used for the promotion of nationwide urban planning and development.

#### (FY 1997 Domestic Survey)

Opposition from some landowners at the site is one of impediment factors.

#### (FY 1997 Overseas FU Survey)

DTCP have initiated the pilot project for Land Readjustment in the area of RAMA IX. The project is almost ready to be executed but need the L/R Law to support. The RAMA IX project is planned according to the propose of JICA study. The pilot project already has financial support from fund with amount of 50 mil.B.

 $DTCP\ have\ planned\ to\ implement\ L/R\ in\ up\mbox{-country\ like\ Chiang\ Mai\ Province\ and\ other\ big\ cities.}$ 

During waiting for the issue of L/R Law, DTCP is conducting public relations on L/R aspect to public and press both in greater Bangkok and up-country areas. Thus, seminar and workshop on L/R matters were planned and would be firstly started in Chiang Mai Province but no budget was allocated in this fiscal year because of the crisis of economic in Thailand. Currently under the budget constraint problem of DTCP, only printed matter on L/R via brochure and folder are distributed to public. JICA study and expert are much appreciated by DTCP in term of transferring of technical knowledge on L/R. The JICA's cooperation on dispatch of expert and establishment of Urban Development Training Center Project are strongly requested by DTCP.

#### (FY 1999 Overseas Survey)

Rama 9 Land Readjustment Pilot Project Amount: 200 mil. bahts(including loan)

DTCP will start implementing the project with the approval of Land Readjustment Committee.

(M/P+F/S)

Compiled Mar.1995

		Revised Mar.20		
Thailand				
Phuket Internat	ional Airport Development Plan			
Transportation	/ Air Transportation & Airport	4. TYPE OF STUDY M/P+F/S		
	Airports Authority of Thailand (AAT)			
RPART AGENCY				
To formulate a Master Plan for long-term development of Phuket International Airport for the target year 2010 and study the feasibility of a short-term development plan for the existing airport to be formulated within the framework Master Plan.  6. OBJECTIVES OF THE STUDY				
Aug.1992 ~	Sep.1993 13month(s)			
	nonal Airport Area and the Surrounding areas.			
rm development pla verlay for structure ess 12.7cm) uilding: Expansion Expansion of parking of power generator, ion of deep water w	strengthening (Length:2280m, (6,980m2) g Slots(420slots) incinerator and telephone ells.	summarized as shown below.		
P De o e 3 E	Phuket Internat  Transportation  GENCY AT THE PMENT STUDY  To formulate a study the feasib Master Plan.  HE  Pacific Consult Pasco Internation  Aug. 1992 ~  Phuket Internation  Phuket In	Phuket International Airport Development Plan  Transportation / Air Transportation & Airport  Airports Authority of Thailand (AAT)  GENCY AT THE PMENT STUDY  To formulate a Master Plan for long-term development of Phuket Instudy the feasibility of a short-term development plan for the existin Master Plan.  HE  Pacific Consultants International Pasco International Inc.  Aug.1992 ~ Sep.1993 13month(s)  ~  Phuket International Airport Area and the Surrounding areas.		

ASE THA/S 208/93 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(1)Runway Overlay

Finance:

AAT budget 100 mil.Bahts

Construction:

Aug.1993- Mar.1994 Implemented and completed

In order to make the landing of B747 possible, 8-14 cm-overlay was undertaken over 3.5km runway.

(2)Passenger Terminal

Subsequent Studies:

D/D commenced in 1993

Finance:

AAT fund (294 mil. Bahts)

Construction:

(FY 1997 Overseas Survey)

Jan.1997~Dec.1998 (It may be delayed due to the economic situation)

It will complete by Feb.2000(FY 1999 Overseas Survey) Consulting Company / Noppawong Kosarng Co., Ltd.

The expansion area will be 5,500m3.

(3)Parking Lot for 200 Vehicles / Road

Subsequent Studies:

D/D commenced in 1993

Finance:

AAT budget (25 mil.Bahts)

Construction:

Sep.1996- May.1997 Scheduled to be implemented (It was delayed because the land acquisition problem between AAT and Dep. of Aviation needed to be settled).

(FY 1997 Overseas Survey)

Completed

(4)Wasted Water Treatment Plant

Finance:

AAT budget

Construction:

1993 implemented

(5)Additional Security Fence

(FY 1997 Overseas Survey)

modified from 800m to 1000m

Finance:AAT

Construction: Completed

#### (6)Others

The Expansion of the Cargo Terminal Building has been undertaken for the period of 1993 to 1994 while it was planned in the Long -Term Development Plan to be implemented after 2000.

(FY 1996 Domestic Survey) Completed

#### Maintenance & Operation

This project aimed at the improvement and expansion of the existing facilities. Because the M&O of the facilities had been well conducted, it seems that the M&O of the improved and expanded facilities have been also well conducted.

#### Effect

The implementation of this project resulted in the expansion of the transport capacity, corresponded to the increased demand.

(M/P+F/S)

Compiled Mar.1995

AS	SE THA/S 2	09/93		Revised Ma	ır.2008
1.	COUNTRY	Thailand			
2.	NAME OF STUDY	Sewerage Devel	opment Project for Lower Chao Phraya River Basin		
3.	SECTOR	Public Utilities	/ Sewerage	4. TYPE OF STUDY M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME		PWD		
	PRESENT COUNTERPA	ART AGENCY			
6.	OBJECTIVES OF THE STUDY		e water pollution control plan and sewerage M/P for th of sewerage system for two municipalities for the purp onal standard.		
7.	CONSULTANT(S)		do Sekkei Co., Ltd. nnts International		
8.	STUDY PERIOD	Mar.1992 ~	Jan.1994 22month(s)		
9.	SITE OR AREA	Lower Cha Phr	aya River Basin		
1. 'Arc Co 2. l Arc Co 3. l Arc	ntents:Installation of sew Basic Plan for Drainage Sea: 8 municiparities	Plan Sisin (6,037.4 sq.k) ege system, Regu System of waste water, Estatinage System	m, 7 provinces, population 3.35mil.)  alation of waste water, etc.  stablishment of sewege corporation by local and centar  system, etc.	ral government, Installation of sewege system,	etc.

ASE THA/S 209/93 M/P+F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

(FY 1997 Overseas Survey)

As for Chainat, Singburi and Angthong, sewerage development project has been completed or in progress.

As for other areas, there is almost no possibility to materialize the project because acquiring land for construction of treatment plant is difficult and the dispute over wastewater management policy with Ministry of Science has not settled.

(1)Chai Nat

Subsequent Studies:

1994 F/S and D/D (PWD)

Finance:

1995 PWD budget 204mil.Bahts

Construction:

1995 (Scheduled to be completed in Mar.1998)

\*Contents: stabilization pond wastewater treatment plant(6,000m3/day)

Contractor / S.K.Y.

(2)Sing Buri

Subsequent Studies:

1994 F/S, 1995 D/D (PWD)

Finance:

1997 PWD budget 280mil.Bahts

Construction:

1994~2000

Contractor / S.K.Y.

(3)Ang Thong

Subsequent Studies:

F/S and D/D (PWD)

Finance:

1994 PWD budget 180mil.Bahts

Construction:

Completed in March, 1995. It is in operation.

\*Contents: treatment plant(8,200m3/day), service area(2km2), operating cost(1.48baht/m3)

Contractor / Angthong Pattana

(4)Lop Buri

Subsequent Studies:

Under the plan, the implementation of D/D and F/S was to be commenced with PWD fund in 1996. However, it has been postponed until the problem over the jurisdiction of the project is settled between PWD and the Ministry of Science, Technology and Environment.

(5)Bang Bua Thong

Subsequent Studies:

F/S and D/D (PWD)

\*The land preparation is under way now.

(6)Pa Mod, Sena and Rangsit

The project will be commenced after the municipality governments acquire the land for a sewage treatment plant.

**(F/S)** 

Compiled Mar.1995

A	SE THA/A 3	510/93		Revised	Mar.2008
1.	COUNTRY	Thailand			
			velopment for Peat/Acid Sulfate Soil Areas in Narathiwat Province		
2.	NAME OF STUDY	rigireanurur De	velopment for 1 etta field buildie boil filedb in 1 taldin vide 1 formee		
_					
	SECTOR	Agriculture	/ (Agriculture in) General 4. TYPE OF STUDY F/S		
5.			The Department of Land Development (DLD)		
			Ministry of Agriculture and Cooperatives		
	COUNTERPART AGEN	CY AT THE	winistry of righteutitic and cooperatives		
	TIME OF DEVELOPME	ENT STUDY			
	PRESENT COUNTERPA	ART AGENCY			
	I.	Establishment o	f Agricultural Development Method in peat/acid sulfate soil area.		
		Establishment o	Agricultural Development Method in peat/acid surfate son area.		
6	OBJECTIVES OF THE				
6.	STUDY				
		Sanyu Consulta			
7.	CONSULTANT(S)	Taiyo Consultar	nts Co., Ltd.		
		Feb.1992 ~	Jan.1994 23month(s)		
8.	STUDY PERIOD		Jan. 1774 23 monun(8)		
		~			
		Peat/acid sulfat	e soil areas in the Narathiwat province		
		1 car acra sarrar	e son areas in the randam wat province		
o	SITE OR AREA				
٦.	SITE OR AREA				
10.	MAJOR PROPOSED PR	ROJECT(S)			
	nd Improvement 997ha	` ′			
		2			
	ninage Canal(New) 9,900				
	ainage Canal(Reform) 11	1,910m			
Em	bankment 17,800m				
	h Nursery Pond 21ponds	,			
1 15	ir vursery rond 2 rponds	•			
	ject cost: approx. 1.71bi	llion yen.			
Im	p. period: 5 or 6 years				

南部タイ泥炭土壌地域農業開発計画

ASE THA/A 310/93 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Aiming at the implementation of the project at the earliest, DLD is trying to secure the necessary budget. In view of the size of the project, DLD considers that the required budget is within the range of DLD authority. Funding is brought not only from domestic but from foreign sources.

#### (FY 1995 Domestic Survey)

Despite it does not have any idea to implement, DLD, the Governmental organization in charge of this project, is planning to hold a seminar. Additionally, DLD is considering to commence a technical cooperation project regarding to the treatment of particular soil together with another implementing project of farmland maintenance at Southern Thailand within this fiscal year.

#### (FY 1996 Domestic Survey)

Taking into account the discussion at the Environmental Conservation and Sustainable Agricultural Land Management in Boggy Region held in Nov.1996, DLD will decide a implementation plan at the next stage.

#### (FY 1996 Overseas Survey)

DLD is looking for the assistance from JICA to establish On-farm trials and studies on drainage control and water management referring to the methods recommended in F/S. It considers difficult for DLD alone to implement the project due to the shortage of suitable specialists and the budget constraints.

#### (FY 1997 Domestic Survey)

DLD has requested to government for implementation of the project, but it is not approved yet due to financial constraint.

#### (FY 1997 Overseas FU Survey)

The pilot farm model setting up is well recognized and initiated by LDD. The main problem is financial source to run the pilot farm model. The proposes of JICA will be tested and proved whether it is feasible or not.

The problem facing for this trial farm is irrigation system which LDD must lean on the RID only. LDD performances on this matter cannot be run without irrigation system provided by RID.

The recommendations of JICA study have been partially implemented at Bajo District such as soil improvement, crop trial(oil palm planting) and drainage system.

#### (FY 1999 Overseas Survey)

There is no further information.

**(D/D)** 

Compiled Mar.1995

AS	SE THA/A 4		vised Mar.200	5
1.	COUNTRY	Thailand		
		Bang Pakong Diversion Dam Project		٦
2.	NAME OF STUDY	Zamig I among Divoloidi Dain I Tojocc		
2	CECTOR	A similar (A size to 1) CO 1		4
	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY D/D		4
5.		Royal Irrigation Department (RID)		
	COUNTERPART AGEN	NCV AT THE		
	TIME OF DEVELOPME			
	THRE OF DEVELOTIVE	ENISIODI		
				٦
	PRESENT COUNTERPA	ADT ACENCY		
	PRESENT COUNTERPA	ARI AGENCI		
				4
		Detailed Design Study on Bang Pakong Diversion Dam Project.		
6.	OBJECTIVES OF THE			
	STUDY			
		Sanyu Consultants Inc.		$\dashv$
7	CONCIL TANTES	Sanyu Consultants IIIC.		
7.	CONSULTANT(S)			
		0. 1002		4
8.	STUDY PERIOD	Sep.1992 ~ Nov.1993 14month(s)		
		~		
		Tha Lat River Basin in Chachoengsao Province		
_				
9.	SITE OR AREA			
10	MAJOR PROPOSED PR	DOIECT(S)		$\dashv$
10.	MAJOK FROFUSED FR	ROJECI(S)		
_				
One	e diversion dam and relat	ated structures, and one pumping station		
				- 1

ASE THA/A 402/93 D/D

	Completed or In Progress	Promoting
DDECENTE CITA INTIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

This study is D/D of "Agricultural Water Resources Development Project of Bang Pakong River Basin (THA/A 204B/90, JICA M/P+F/S)"

(1) Diversion dam and pumping station

Finance:

(FY 1996 Domestic Survey)(FY 1997 Overseas Survey)

1996 Government budget 210mil.Bahts (for construction and consulting service)

Construction:

(FY 1997 Domestic Survey)(FY 1998 Domestic Survey)(FY 1999 Domestic Survey)

Oct.1996 Commenced Nov.1999 Completed

Construction Trader / JV of Nishimatsu & Itar Thai Construction

Cost: 1,970 million Baht (Own fund)

Progress situation: As of Nov. 1998, 60 % was completed.

(2) Construction of irrigation channel

(FY 1998 Domestic Survey)

Finance: 614 million Baht (Own fund)

Construction:

- Upper stream (8km, contracted), Dec. 1998  $\sim$  600 days, Cost: 114 M Baht
- Lower stream (24.5km, preparing for bid), 1999 ~ 2 years, Cost: 500 million Baht

(FY 1999 Overseas Survey)

Construction: It is scheduled to complete by 2001.

(3) Construction of drainage channel (60km) and embankment (16km)

(FY 1998 Domestic Survey)

D/D was completed.

Finance: 100 million Baht (Own fund)

Construction: 2000 ~ 2001

# STUDY SUMMARY SHEET (M/P)

Compiled Oct.1995

**ASE** THA/S 110/94 Revised Mar.2008 1. COUNTRY Thailand Management of Groundwater and Land Subsidence in the Bangkok Metropolitan Area and its Vicinity 2. NAME OF STUDY SECTOR Social Infrastructure / Water Resources Development TYPE OF STUDY M/P 3. 5. Department of Mineral Resources (DMR), Ministry of Industry and Public Works Department (PWD), Ministry of Interior COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY To draw up the plan to control the land subsidence and the underground water. **OBJECTIVES OF THE** 6. STUDY KOKUSAI KOGYO CO., LTD. 7. CONSULTANT(S) Jul.1992 32month(s) Mar.1995 8. STUDY PERIOD Bangkok metropolitan area and its vicinity (approx. 5,600sq.km) 9. SITE OR AREA

#### 10. MAJOR PROPOSED PROJECT(S)

<sup>1)</sup>Establishment of new facilities for observation.

<sup>2)</sup>Hydrological/geological investigation for all area of the Chao Phraya River basin.

<sup>3)</sup>Investigation for the reasonable utilization of river water.

ASE THA/S 110/94 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

Utilization of Outputs:

(FY 1997 Overseas Survey)

The results of the study have been incorporated into National Development Plan (1998~2002).

At Pathum Thani Province, a part of investigating area, construction plan of an observation well is in progress by DMR with its own budget.

#### (FY 1996 Domestic Survey)

A part of an observation well, which had been constructed in this Study, was struck by lightening either in Sep. or Oct.1995 and damaged. Therefore, the counterpart requested the dispatch of short-term expert for the examination and repair of machinery. Nissaku, which produced and installed related machinery and equipment, and Kokusai Kogyo, which implemented this Study, are planning to dispatch an employee.

#### (FY 1996 Overseas Survey)

DMR is responsible for monitoring groundwater level and land subsidence from three stations which were constructed during this study. Data cards have regularly been taken from the installed digital records for data processing. The results of the study have been used for groundwater management in Bangkok and adjacent provinces. At present, some electronic parts of digital records are out of order. Request for follow-up project has already been submitted JICA.

#### (FY 1997 Domestic Survey)

New observation well is not constructed because of budget squeeze of Thai Government.

Out of the observation wells constructed in this study, AIT and a station in Samut Sakong were damaged by lighting. JICA is considering rehabilitation and renovation of a part of damaged facilities because record of subsidence is needed for development study on Chaophraya flood control which is being undertaken.

#### (FY 1997 Overseas Survey)

The study on possibility of flood water recharge in the Greater Bangkok has been carried out by Public Works Department from 1996 to 1997.

#### (FY 1998 Domestic Survey)

The operational situation of the observation well was followed up in "Study on the Flood Control Project of Chao Phraya River" conducted by JICA in 1997, and the facilities damaged by lightening were repaired. As a result, data on the groundwater level and the subsidence are automatically recorded and utilized.

The projects (regarding the establishment of new observation wells, hydrological/geological investigation for all area of the Chao Phraya River Basin, Investigation for the reasonable utilization of river water) have not been realized due to the difficulty in funds procurement caused by the economic crisis since July 1997. However, since drought and shortage of water is predicted in the dry season of 1999, DMR is planning to monitor the groundwater and subsidence in lower Chao Phraya River Basin and intends to request the Japanese government to conduct a development study.

#### (1)Details Assessment of Groundwater Resources

(FY 1999 Overseas Survey)

Subsequent Study:

1994~2001 Development Study(Government budget: 30 mil. bahts)

Finance:

Government budget 15 mil. bahts

\*Contents: Drilling of Observation Wells and Installation of Automatic Water Level Recorders, Hydrogeological Investigation

#### Construction:

1-1. Construction of Observation Wells in Lower Chao Phraya

(FY 1999 Overseas Survey)

1997~ 22 Observation Wells were drilled. Drilling of 60 Observation Wells remains.

\*Contents: Drilling of Observation Wells and Installation of Automatic Water Level Recorders in Lower Chao Phraya.

(2)A Feasibility Assessment of a Pilot Scale Artificial Recharge Trial in Bangkok and its Vicinity

(FY 1999 Overseas Survey)

Subsequent Study:

1998 F/S(Government budget: 800,000 bahts)

Finance:

Oct.1998 Government budget(800,000 bahts)

\*Contents: To investigate the feasibility of using surface water to artificially recharge Bangkok's problem.

(M/P+F/S)

Compiled Sep.1995

ASI	E THA/S 2	16/94			Revised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Modernization of	of Bangkok Port in the Kingdom of Tha	iland		
3. 5	SECTOR	Transportation	/ Port	4. TY	YPE OF STUDY M/P+F/S	
			PAT			
	COUNTERPART AGEN					
	TIME OF DEVELOPME	ENT STUDY				
5.						
]	PRESENT COUNTERPA	ART AGENCY				
			Bangkok Port by 2005.			
		Feasibility Stud	y of Bangkok Port by 1997.			
6.	OBJECTIVES OF THE STUDY					
		The C				
7. (	CONSULTANT(S)		oastal Area Development Institute unts International			
8. 5	STUDY PERIOD	Mar.1993 ~	Jul.1994 16month(s)			
		Bangkok Port				
9. 5	SITE OR AREA					
	MAJOR PROPOSED PR	OJECT(S)				
<m <="" td=""><td>P&gt; croduction of the closed</td><td>tarminal exetam</td><td></td><td></td><td></td><td></td></m>	P> croduction of the closed	tarminal exetam				
	pansion of the marshall					
	ew establishment of Imp		ort CFS.			
<f s<="" td=""><td>_</td><td></td><td></td><td></td><td></td><td></td></f>	_					
	roduction of the closed	terminal system,				
2)Int	roduction of the closing	g time,				
	pansion of the marshall tionalization of the con-					
5)Ne	ew establishment of Imp	ort CFS at Area	II.			

ASE THA/S 216/94 M/P+F/S

PRESENT STATUS	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

(FY1995 Overseas Survey)

Port Authority of Thailand(PAT) decided to implement a short-term-improvement plan. (budget: 800 million baht)

- (1) Therminal operation will become easier by dividing the container-cargo-handling-place from conventional-cargo-handling-place.
- (2) Closed Terminal operation will be applied.

#### Finance:

(FY 1997 Overseas Survey)

FY 1994 PAT budget 775mil.Bahts

\*Contents

Construction plan, procurement of container handling equipment, human resources development and restructuring of organization and computerization of the port.

#### Implementation:

(FY 1997 Overseas Survey)

FY 1995 ~ FY 1997 (As for the end of 1997, 85% of the action plans has been completed)

#### Construction:

(FY 1999 Overseas Survey)

The following construction works have already completed.

- 1. Construction of container yard to replace ex-supplementary shed No.11, shed No.11, and shed No.12
- \*Contents:Demolition of existing sheds, pavement, Development of drainage system, development of ligthing system
- 2. Construction of Terminal gate No.1 & No.2
- \*Contents:Construction of terminal gate control room, pavement, development of ligthing system
- 3. Construction of a concentrated reefer yard
- \*Contents:Pavement(12,120m2), Implementation of reefer plugs(360 units)
- 4. Construction of Terminal No.2 Office Building
- \*Contents:Office building(4 floors)
- 5. Construction of Gas station at east quay
- 6. Construction of repair and maintenance shop for container equipment at west quay
- \*Contents: Main shop(1,500m2), Minor shop(1,000m2), Out door pavement(3,000m2)
- 7. Adding one traffic lane to the bridge connecting the east and west quays
- \*Contents:Demolition of foot part, adding one traffic lane

**(F/S)** 

Compiled Oct.1995

AS					Revised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Inter-City Toll	Motorway Project			
3.	SECTOR	Transportation	/ Road	4. TYPE OF STUDY F/S		
5.	COUNTERPART AGEN TIME OF DEVELOPMI		Bureau of Road, Ministry of Transpo	rtation & Communication		
	PRESENT COUNTERPA	ART AGENCY				
		A F/S on Const	ruction of Expressways.			
6. OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	Nippon Koei Co	rineers International o., Ltd. GYO CO., LTD.			
8.	STUDY PERIOD	Aug.1993 ~	Mar.1995 19month(s)			
9.	SITE OR AREA		ng to Doi Saket (98.72km) ong to Cha Am (113.74km)			
	MAJOR PROPOSED PR			00.701		
Chi	iang Mai including follow Interchange : 5 Tunnel : 2 (3.80) Bridge : 30 (Tot. Overhead bridge: 35 ( Construction of an express luding followings: Interchange/Junction:	wings: km, 0.75km) al length 720m) (Total length 13,3 sssway from Bang 8 (Total length 1,33	365m) gpong to Cha Am with a distance of 13 34m)	98.72km passing through the prefectures of Lam		

ASE THA/S 325/94 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

1)The Government of Thailand intends to construct the expressways in early stage.

2)The reason to ask JICA the detailed design is that Thailand does not have any experience to design and establish any tunnel before and it becomes a technical bottleneck.

(1)Tunnel Section in Lampang - Doi Saket Expressway

Subsequent Studies:

(FY 1998 Domestic Survey)

Oct.1996~Mar.1997 D/D implemented by JICA

"Lampang - Chiang Mai Expressway (D/D, Stage I)"

Consulting Firm / Katahira & Engineers International

Stage II of D/D is to be conducted by JICA.

Finance:

(FY 1998 Domestic Survey)

OECF loan is to be provided after the completion of D/D (Stage II).

(FY 2000 Overseas Survey)

"Lampang - Doi Saket" project was divided into 2 projects named "Lampang - Lamphun (60km)" and "Lamphun - Chiang Mai (39km)".

Both projects were funded by a privatezed executing agency.

Amount of funds: 21,330mil Baht (Lampang - Lamphun), 5,650mil Baht (Lamphun - Chiang Mai)

Effect:

(FY 1997 Domestic Survey)

This Toll Highway will provide better service to users than ML-5 and ML-9.

Background:

(FY 1997 Overseas Survey)

The implementation of the project depends on the economic situation of the country.

\*This construction work is the same one referred in "Road Development in the Central Region (1988)" as ML-5 and ML-9.

(2)Bangpong - Cha Am

Subsequent study:

(FY 1998 Domestic Survey)

D/D is underway with their own fund.

(FY 2000 Overseas Survey)

"Bangpong - Cha Am" project was divided into 2 projects named "Bang Pong - Pak Tho (62km)" and "Pak Tho - Cha Am (72km)".

Both projects were funded by a privatezed executing agency.

Amount of funds: 17,500mil Baht (Bang Pong - Pak Tho) , 11,900mil Baht (Pak Tho - Cha Am)

Related projects:

(FY 1995 Overseas Survey)

The implementation will be carried out in five years. At present, a part of Outer Ring Road (60km) and the road between Inner Ring Road and Chonburi (82km) are under construction and scheduled to be completed in 1998. The partial construction cost is financed by OECF loan.

(FY 1997 Domestic Survey)

2000 scheduled to be started.

2001~2006 scheduled to be completed.

(Other Studies)

Compiled Sep.1995

AS	E THA/S 606/9		Revised Mar.2008
	COUNTRY	hailand	
2.	NAME OF STUDY	aspection and Maintenance System for the Expressway	
3. 5.	SECTOR  COUNTERPART AGEN TIME OF DEVELOPME		TYPE OF STUDY Other Studies
	PRESENT COUNTERPA		
6.	OBJECTIVES OF THE STUDY	stablishment of inspection, management and repair system with utilizing TA.	databases for expressways under the control of
7.	CONSULTANT(S)	riental Consultants Co., LTD. acific Consultants International	
8.	STUDY PERIOD	in.1993 ~ Sep.1994 15month(s) ~	
9.	SITE OR AREA	xpressways in Bangkok metropolitan area	
10.	MAJOR PROPOSED PR	TECT(S)	
1)T 2)T 3)T 4)T	o prepare the ledger data o prepare database and n o prepare database and n o prepare database and n		

**ASE** THA/S 606/94 **Other Studies** In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** (FY1995 Overseas Survey) Expressway and Rapid Transit Authority(ETA) is proceeding with most of the JICA plan, including kilo-post-operation, safety measures and maintenance computenization. (FY1997 Domestic Survey) Computerized control system is utilized based on the inventory data at all sections. Because officers of ETA become accustomed to the system, efficiency of work has improved and time spent for data processing has reduced. No serious problem occurred under the computerized control system which treats data check, data input and analysis of existing data. (FY 1997 Overseas Survey) The outputs of the Study have been incorporated into the 8th National Economic and Social Development Plan (1997~2001). (FY 2000 Overseas Survey) ETA accepted a JBIC's proposal of SAPS(Special Assistance for Project Sustain ability) study in order to review current operation and maintenance system. JBIC dispatched Japanese consultant team for the study.

(M/P+F/S)

. ~	<b>T</b>	30=10=	(M/P+F/S) Compile	
AS		207/95 Thailand	Revised	d Mar.2008
1. 2.	NAME OF STUDY		ne Agricultural Land Rehabilitation and Conservation Project	
	SECTOR  COUNTERPART AGEN TIME OF DEVELOPMI		/ (Agriculture in) General  4. TYPE OF STUDY M/P+F/S  Ministry of Agriculture and Cooperatives Department of Land Development	
	PRESENT COUNTERPA	ART AGENCY		
			Itation and conservation of farm land suffered from a disaster in 1988.	
6.	OBJECTIVES OF THE STUDY	175 uter select	ing priority decas.	
7.	CONSULTANT(S)	Sanyu Consulta	ants Inc.	
8.	STUDY PERIOD	Mar.1993 ~	Sep.1995 30month(s)	
			rat Thani, Ban Na San area (1) khon Si Thammarat, Ransaka area (2)	
9.	SITE OR AREA			
10.	MAJOR PROPOSED PR	ROJECT(S)		
Dra Irri Far Sor Soc	ainage Improvement Progation Development Pro main Land Conservation Fil/Soil Stratum Improver	oject (bank constr oject facility Service Parent Project overnent Project (		

ASE THA/A 207/95 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

Finance:

(FY 1996 Overseas Survey)

Domestic fund

Construction:

(FY 1996 Overseas Survey)

Scheduled to be implemented from 1998

Maintenance & Operation after Completion:

(FY 1996 Overseas Survey)

It is to be handed over to the individual farmer through Farmer's Group under supervision of Local DLD Station in Regional Office.

#### Situation:

(FY 1997 Domestic Survey)

DLD has constructed a demonstration farm of soil protection with an area of 10 Rai at target areas of the study in Surat Thani and Nakhon Si Thammarat. Cabinet approved the project. Its implementation was scheduled in 1996, but was not started due to financial constraint.

#### (FY 1997 Overseas Survey)

Budget allocation is difficult because of economic constraint.

#### (FY 1999 Overseas Survey)

The construction has not yet started since the project has not received any budget from the government due to the national economic constraint. However, the Land Development Department realizes the importance of the soil and land rehabilitation and has a strong intention to complete the project. Therefore, an amount of budget is allocated for conducting advisory and demonstrative activities to present a suitable way of soil and land rehabilitation in the project area. At the same time, the Land Development Department is now under process to request external fund.

#### (FY 2000 Domestic Survey)

DLD requests the approval by the Thai government, however they has not obtained the budget and prepared the workshop for the realization.

#### (FY 2001 Overseas Survey)

Due to economic constraint, the Government has policy to slowdown the establishment of new project. At the same time, LDD has tried to submit projects to request for external fund support, but they have not got approval. However, LDD has regularly supported budget for conductiong soil improvement by using organic matter and green manure as well as strengthen orchard cultivation in the project areas. At present, those areas can be used for cultivation as soil fertility has been rehabilitated.

#### (FY 2001 Domestic Survey)

The government currently restricts the allocation of budget for new projects due to economic deterioration. Also, procurement of foreign fund is restricted. However, the concerned authorities are trying to improve the soil quality of the project area within the range of annual budget.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2005 Overseas Survey)

Monitoring and Evaluation for the effect of sedimentary soil management to productivity of rambutan and durian were conducted from October 1996 to September 1998 by regional land development office. The study aims to compare sedimentary soil management methods and to clarify utilisation of methods for production of rambutan.

(M/P+F/S)

Compiled

Jul.1996

**ASE** THA/S 217/95 Revised Mar.2008 1. COUNTRY Thailand Improvement Plan for Railway Transport around Bangkok Metropolis in Consideration of Urban Development 2. NAME OF STUDY 3. SECTOR / Urban Transportation 4. TYPE OF STUDY M/P+F/S Transportation State Railway of Thailand COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY 1. M/P on railway transport improvement plan around Bangkok Metropolis in consideration of urban development. 2. F/S for the priority railway line (approx. 100km). OBJECTIVES OF THE STUDY Japan Railway Technical Service 7. CONSULTANT(S) Yachiyo Engineering Co., Ltd. ALMEC Corporation Aug.1993 Oct.1995 26month(s) 8. STUDY PERIOD Bangkok Metropolitan Area 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) < M/P >M/P settlement on the integrated urban development and railway improvement in Bangkok Metropolitan Area. F/S proposals for SRT East Line and New SRT Line to SBIA. < F/S >(1) Development Plan of Model City -Lat Krabang-East New Urban Community:120.9ha (2)Railway Improvement Plan 1)Commutation transport improvement a. Yommarat-Hua Mak (13.0km) b.Hua Mak-Khlong Luang Phaeng (24.1km) c.Khlong Luang Phaeng-Chachoengsao (20.1km) d.Others 2)New SRT Line to SBIA (5.1km, electrify a railroad) 3) High Speed Rail Plan (Hua Lamphong-Map Ta Phut) a.Increase a number of diesel car b.Railroad crossing improvement c.Others

ASE THA/S 217/95 M/P+F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 1996 Overseas Survey)

On Jan.29.1996 National Economic and Social Development Board and SRT organized the seminar on "The Integration of Future Railway Transport and Urban Development". The purpose of the seminar was to share perceptions of related organizations. Although this study proposed the involvement of many authorities for the implementation, it is considered difficult to implement in such a way. To realize the project quickly, SRT would include the electrification of the eastern line to Chachoengsao in the current investment plan (1997~2001). Since the urban development along the railway line has not yet come into reality, the project financing and physical configuration of the system will be slightly different from what recommended. The Study suggested to finance the project with fare charges, taxes, etc. but SRT will request for a Government budget. Number of railway stations will be as it is now. New station will be built later to serve new communities after the future urban development makes progress. OECF is now interesting in financing the private sector project in Thailand. If OECF agrees to support the private project for urban development along the railway line while supporting the construction of railway infrastructure (double-tracking, electrification, etc.), the project implementation will be accelerated.

(FY 1997 Overseas FU Survey)

The project delay is caused by the problem of Hopewell Project which will be terminated the contract by the Thai government soon. Moreover SRT faces the problem of budget constraint. After the cancellation of the Hopewell Project, it is believed that SRT may further implement the Hopewell Project itself or award the contract to private company again.

Priority for the project implementation mentioned by the management team of SRT is 1) double track, out of the Hopewell station area, 2) electrification, 3)urban development. Total project cost is 10 bil.Bahts. The double track project in Bangkok area is now put in the Eighth Five Year Plan. The amount of 4.5 bil.Bahts allocated by the government may be first planned for the implementation of the Northern Line double track. The Eastern Line double track will be implemented in order to support the Second International Airport, Nong Ngu Hao, and Laem Chabang Seaport. Actually, the double track for Eastern Line will become triple track in stead because the double track project will not be enough for demand of Lame Chabang Seaport in the future. There is no budget allocated for implementation of the Southern Line double track and North Eastern Line double track. According to the management team of SRT, NESDB not SRT, should be the core organization for implementation of the Lad Krabang Urban Development Area Project.

(FY 1999 Overseas Survey)

Northern Line (Rangsit - Ban Pa Chi, 61km) triple track: 1993 ~ 1999 (completed). Northern Line (Ban Pa Chi - Lop Buri, 43km) double track: 2 years. D/D has been completed. Currently in the process of negotiation with potential contractor. North-Eastern Line (Ban Pa Chi - Mab Ka Bao, 44km), Eastern Line (Hua Mark - Chachoengsao, 45km, triple track), Southern Line (Bang Su - Nakhon Pathom, 41km): waiting for cabinet consideration of the change of construction cost and source of fund.

(FY 2001 Domestic Survey)

Under the direct order by the Prime Minister, Taksin in Sep.2001 after change in his administrations, the Bangsue Junction has been recognized as the center of the railways to be developed to have a function to control the railways from north and south. The posts on the Northern Line have been removed and the new double track from Bangsue to Donmuang has come to be constructed there. Total cost will be about 7 to 8 billion Baht. On the Eastern Line, the present double track will be four-tracked from Bangsue to Hua Mark. They came out with the policy to construct and expand only the benefit productive routes.

#### Four-track Project:

(FY 2001 Domestic Survey)

1. Eastern Line (from Hua Mark to Chachoengsao, 45 km)

Finance: 5.9 billion Baht (Civil works 1.6 billion., Track laying 1.4 billion, Bridge construction 2.9 billion)

Period: 28 months from Dec. 2000 / Content: Triple track / Situation: completed until 21 %

2. Southern Line (from TARINCYAN to Nakhon Pathom, 42 km)

Finance: 4.2 billion Baht / Period: 24 months from Jul.2000 / Content: Double track

Situation: completed until 53 % \* It has been double-tracked between Bang Su and TARINCYAN.

3. North-Eastern Line (from Ban Pa Chi to Mab Ka Bao, 44 km)

Finance: 2.4 billion Baht (Civil works 1.0 billion., Track laying 1.3 billion, Bridge construction 0.1 billion)

Period: 24 months from Jul.2000 / Content: Double track

Situation: completed until 58 %

4. Northern Line (from Ban Pa Chi to Lop Buri, 43 km)

Finance: 2.0 billion Baht (Civil works 0.8 billion., Track laying 1.0 billion, Bridge construction 0.2 billion)

Period: 24 months from Jul.2000 / Content: Double track

Situation: completed until 40 %

#### (FY 2005 Domestic Study)

There was a possibility of financing engineering works of the extension of underground which was planned to acquire 30% from government budget and 70% from foreign loans totalling 315.115 million BHT. However, due to change of Minister of the Ministry of Transportation, the plan is under a revision.

Subsequent Study: Metropolitan railway maintenance plan

Implementing period: January 2004 to April 2005 Implementing party: Local consultant company

Objectives: Considering the route change for the commute railway maintenance and detailed design.

Subsequent project: Construction of the access lines to the new airport.

Funding: Own funds 28,000 million BHT

Construction period: January 2005 to December 2007

Progress: approximately 5 %

Description: Construction of an access line between Bangkok city center and the new airport. (28km, 25kv alternating)

Technical cooperation:

Dispatch of experts: Two technical advisors to the Thai National Railway and the Traffic Policy Department, the Ministry of Transport.

**(F/S)** 

Compiled Jul.1996

E = THA/S 3	6/95			Revised Mar.2008
COUNTRY				
NAME OF STUDY	Road Disaster Prevention Plan			
SECTOR		4.	TYPE OF STUDY	F/S
	DOH			
PRESENT COUNTERPA	RT AGENCY			
OBJECTIVES OF THE STUDY			routes where is high	probability of disaster
CONSULTANT(S)				
STUDY PERIOD	Nov.1993 ~ May.1995 18month(s)			
SITE OR AREA	~ Throughout Thailand			
MAJOR PROPOSED PR	MECT(S)			
	COUNTRY  NAME OF STUDY  SECTOR  COUNTERPART AGENCY TIME OF DEVELOPMEN  PRESENT COUNTERPAI  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  MAJOR PROPOSED PRO  INCOMPANY OF THE STUDY  MAJOR PROPOSED PRO  MAJOR PROPOSED PRO  MAJOR PROPOSED PRO  MAJOR PROPOSED	Thailand   Road Disaster Prevention Plan	COUNTRY   Thailand   Road Disaster Prevention Plan	COUNTRY NAME OF STUDY  Road Disaster Prevention Plan  SECTOR  Transportation  ON  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  To conduct a F/S on road disaster prevention plan for the targeted areas and routes where is high occurring and to make disaster prevention and rehabilitation manuals.  OBJECTIVES OF THE STUDY  Oriental Consultants Co., LTD.  Katahira & Engineers Inc.  STUDY PERIOD  Nov. 1993 ~ May. 1995 18 month(s)  Throughout Thailand  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  ad Disaster Prevention and Restoration

ASE THA/S 326/95 F/S

	Completed or In Progress	Promoting
DDECENTE COLATERIO	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

-Improvement of Road Disaster Prevention System.

-Reconsideration of Disaster Prevention Method.

#### (FY 1996 Overseas Survey)

DOH has set up services of training program targeting all level of field staff. The senior maintenance engineers have been already trained. Besides training on prevention and restoration works have been done to prevent piers and abutment from collapsing.

#### (FY 1997 Overseas Survey)

In order to implement the proposed plan and manual due to the importance of the study, The Department of Highways would like JICA to review the study.

#### (FY 1998 Domestic Survey)

The manual made by this study is utilized among the concerned technical staff.

Finance: own fund.

\*Project contents/ some of the proposed measures especially for slope protection and bridge protection are to be implemented.

Effect: damage by disaster is to be alleviated and the smooth traffic is to be ensured.

Future prospect: the proposed projects are to be gradually implemented.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P) Compiled Jun.1997
THA/A 102/96 Revised Mar.2008

	<u>Chailand</u>
2. NAME OF STUDY	Integrated Agriculture and Water Resources Development Project of Huai Mon Nam Suai and Huai Luang River Basin
3. SECTOR 5. COUNTERPART AGENCE TIME OF DEVELOPMENT	
PRESENT COUNTERPA	RT AGENCY
6. OBJECTIVES OF THE STUDY	To formulate a M/P, focusing on water resources development in the upper stream area and flood prevention in the lower stream area for irrigated agriculture in Huai Mon Nam Suai and Huai Luang River Basin.
7. CONSULTANT(S)	Sanyu Consultants Inc.
8. STUDY PERIOD	Sep.1995 ~ Jun.1996 9month(s)
9. SITE OR AREA	Three river basins of the Huai Mong, the Nam Suai and the Huai Luang which are a tributary of the Mekong and are ocated in the Northern part of the Northeastern Region
10. MAJOR PROPOSED PRO 1) Project Area 2) Cropping Intensity 3) Dam 4) Irrigation Canal 5) Drainage / River Improver 6) On-farm Development 7) Rural Infrastructure	: Irrigation Area 1,000 ha : Wet Season 100%, Dry Season 40%, Total 140% : Earthfill Dam, H=26m, L=150m, Storage 12.2MCM : 32km

ASE

ASE THA/A 102/96 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

Subsequent Study:

(FY 1997 Domestic Survey)

- 1) RID already sent the M/P report in order to implement the subsequent study of agricultural water resource development plan in Mong, Suai, and Luang Rivers.
- 2) Huai Mong Basin

RID formulate medium scale development for detailed design in 1999, but the present economic condition is not good, this project will be postponed.

(FY 1999 Overseas Survey)

Huai Mong Irrigation Project: F/S is conducted from 2000 to 2001 by local fund.

(FY 2001 Domestic Survey)

The F/S of Mong Dam was planned from 2000 to 2001, but it was postponed due to the lack of the budget. The F/S will be undertaken in 2002.

Finance:

(FY 2001 Domestic Survey)

1. Construction of Mong Dam

Finance:local fund

Conctruction:

(FY 2001 Domestic Survey)

1. Construction of Mong Dam

On going (expected completion periods: 2-3 years)

(FY 2002 Overseas Survey)

Huai Mong Headwork, Huai Mong Weir downstream: completed

Feasibility Study for Huai Mong Dam which was planned to be carried out in 2002 has not started due to the necessity of the project have to be reviewed and reconsidered.

# STUDY SUMMARY SHEET (M/P)

(M/P) Compiled Jun.1997

ASE THA/S 110/96 Revised Mar.2008

1.					
2.	NAME OF STUDY	Urban Environmental Improvement Program in Bangkok Metropolitan Area			
	SECTOR	Administration	/ Environmental Problems 4. TYPE OF STUDY M/P		
5.			Bangkok Metropolitan Administration, Public Works Department		
	COUNTERPART AGEN	ICY AT THE			
	TIME OF DEVELOPME				
	PRESENT COUNTERPA	ART AGENCY			
			M/P on comprehensive urban environmental improvement for promoting the development of urban		
		function in Bang	gkok Metropolitan Area.		
6.	OBJECTIVES OF THE				
0.	STUDY				
			ants International		
7.	CONSULTANT(S)	Research, Analy	ysis and Computing		
		Aug.1995 ~	Feb.1997 18month(s)		
8.	STUDY PERIOD	Aug.1993 ~	reo.1997 foliolidi(s)		
		Bangkok Metro	politan Area		
9.	SITE OR AREA				
<b></b>	SILL ON HALL				
10.	MAJOR PROPOSED PR	ROJECT(S)			
	ass Rapid Transit System				
	ıb-center Development	•			
	ewerage and Drainage De				
- Tı	ansit Facilities and Final	l Disposal Sites for	or Solid Waste Management		

ASE THA/S 110/96 M/P

PRESENT STATUS
Delayed
Discontinued

#### **Description:**

(FY 1997 Domestic Survey)

The following projects proposed by the Study Team and the projects positioned in the Urban Environmental Improvement Master Plan are on-going for implementation:

(1) Sewerage Project

(FY 1997 Domestic Survey)

It is proceeded with OECF Loan.

Subsequent study:

(FY 1998 Domestic Survey)

Dec.1998~April 1997

OECF SAPROF (50 mil.yen)

(2) Sub-center Development

(FY 1997 Domestic Survey)

Feasibility Study on it was requested to GOJ as JICA Development Study.

(FY 1998 Domestic Survey)

BMA is to request for F/S.

(FY 2001 Domestic Survey)

The request was made to JICA. Waiting the answer.

(3) MRTA Initial System Project (Blue Line)

Finance:

(FY 1998 Domestic Survey)

27 Sep.1996 L/A 26,586 mil.yen(MRTA Initial System Project (I))

30 Sep.1997 L/A 32,659 mil.yen(MRTA Initial System Project (II))

(FY 1999 Domestic Survey)

30 Sep.1998 L/A 23,343 mil.yen (MRTA Initial System Project (III))

(FY 2001 Domestic Survey)

29 Sep.1998 L/A 33,461 mil.yen (MRTA Initial System Project (IV))

Construction:

On-going

(FY 2001 Domestic Survey)

The construction had been divided into 3 packages of northern and southern parts and car depository and has been proceeding.

(4) Solid Waste Management

(FY 1997 Domestic Survey)

BMA tried to find private sector to operate transit facilities and final disposal, but it is still uncertain.

(FY 1998 Domestic Survey)

It was planned to develop the final disposal sites by BIT scheme. Since bids were unsuccessful, implementation with OECF loan is under consideration.

(FY 2001 Domestic Survey)

Although the SAPROF was made in order to introduce the incinerator in 2000, the Yen loan is not provided yet.

Application of the result of this Study:

(FY 2001 Domestic Survey)

"Urban Environment Geographic Information System" provided by this Study is applied to "Master Plan of Urban Railways in Bangkok" which is under implementation.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Jul.1998
ASE THA/S 109/97 Revised Mar.2008

AL		
1.	COUNTRY	Thailand
2.	NAME OF STUDY	he Western Seaboard Regional Development
3.	SECTOR	Development Plan / (Development Plan in) General 4. TYPE OF STUDY M/P
5.	COUNTERPART AGENO	
	PRESENT COUNTERPA	
6.	OBJECTIVES OF THE STUDY	Make a master plan for 6 provinces in the Western Seaboard of the Gulf of Thailand for 1. integrated regional development lan, 2. institution for the project, 3. priority project and making of an action program for institutional development, and 4. echnical transfer.
7.	CONSULTANT(S)	lippon Koei Co., Ltd. ADECO Co,. Ltd.
8.	STUDY PERIOD	an.1996 ~ Jul.1997 18month(s) ~
9.	SITE OR AREA	provinces in the Western Seaboard (Kanchanaburi, Ratchaburi, Phetchaburi, Samut Songkhram, Prachuap Khiri Khan, nd Chumphon)
10.	MAJOR PROPOSED PR	JECT(S)
1 T	7 1 1 14	· / / / / / / / / / / / / / / / / / / /

- 1. Kanchanaburi tourism promotion development (USD 43 million)
- 2. Kanchanaburi agricultural intensification development (USD 15 million)
- 3. Bang Pong industrial/distributional development (USD 269 million)
- 4. Samut Songkhram free trade area development (USD 800 million)
- 5. Petchaburi Science City development (USD 2,244 million)
- 6. Bang Saphang free trade area development (USD 465 million)
- 7. Chumphon tropical fruit development (USD 194 million)

ASE THA/S 109/97 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 1998 Domestic Survey)

Continuous support by the Japanese project-type technical cooperation is requested.

1. Chumphon Tropical Fruit Center Project

Japanese experts are requested for the following development programs.

- 1. Long-term expert for tourism development
- 2. Short-term expert for traffic safety

(FY 1999 Overseas Survey)

- 1. Kanchanaburi-Tavoy Corridor Development Plan: The road construction will start in June 2000.
- 2. The construction of the Regional Link Road (North-South Link) by the government budget is examined.
- 3. Hua Hin Airport Expansion is under implementation.
- 4. The Mangrove Preservation Program in Samut Songkhram is under operation.
- 5. The development of a scenic coastal road is examined by Public Works Development and the Department of Highways.
- 6. The Independent Power Produces (IPP) Project in Prachuap Khiri Khan for providing energy in Bang Saphan and the nearest area is examined by the Cabinet.
- 7. The Industrial Estate Expansion in Bang Saphan Area is examined by Sahaviriya Group.

(FY 2001 Overseas Survey)

- 1. Kanchanaburi-Tavoy Corridor Development Plan: The road construction will start in Jan. 2002.
- 2. The development of the Regional Link Road is under implementation, and there will be a seminar on this issue chaired by the Minister of Transportation and Communication at the beginning of 2002 in Kanchanaburi Province.
- 3. Hua Hin Airport Expansion is under operation.
- 4. The Mangrove Preservation Program in Samut Songkham is under operation.
- 5. The development of a scenic coastal road is still examined by the Ministry of Interior.
- 6. The Independent Power Produces (IPP) Project in Prachuap Khiri Khan is still under consideration by the Cabinet.
- 7. The Industrial Estate Expansion in Bang Saphan Area is still examined by the industrial Estate Authority of Thailand and Sehaviriya Group.

(FY 2002 Domestic Survey)

Subsequent Studies:

- 1. The study was conducted for 6 months from Aug. 2000. The study proposed a plan for a dam project aimed at irrigation development And, water supply for the Bang Saphang free trade zone is proposed. The study was conducted in technological, environmental, and economical aspects.
- 2. F/S was conducted for 5 months from Sept. 2000. F/S is related to water transmission through a pipeline from Tasae Dam.

(FY 2002 Overseas Study)

- 1. Kanchanaburi-Tavoy Corridor Development Plan: The road construction will start in early 2003 after the political situation between Thailand and Myanmar becomes
- 2. Development of the Regional Link Road: A seminar will be held at the beginning of 2003 in Kachanaburi Province.
- 3. Hua Hin Expansion: Prepared for operation.
- 4. Development of a scenic coastal road: The Department of Highway is conducting a feasibility study on the road between Samut Sakhon Province and Ban-Lam/Cha-am District.
- 5. Independent Power Producers (IPP) in Prachauap Khiti Khan: Delayed for 2 years due to the shortage of power supply. The Cabinet plans to review this project in 2004/2005.
- 6. Industrial Estate Expansion in Bang Suphan Area: under examination by IEAT and Sahaviriya group.
- 7. Industrial development in Kanchanaburi Province: Strongly requested by IEAT and tannery, leather finishing, and textile bleaching and finishing companies which will relocate from Bangkok.

(FY 2003 Domestic Study)

1. Tasae Dam Construction Project:

Fundraising: Approved by the cabinet in July 2003, and land acquisition started in FY 2004 (from October 2003 onward).

Construction: Construction is expected to start for a directly operated part such as gates.

2. Kanchanaburi-Danaway Road Construction Project:

Although a joint venture between the Kanchanaburi Chamber of Commerce and Myanmar was established in 2001, the construction has not progressed. The problem appears to lie in logistics. There is a possibility that the project will be included in the Thai aid program for Myanmar.

3. Bang Saphani Industrial Park Project:

The project has not progressed due to the financial deterioration of the Safaveri group. It is partly because of the uncertain implementation of water conveyance due to the delay in the commencement of the Tasae Dam.

(FY 2003 Overseas Study)

- 1. Kanchanaburi-Tavoy Development Plan: The Thai-Myanmar joint venture company, Tavoy Development Company is constructing a road. Works from the design to the first phase construction (2 lanes) are planned to be finished within 4 years.
- 2. Regional Link Road (North/South): The road development is smoothly in progress. There are some parts discussed by CEO.
- 3. Scenic Coastal Road: the cabinet considers the construction of new roads between Samut Sakhon and Ban Laem/Cha-am. The project progress is under investigation.
- 4. Bang Saphan Industrial Estates Expansion: The project is under implementation. The Sahaviriya Group will start investment in downstream industry and port expansion. Also, the Group is also examining investment on upstream industry, according to the latest news.
- 5. Industrial Development in Kanchanaburi Province: Kanchanaburi Industrial Estate will be developed as a relocation destination for tannery, leather finishing, and textile bleaching and finishing companies.

(FY2007 Domestic Survey)

No information to be specifically mentioned.

**(F/S)** 

Compiled Jul.1998

AS	SE THA/A 3	314/97			Revised	Mar.2008
1.	COUNTRY	Thailand				
2.	NAME OF STUDY	Fishery Comple	x on Andaman Sea Coast			
3.	SECTOR	Fishery	/ Fishery	4. TYPE OF STUDY	F/S	
5.			Department of Fisheries, Ministry of Agriculture and C	ooperatives		
	COUNTERPART AGEN TIME OF DEVELOPME					
PRESENT COUNTERPART AGENCY						
			ter plan for the establishment of a fishery complex on the East Indian Ocean and the Andaman Sea, and to conduct			se of
7.	CONSULTANT(S)	TETRA Co., Ltd System Science	d. Consultants Inc.			
8.	STUDY PERIOD	Dec.1995 ~	Aug.1997 20month(s)			
Andaman Sea Coast Area  10. MAJOR PROPOSED PROJECT(S)  1. Wharf for Large Purse Seiners and Carrier Vessels <landing 137="" 155="" 210="" <lay-by="" boat:="" deep-sea="" fishing="" liner:="" long="" m="" m,="" offshore="" purse="" seiner:="" thai="" wharf-="" wharf:="">Thai offshore fishing boat: 115 m, Long liner: 380m (available extension: 320 m)  2. Functional Facility  (1) Land improvement (site: Si Rae Island, FMO owned: approx. 65.4 ha)  (2) Infrastructure development (city water, electricity, water treatment facilities)  (3) Marketing hall for fish landing(324 m enlargement to southwards)  (4) Office establishment (FMO office, DOF office, radio communication system, custom and immigration office)  (5) Construction of cold storages  (6) Construction of supply facilities for sea water  (8) Establishment of rubbish disposal areas  (9) Establishment of fishing gear repairing areas  (11) Construction of fishing gear repairing areas  (12) Fish box storing area  (13) Service building for wharf workers</landing>						

ASE THA/A 314/97 F/S

	Completed or In Progress	Promoting
DDECENIE CTATUC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Situation:

(FY 1998 Domestic Survey)

- 1. The current fishery situation shows tendency toward a decrease in fish catch volume by present fishing operation in Thai territorial waters in the Andaman Sea. The tendency leads Thai fishery to necessity of stock control and new fishing ground development for sustainable fishing in the Thai waters of Andaman Sea and Indian Ocean. The former represents necessity to introduce resource management to fishing in Andaman Sea, and the latter means development of tuna fishing in the sea and Indian Ocean. Fishery Complex Project is planned to develop Phuket Fishing Port as a pilot fishing port for the future fishery development.
- 2. The present project aims to relocate fish processing plants to the estate. Implementation of the project will enable to reduce transportation costs for processing plants in Phuket and other provinces since these plants will obtain stable supply of reasonable raw materials from the Phuket Fishing Port. The products will be consumed domestically or exported to international markets.
- 3. Investment in fishing port facilities for the existing fishery will be minimized by utilizing the existing facilities efficiently. The project will provide exclusive landing wharves which are expected to improve landing efficiency and exclusive wharves for lay-by and preparation.
- 4. One segment of this project proposes the relocation of fish processing factories in Bangkok and its surrounding areas of the project site. This relocation is recommended in terms of environmental conservation, alleviating disparities between urban and rural areas, and it is in line with the national plan. In addition, relocated factories will receive special tax benefits. Some of the infrastructure of the industrial estate, low interest capital for relocation activities, procurement of labors, low purchasing cost of raw materials, etc. can attract factories. Therefore, the "Phuket Industrial Estate Operation and Management Committee" should be established to promote the cooperation of related agencies and private companies through an exchange of opinions and information. This committee will consist of members from DOF, FMO, IEAT, Thai Industrial Financing Corporation, regional autonomous bodies, other public agencies, fish processors, and raw material importers from private sectors.
- 5. Total project cost is estimated to be THB 2,860 million and construction term is estimated to be 4 years for civil works and FMO facilities and 3 years for construction of processing plants.
- 6. The EIRR of the project was 12.02%, and the project is evaluated to be feasible from a viewpoint of the national economy. The FIRR of the project exceeds the interest rate of loan. The project is financially viable because the project can be profitable and financially sound.

(FY 1999 Overseas Survey) (FY 2001 Domestic Survey)

A request for conducting a subsequent study (2001-2004, USD 1million) was submitted to JICA.

A request for ODA loan (THB 1,920 million) will be submitted after the Cabinet approval in April 2000.

(FY 2003 Domestic Survey)

The Thai government has not submitted a request for JBIC loan. There is little possibility to submit the request in the near future.

# STUDY SUMMARY SHEET (M/P+F/S)

ASE THA/A 222/98 Compiled Dec.1999
Revised Mar.2008

1. C	COUNTRY	111/11 2	Thailand					Revised Will.20
2. N	NAME OF STU	DY	Integrated Agric	culture Develo	pment in the Ag	ricultural L	and Reform	Areas in the Upper Northeastern Region
3. SI	ECTOR		Agriculture	/	(Agriculture in)	General		4. TYPE OF STUDY M/P+F/S
	OUNTERPART			Agricultural I	and Reform Of	fice, Minist	ry of Agricul	lture and Cooperatives, Thailand.
5.	EVIE OF DEVE		VI SIODI					
PI	PRESENT COUNTERPART AGENCY							
	BJECTIVES O FUDY							velopment plans; 2)To establish guidelines to t technology transfer to Thai counterpart personnel
7. C	ONSULTANT(		Sanyu Consulta	nts Inc.				
8. ST	TUDY PERIOD	)	Dec.1996 ~	Jul.1998	19month(s)			
	ITE OR AREA							
	IAJOR PROPO		OJECT(S)					
Projec	et Cost (1,000 ] 1)K	hon Kae	n 2)Maha Sa	arakham 3)	Mukdahan	4)Sakon Na	akhon	
I.Con		75,370	44,6	590	28,885	86,741		
Farm 1		27,750	18,3		10,125	23,592		
		47,620	26,3		18,760	63,149		
2.Desi	•	10,944		701	4,027	14,24		
	ninistration tingency	7,537 9,385	4,4 5,5		2,889 3,580	8,674 10,966		
	alation	8,845	5,2		3,412	10,436		
Γotal		112,081	66,7		42,793	131,062		
Cost p	er Rai	3.05	4	.57	4.98	5.22	2	
Projec	ct Evaluation							
1 100	2 (0/)			Iaha Sarakhan			kon Nakhon	
1. IRR 2. B/C	C (%)			10.6 (21.0) 0.92 (1.62)	10.9 (1 0.94 (1		11.4 (19.6) 0.96 (1.50)	
3. Sen	sitivity Analys	sis 15.	9 (23.0)	9.1 (19.0)	9.4 (1		9.8 (16.4)	
	RR, cost over-r			).1 (1).0)	).+ (I	,	5.6 (10. <del>4</del> )	

ASE THA/A 222/98 M/P+F/S

PRESENT STATUS	Completed or In Progress	Promoting	
	Completed		
	Partially Completed	Delayed or Suspended	
	Implementing		
	Processing	Discontinued or Cancelled	

#### **Description:**

1) Evitalization of Deteriorated Environment of Land Reform Area through Integrated Agricultural Development / Stage 1 Finance:

(FY 1999 Domestic Survey)

30 Sep. 1998 L/A 3,617mil.yen "Revitalization of the Deteriorated Environment in the Land Reform Areas through Integrated Agricultural Development (Stage I)" \*Project components

Project period: 2000 - 2003 (48 months).

- 1.Development of integrated agriculture: 1)Construction and maintenance of agricultural infrastructure (construction of farm ponds, community ponds, farm and village roads, and irrigation facilities, and production of maps of all the project areas; 2)Procurement of goods and equipment; 3)Conserving protected areas adjacent to LRAs and the environment in and around LRAs (soil and water conservation by means of reforestation, etc.).
- 2.Consulting services: 1)Detailed design, assistance related to tenders and project construction supervision; 2)Technical assistance to farmers for promoting integrated agriculture; 3)Conducting training for staff members of ALRO.

The procedure of consulting and procurement is currently in progress. The implementation will be started immeadiately after the evaluation.

#### Construction

(FY 2001 Domestic Survey)

Period: Feb.2001-Nov.2004. The followin works are implemented in the four provinces of Khon Kaen, Maha Sarakham, Mukdahan, and Sakon Nakhom.

- 1. Design and construction of small farm pond, midium farm pond, and farm roads.
- 2. Instruction on agricultural production, stockbreeding promotion, and horticulture promotion.
- 3. Instruction on marketing system planning, farmers organiation, and farmers participation.

Contractor: Design/consturction management/instruction to farmers: Consaltants J/V

Situaiton of progress: Construction: Local medium and small sized contranctors.

(FY 2003 Domestic Survey)

45% of construction completed

#### (FY 2002 Overseas Survey)

- 1) Development of Rural Community and People Organization Network
- Strengthening the people's organization: 50 farmers' group and 2,350 farmers are strengthened by the project.
- Training for communities and people's organization: 29 training courses on community and 860 farmers attended the course.
- Study tour for community and people's organization: 23 trips and 546 farmers are organized by the project.

#### 2) Infrastructure Development

- Farm pond: 1,980 farm ponds are now being in the construction contract of which 527 sites are completed. The remained farm ponds will be completed in the next rainy season.
- Enlargement of Existing Farm Ponds: 372 sites out of 469 applied sites are found eligible and suitable, but the construction has not started.
- Community Ponds: 20 sites out of 35 applied sites are found eligible and suitable. The construction started in Oct. 2002 for the first 4 sites.
- -Farm and Village Roads: Total of 587.9 km of the roads are completely designed. 249.2 km are now being in the construction contract.
- New Irrigation Facilities: Design is nearly completed and now being revised.
- Soil and Water Conservation: The design has been completed. Bid will be issued during Nov. to Dec. 2002.
- 1/4,000 Topographic Mapping: At the end of Oct. 2002, 75% of work was accomplished.

#### 3) Agriculture Development

- Integrated Farming Development: The project organized training courses and study tour on Integrated farming and involved activities to about 10,000 farmers.
- Agricultural Land Reform Fund for Agricultural Development: ALRO has approved the agricultural credit to 1,240 farmers at the amount of 25.75 mil. Baht.
- 4) Environmental Revitalization and Forest Conservation
- 13 training courses (involved 400 farmers) and 7 study tours (involved 250 farmers) were organized by the project.
- 2) Evitalization of Deteriorated Environment of Land Reform Area through Integrated Agricultural Development / Stage 1

# STUDY SUMMARY SHEET (M/P)

Compiled Jun.2000

AS	SE THA/S 103/9	99				Revised	Mar.2008
1.	COUNTRY	Thailand					
2.	NAME OF STUDY	The Study on Airport Development Master Plan in the Kingdom of Thailand					
3.	SECTOR	Transportation / Air Transportation & Airport 4. TYPE OF STUDY M/P				M/P	
5. COUNTERPART AGEN TIME OF DEVELOPMI		CY AT THE	Development of Aviati	on (DOA), Ministry of Ti	ransport & Communications		
	PRESENT COUNTERPART AGENCY						
6.	OBJECTIVES OF THE STUDY	2) To select 10 o 2017,	or less priority airports f	From the 31 DOA airports	at plan for the DOA's airports ut, and formulate the master plan ag the course of the Study by n	ns for these up to	the year
7.	CONSULTANT(S)	Pacific Consultants International					
8.	STUDY PERIOD	Mar.1998 ~	Jan.2000	22month(s)			
	SITE OR AREA	Regional airport	s in Thailand				
10.	MAJOR PROPOSED PR	OJECT(S)					

## 1) Five airports were selected for priority airport development and the conceptual airport plans and their rough economic analysis for these airports were carried out

<sup>2)</sup> In order to meet growing demand for air transport in the future, expansion projects of three existing airport and construction of two airports were proposed for Lampang, Mea Hong Son and Phrae airports and also for Betong and Mukdahan airports, respectively.

ASE THA/S 103/99 M/P

PRESENT STATUS	In Progress or In Use
	Delayed
	Discontinued

#### **Description:**

(FY 2002 Domestic Survey)

After the economic crisis in Thailand in 1997, the privatization policy was introduced by the Thai Government in parallel with the IMF aids. Since then, the institution of civil aviation has been examined including the organization separation of the DOA and airport ownership. In addition, there has cast the financial policy to shrink the budget, it has not yet decided who will run the regional airports. Because of these conditions in Thailand, implementation of the projects is not certain.

(FY 2003 Domestic Survey)

Under present circumstances, with downturn of local airports and the basic policy of the aeronautical station focusing on strengthening of safety regulations, priority of airport improvement has been relatively lowered.

(FY 2003 Overseas Survey)

While a part of extension constructions shown bellow are in progress, the construction project of new airport is considered difficult to be implemented.

Lampang: Extension construction of a runway

Mae Hong Son: Extension construction of an apron

(FY 2004 Domestic Survey)

No information

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P)

Jun.2000

Compiled

**ASE** THA/S 104/99 Revised Mar.2008 1. COUNTRY Thailand Master Plan on Sewege Sludge Treatment/Disposal and Reclaimed Wastewater Reuse in Bangkok 2. NAME OF STUDY 3. SECTOR Public Utilities / Urban Sanitation TYPE OF STUDY M/P 5. Bangkok Metropolitan Administration (BMA) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY To Formulate the M/P on effective sewage sludge treatment/ disposal and reclaimed wastewater reclamation in BMA area. OBJECTIVES OF THE 6. STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) Sep.1998 Nov 1999 14month(s) 8. STUDY PERIOD Bangkok Metropolitan Administration Area (1,569km2) 9. SITE OR AREA

#### 10. MAJOR PROPOSED PROJECT(S)

- 1) In this M/P, 9 new sewerage development program were proposed diving and combining the existing plans. The combined sewerage system applying interceptors was adopted.
- 2) The night soil collection and disposal system was planned based on the division of 4 collection areas and estimated amount of night soil for 2020 was 2,445 m3/d.
- 3) Out of the total generation of treated wastewater for 2020, watering to street plants with the amount of 15,000 m3/d and khlong purification with 23,000 m3/d ware proposed. The realization of khlong purification will be totally depends on the future necessity and demand.
- 4) For sludge disposal, the following 3 scenarios ware considered in compliance with heavy metal inclusion.

Scenario 1(Agricultural reuse):

Low risk sludge: All the sludge are used for organic fertilizer after composting

High risk sludge: All the sludge are disposed to the landfill site after dewatering

Scenario 2 (Incineration introduction)

Low risk sludge: All the sludge are used for organic fertilizer after composting

High risk sludge: Up to 2009: All the sludge are disposed to the landfill site after dewatering

After 2010: 75% of sludge are disposed to the landfill site [after dewatering, The rest(25%) is incinerated.

Scenario 3(50% Agricultural reuse):

Low risk sludge: 50% of sludge is used for organic fertilizer after composting. The rest(50%) of sludge is disposed to the landfill site after lewatering.

High risk sludge: All the sludge are disposed to the landfill site after dewatering.

5) When the sludge is used for agricultural purpose, compost plant construction at the North, West and East provinces were proposed. The detail construction site will totally depends on the results of future market survey and the demand surveys.

ASE THA/S 104/99 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

#### (FY 2000 Domestic Survey)

After completion of wastewater system in Bangkok, the proposed sludge treatment system will be carried out.

At the moment, the Wastewater system in Bangkok is still first stage, so it may take more than 5 years to start the proposed Sludge Treatment System

#### (FY 2001 Domestic Survey)

There are 9 projects on the sewage by the BMA and 3 projects of them were already completed. It seems to take a time for the proposed projects by this Study because they are started after the completion of the projects on the sewage.

#### (FY 2002 Overseas Survey)

The reason of the status of delayed:

The Central Sludge Treatment Construction that is the precondition of this proposed project has been delayed and just completed in 2002. The proposed project will be implemented within 1 or 2 years.

#### Current Status:

BMA tries to operate and set some equipment to get suitable treatment systems. Sludge characteristics from digestion are also being analyzed to find out risk assessment according to JICA's method in ranking procedure. After BMA gets the conclusion of sludge risk level, BMA will select the appropriate way for disposal, from the proposed scenarios in this Study.

#### (FY 2003 Domestic Survey)

Improvement of sewerage facilities in Bangkok are underdeveloped because the Bangkok City Government has difficulties in fund raising of the vast capital required to complete the improvement of sewerage facilities in the whole area of Bangkok and because Thailand restricts borrowing of loans from foreign donors as its national policy. Since improvement of sewage treatment plants is especially underdeveloped, there is little generation of sludge and thus, there is no opportunity for recycling the sludge.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2004 Overseas Survey)

The characteristics analysis of purified sludge, to clarify a risk assessment, showed low risk of a heavy material pollution, according to the ranking methods of JICA. Therefore, as proposed in Plan 1 of the JICA Master Plan 1, sludge will be utilised as organic fertiliser after been composted.

For the possibility of utilising sludge as organic fertiliser social, economic, and environment impact analysis will be conducted to determine the possibility of re-cycling sludge. Research proposal for sludge composting has been prepared before requesting budget to the mayor.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2005 Overseas Survey)

BMA is planning to implement a detail design study on sewage sludge composting plant in FY 2007. The objectives of the study are to develop sewage sludge quality after digestion in order to utilise in agricultural land, and to prepare tender documents, and to prepare composting plan in order to estimate construction cost. The project requires approval of the governor before requesting for the fund. Composed sludge is planned to be used in BMA public parks and BMA district office as an organic fertiliser.

(M/P+F/S)

Compiled Jun.2000 **ASE** THA/S 209/99 Revised Mar.2008 1. COUNTRY Thailand The Study on Integrated Plan for Flood Mitigation in Chao Phraya River Basin NAME OF STUDY 3. SECTOR / River & Erosion Control 4. TYPE OF STUDY M/P+F/S Social Infrastructure Royal Irrigation Department, Min. of Agriculture and Cooperative COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY 1) To Formulate an integrated Master Plan of flood control in the Chao Phraya Ruver Basin 2) To conduct a Feasibility Study on urgent and /or priority projects identified through the Master Plan study 3) To carry out technology transfer to the Thai counterpart personnel in the course of the study **OBJECTIVES OF THE** STUDY CTI Engineering International Co., Ltd. 7. CONSULTANT(S) **INA Corporation** Dec.1996 Aug.1999 32month(s) 8. STUDY PERIOD M/P: Entire Chao Phraya River Basin (164,000km2) F/S: Entire Chao Phraya River Basin (164,000km2) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) < M/P >(1)Alternative-1: Modification of Dam Operation: 2000 Improvement of Drainage and Water Distribution in Agricultural Areas: 2001-2018 River Improvement in Delta Area (Return Period of 10 years): 2001-2005 (2)Alternative-2: Modification of Dam Operation: 2000 Improvement of Drainage and Water Distribution in Agricultural Areas: 2001-2018 River Improvement in Delta Area( Return Period of 10 years): 2001-2005 Heightening of Bangkok Barrier: 2004-2007 (3)Alternative2-2: Modification of Dam Operation: 2000 Improvement of Drainage and Water Distribution in Agricultural Areas : 2001-2018 River Improvement in Delta Area ( Return Period of 25 years): 2001-2005,2016-2018 Diversion Channel (Ayuttaya-East Bangkok-Sea): 2005-2013, 2013-2016  $\langle F/S \rangle$ (1) Modification of Operation Rules for 3 Dam Reservoirs (Sirikit, Bhumipol, Pasak): 2001 (2)River Improvement in Delta Area(Return Period of 3 years): 2001-2005

ASE THA/S 209/99 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

#### (FY 2000 Domestic Survey)

A request of implementation of a Feasibility Study on the proposed diversion channel was expected to be submitted soon from the Thai government when this study was completed. However, coordination towards the Feasibility Study among the agencies concerned has not been made well. Any concrete progress has not been seen so far not only for the Master Plan but also for the F/S projects.

#### (FY 2001 Domestic Survey)

The main counterpart agency, RID and EGAT should mutually agree and cooperate to materialize the priority project as the basic agreement was made at the time of Study. However, there is a financial problem on the exact implementation and there is no progress.

Moreover, although the request for F/S on the Flood Control Channel Project was made by the Bangkok Metropolitan Agency, the RID is not working positively because the project scale is big, therefore the Japanese side is keeping wait-and-see attitude.

The situation to be materialized of the other proposed projects is not well.

The organizations concerned recognized well the importance of the implementation of disaster control because the flood disasters have been occurred frequently after the Study. However, the ONWRC (the Office of National Water Resource Committee) which would be the rightful to take an initiative to coordinate the related organizations (RID, EGAT, PWD and others) cannot work effectively because of the lack of finance and personnel. To support for this matter might be important.

#### (FY 2002 Domestic Survey)(FY 2003 Domestic Survey)

The request for F/S of Construction of Tailwater project was submitted to Japanese Govt., as was proposed by the M/S. Since Japan has pointed out the necessity of reaching agreement among Thai concerned organizations, the project seems to have been brought to the deadlock. However, Thai Govt. recognizes the importance to implement F/S, and it is anticipated that projects may got rolling, according to changes in situations.

#### (FY 2002 Overseas Survey)

The alternative 2-2 is selected and approved by Office of National Water Resources committee for continuing consultation with agencies concerned to formulate the implementation process. According to the serious flood in 2002, the government is considering to implement flood mitigation program in Chao Phraya Basin by using the proposed plan from this Study and the additional study are formulated by RID and other agencies concerned.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2005 Domestic Survey)

Although a F/S study on diversion channel in Chao Phraya River was proposed as a subsequent study, the C/P could not make an internal agreement.

#### (FY 2005 Overseas Survey)

Several project proposed in the study has been scrutinised by RID to mitigate flood disaster of Chao Phraya River.

(F/S)

ASE THA/S 306/99 Revised Mar.2008

1. COUNTRY Thailand

1.	COUNTRY	Thailand
2.	NAME OF STUDY	The Study on the Kok-Ing-Nan Water Diversion Project
3.	SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	Royal Irrigation Department, Ministry of Agriculture and Cooperatives  CY AT THE
	PRESENT COUNTERPA	
6.	OBJECTIVES OF THE STUDY	The Kok-Ing -Nan Water Diversion Project is the transbasin water resources development project that has been propelled by the Thai government as a National Project to cope with the chronic shortage of water prevailing in the Chao Phraya basin.
7.	CONSULTANT(S)	Sanyu Consultants Inc. Nippon Koei Co., Ltd.
8.	STUDY PERIOD	Dec.1997 ~ Dec.1999 24month(s) ~
9.	SITE OR AREA	Northern part of Thailand (Kok and Ing River)
10	MA IOR PROPOSED PR	OFCT(S)

#### 10. MAJOR PROPOSED PROJECT(S)

The diversion canal and tunnels of about 150 km long, consisting of the following facilities, are required by the Project.

- 1. Kok Intake: At the intake structure to be constructed immediate upstream of the existing Chiang Rai weir, water is diverted from the Kok river with water levels raised by the Chiang Rai weir.
- 2. Kok to Ing Diversion Canal: A series of open canal, siphon, tunnel and culvert with a total length of 54.4 km and a capacity of 140 cu.m/sec to link the Kok intake and the Ing diversion weir.
- 3. Ing Diversion Weir: A rubber-type weir constructed on the Ing river near Amphoe Thoeng to divert 175 cu.m/sec of water from the Ing river together with the diverted from the Kok river.
- 4. Lao Diversion Canal: Diversion canal of 13.1 km long and 175 cu.m/sec capacity to connect the Ing diversion weir and the Ing Yot tunnel, consisting of open canal, siphon, tunnel and culvert.
- 5. Ing-yot Tunnel: The diversion tunnel of 50.9 km long and 175 cu.m/sec capacity with 7 adits of 17.4 km long in total is planned to transport the water transbasin from the Ing basin to the Nan basin connecting the outlet of the Lao diversion canal and the Yot river, a tributary of the Yot river.
- 6. Yao Flood Control Dam: This works to control flood runoffs during wet season from the upstream reaches of the Yao river and to provide in dry season irrigation water to the beneficiary areas situated along the Yao and Nan river.
- 7. Yao River Training Works: Improvement works of Yao river channel extending over 41.9 km to let the 200 cu.m/sec at most of discharge flow smoothly

ASE THA/S 306/99 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

#### (FY 2000 Domestic Survey)

This project is expected to be implemented by JBIC loan, however, no concrete action has been taken for the realization.

#### (FY 2001 Domestic Survey)

The last public hearing was held in Nan Province from June to July 2001. Rehabilitation of some irrigation facilities is in progress from the viewpoint that water users in each basin should be provided with enough water before the Kok-Ing-Nan Water Diversion Project is started.

#### (FY 2002 Domestic Survey)

This project is a huge project, with a cost of reaching 2 trillion Yen. The project becomes infeasible, unless local residents' requirements are satisfied. Royal Irrigation Department (RID) conducted a Study, and is currently preceding/examining formulation of plans for irrigated agriculture is under consideration.

#### (FY 2002 Overseas Survey)

Following precedent projects of each basin had been getting the government budget, 2 projects in designing stage in the last 2 fiscal year and one another in designing stage and also in the EIA stage in last fiscal year.

- 1) Nong Lunag Swamps Improvement Project Kok river basin
- 2) People's Irrigation Weir System Improvement in Ing river basin
- 3) Samun Irrigation Resevoir in Nan river basin

The three selected projects of each basins so called 'Samoon Reservoir Project, the above 1) and 2) have been launched on detail design level during Thailand Fiscal Year 2002-2003.

#### (FY 2003 Domestic Survey)

Soon after the completion of the study, the nation experienced the currency/economic crisis in 1997. As a result, with rapid decrease in water demand, the momentum for the project has lowered and remained short of development into the next step up to now.

However, under the favorable economic growth of recent years and the strong leadership of the current Thaksin administration, solution of water shortage in the near future is promoted as an important policy and the momentum for implementation of a large-scale water conveyance project such as Kok-Ing-Nan is examined including the alternative plan. Thus it is likely that the project may enter the implementation stage in a stroke depending on the situation.

#### (FY 2003 Overseas Survey)

RID has submitted the F/S EIA Report to the Environmental Policy/Planning Office, Ministry of Science, Technology and Environment and is waiting for the result of deliberations at present.

#### (FY 2004 Domestic Survey)

In recent years, Thai Gov. is enthusiastically propelling corporative projects with neighbouring countries. In water development/management field, it is conducting a research taking into account the perspectives of irrigating water from neighbouring countries to supplement water shortage in dry season. Therefore, storage and irrigation of water in dry season from neighbouring countries, which were not on a premise of the project, is becoming to have a possibility and is emerging as an effective irrigation plan to replace Kok, Nan, Ing water irrigation project. For this reason, Ministers of Myanmar and Thai have signed a MOU to promote bilateral agreement on water development/management, which the irrigation project is on the ripe to be propelled as a improved version of the Kok, Nan, Ing water irrigation project.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Oct.2002

AS	SE THA/S 20	06/01						Revised	Mar.2008
1.	COUNTRY	Thailand							
2.	NAME OF STUDY	The Master Plan	n Study for the Coas	stal Channels an	d Ports Developmer	nt			
3.	SECTOR	Transportation	/ Port			4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGENTIME OF DEVELOPME		Marine Departmen  Marine Departmen	•	artment)				
	PRESENT COUNTERPA	ART AGENCY	Marie Bepartier						
6.	OBJECTIVES OF THE STUDY	with the target y	rm development pla year of 2020 as well an and a port mainte	as a short-term	development plan w				
7.	CONSULTANT(S)	Pacific Consulta	ants International						
8.	STUDY PERIOD	Jan.2001 ~	Feb.2001	1month					
	SITE OR AREA	F/S: 1) Songkhl	Coast on the Gulf of la, 2) Sichon, 3) Bar						
10	MA TOD DDODOCED DD	OTECT(C)	1						

#### 10. MAJOR PROPOSED PROJECT(S)

M/P:

There are 10 projects to be implemented as the long-term development plan. In Songkhla, the coastal shipping terminal should be expanded to have one more coastal berth and one more Ro/Ro berth. Sand bypassing should be implemented at 10 channels: namely, Songkhla, Na Thap, Sakom, Thepha, Bang Ra Pha, Teyong Pao, Panare, Bang Maruat, Sai Buri and Narathiwat.

#### F/S:

- 1) Songkhla Port: The project consists of construction of port facilities (coastal shipping Berth, Ro/Ro berth) and shore protection facilities.
- 2) Sichon Channel: the new jetty is planned to prevent the channel from shoaling and protect the village from storms.
- 3) Bang Ra Pha Channel: the project consists of sand bypassing and shore protection facilities.

ASE THA/S 206/01 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

(FY 2002 Domestic Survey)(FY 2003 Domestic Survey)

- 1) Songkhlat Project: PCI submitted I/P to the counterpart personnel.
- 2) Sichon project: shore protection facilities project is under construction by C/P.
- 3) Dredging Operation of Pump dredger: due to the lack of budget, operation has not been conducted.
- 4) Harbor Department reorganized to Marine Department, became as a part of OMPC (Office of the Marine Promotion Commission).

#### (FY 2002 Overseas Survey)

The Marine Department has been restored the dredging in accordance with this Study's recommendation as follows;

- 1) The dredger was moved without lifting the dredge head.
- 2) Reduction of the pipe diameter size:

14" is reduced to 12".

20" is reduced to 16" - 18".

Due to the reduction, the engine revolution was reduced from 1,000 rpm to 800 rpm and the vibration of engine was reduced accordingly, resulting in less fuel consumption.

(FY 2004 Domestic Survey)(FY 2004 Overseas Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

Implemented project: Sichon Channel jetty construction

Funding:

Funding source: own funds Implementing period: 2003 Construction progress: 100%

Contents: construction of additional jetty

Technical cooperation: Dispatch of experts:

Dredging technical guidance: No dredging technical expert was available in Thailand and dredging work was inefficient. With supervision of 3 JICA dredging technical experts, the amount of dredging was increased to more than 200% which doubled dredging efficiency. Japanese dredging techniques were also inspected / introduced in C/P trainings.

Progress: 100%

#### (FY 2005 Overseas Survey)

Expansion of Songkhla port, construction of additional berth and Ro/Ro berth, proposed in the study are not possible due to restriction against construction proclaimed in the law to protect archeological significance. As for sand bypassing at 10 channels, proposals in the study has not being implemented due to navigational safety concerns and risk of creating conflict with local residents.

(FY 2006 Domestic Survey)

No information mentioned specifically

#### (FY 2007 Domestic Survey)

As southern Thailand port plan study, the project study on container terminal in Pakbara (F/S) was implemented in 2005 and the project was selected as a mega project of the prime minister Thaksin. However, it has not been realised since coup de tat occurred or Marine Department is not active against implementation. Furthermore, there is a information that the Marine Department was refused to do the second Songkhla port development study by several local consultants in 2006.

(M/P+F/S)

Compiled Oct.2002

AS	SE THA/S 2	207/01	Revised	Mar.2008				
1.	COUNTRY	Thailand						
2.	NAME OF STUDY	The Study for Urban Redevelopment Plan and Case Study in the Bangkok Metropolitan Area	ne Study for Urban Redevelopment Plan and Case Study in the Bangkok Metropolitan Area					
3.	SECTOR	Social Infrastructure / Urban Planning & Land Development   4. TYPE OF STUDY   M/P+F/	S/S					
5.	COUNTERPART AGEN TIME OF DEVELOPME							
	PRESENT COUNTERPA	PART AGENCY						
6.	OBJECTIVES OF THE STUDY	In Bangkok Metropolitan Area, develop capacity of related agencies on urban redevelopment, and make redevelopment plan in Din Daeng, Makkasan and Huai Khwang Areas. Propose measures for urban de to improve living environment in Bangkok Metropolitan Area.						
7.	CONSULTANT(S)	Nippon Koei Co., Ltd.						
8.	STUDY PERIOD	Dec.2000 ~ Mar.2002 15month(s) ~						
9.	SITE OR AREA	Bangkok Metropolitan Area (however, targeted areas for the redevelopment plan are Din Daeng, Makk Khwang Areas (500ha))	casan and F	Huai				

### 10. MAJOR PROPOSED PROJECT(S)

M/P

- 1. 5.206 thousand NHA housings out of the 6,818 housing are redeveloped in the targeted area. 4,411 New NHA housings are to be built.
- 2. The rest of the 1,612 housings are not redeveloped but used as housings for relocated low income households.
- 3. In order for the people to return to the previous housings, a housing rent system which sets the rent one third of the market price initially and gradually increase will be introduced.
- 4. Private sectors will be introduced in order to bring up the vitality from the districts. The districts for private participations will be created within 71.2 thousand square meters. The district includes: commerce facilities, service apartments, apartments for the middle and upper class income.
- 5. In order to contribute for the people's living improvements, maintain local rejuvenation center which will provide the opportunity for commercial participation by district inhabitants.
- 6. Along with this development, public facilities such as roads within the 100h, infrastructures, open traffic spaces, underpasses from the main streets will be maintained.

F/S

Construction of NHA housing Site-A: 1,210 households Site-B: 200 households Site-C: 1,380 households Total: 2,790 households

ASE THA/S 207/01 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 2002 Domestic Survey)

From the beginning, the project was to be implemented, based on the funding from Thai Government and the private sector. As of Nov. 30, 2002 Environmental Impact Assessment for the project (phase I) was approved. The following step will be to get the Cabinet approval and Prime Minister's agreement. Currently, NHA is engaged in lobbying for the cabinet approval; in sum, lobbying for NESDB and Ministry of Finance. In terms of NESDB, they have had favorable reaction on the project as well as Japan's urban management policy. Ministry of Finance, on the other hand, seems to be difficult to persuade.

As a result of the series of consultation, NHA was required to revise the schedule, cost estimates, and calculating EIRR for the projects because they failed to obtain the site of B1.4 plot. At present, although NHA needs to reexamine EIRR, they lack necessary know-how for evaluating EIRR. Therefore, they have requested JICA Thailand office to dispatch an expert(s), specialized in economic evaluation.

(FY 2002 Overseas Survey)

Since Jan. 2002: Din Daeng Urban Renewal Project was submitted to the NHA's board of directors for the approval of Social Implementation Plan. After the approval, the social activities such as social survey and public participation have been carried out. 2 Project Information Centers were established within the project.

Sep. 2002: 90% of the target residents participated in the process, the response of the residents towards the project was submitted.

Feb. 2002: Din Daeng Urban Renewal Project was submitted to the Ministry of Science and Environments for EIA, and approved in Nov. 2002.

Current situation: The results from the meetings between the concerned governmental agencies such as BMA and NESDB and the financial agreements derived from the meetings will be summarized and submitted to the Cabinet for the Approval of the First Phase Implementation Plan. It is expected that the Cabinet will approve in Jun. 2003.

(FY 2003 Overseas Survey)

The Din Daeng Urban Redevelopment Project is waiting for an approval from local residents, the related ministries and the congress, and as for the fund raising of the project, either of the following plans will be submitted to the congress: a) investment in the project by the government, b) investment in the project by NHA with subsidization by the government, c) investment in the project by general investors with subsidization by the government.

Thai side has completed a review of the master plan for prioritized redevelopment area (100 ha).

Investment promotion activities have been conducted to redevelop existing NHA owned residences. NHA has visited Singapore and Taiwan and is planning to visit Japan for above purpose. A courtesy visit to JICA HQ was requested.

(FY 2004 Overseas Survey)

(FY 2004 Domestic Survey)

Board of directors of NHA has made a consideration for the subsequent studies on June 22, 2003 and has reached to the following conclusions:

1) The project requires an enormous investment. 2) Government is considering promoting private investment rather than public investment. 3) Several buildings in the target site are not suitable for winter. Measure such as amendment of regulation is required. 4) NHA should encourage transfer of residents. 5) Submission of the project within 3 month.

In addition, discussions with the residents are as follows.

1) NHA has established an office in the project area and is continuing a discussion over 2 years. 2) NHA has contacted King Prajadhipok's Institute and is calling for community participation.

(FY 2005 Domestic Survey)

Subsequent Study: The Feasibility Study for Din Daeng Community Urban Renewal Project

Implementing period: 2005 Implementing body: National Housing Authority (NHA)

Objectives: 1) JICA D/S review 2) Implementation of EIA

Relation with the study: Review of contents planned including the residential planning

Funding: Own funds

Condition: NHA is requesting for the Cabinet approval of the implementation of proposed study. In addition, international tender for investor and constructor is planned. Searching for investor is a main issue, and NHA has visited Singapore and Japan in 2004 to search for an investor.

(FY 2005 Overseas Survey)

Subsequent Study: Community participation in Dindaeng urban renewal project

Implementing period: Dec. 2002- Mar. 2003 Implementing body: King Prajadhipok's Institute

Objective: To activate people participation process in Dindaeng community.

Subsequent project: Study of building condition in Dindaeng urban renewal project

Implementing period: Jul. 2003-Sep. 2004 Implementing body: Asian Institute of Technology (AIT)

Condition: To investigate into the strength of building structure in Dindaeng community. To specify phasing of the project according to the building condition.

Subsequent project: Planning and design modification in Dindaeng urban renewal project

Implementing period: Jul. 2004- Sep. 2004 Implementing body: Creative Design Corporation (JV)

Objective: To modify the planning and design of Dindaeng urban renewal project. To reflect current opinions and building condition to upgrade the planning and design of the project, studied by JICA.

(FY 2006 Domestic Survey)

Inserted in organ paper of renewal coordinator.

(FY 2007 Overseas Survey)

Implemented project: The investigation on the deterioration and structural integrity of Flat Din Daeng, Bangkok, Thailand

Implementing period: from January, 2007 to September, 2007 Implementing body: Asian Institute of Technology(AIT)

Contents: National Security Committee of Thailand(NSCT) adopted the decision that "Although houses in Din Daeng community have problem in safety, rehabilitation would not be conducted due to its enormous rehabilitation cost. It is necessary that Bangkok Metropolitan Administration(BMA) would prohibit using high risk facilities and National Housing Authority(NHA) would explain to the residents definite and clearly.", based on report submitted from AIT.(July 9, 2007) Therefore, the board of directors of NHA decided to launch following new rehabilitation project of old facilities with the residents.

Implementing project: A) residents' participation to Din daeng urban renewal project, B) publicity activity plan against residents in Din daeng, C) improvement of plan and design of Din daeng urban renewal project

Implementing period: from October, 2007 to March, 2008

Implementing body: A) Thammasat University, B) Chulalongkorn University, C) staffs of National Housing Authority(NHA)

Progress: The board of directors of NHA approved to utilize government fund for objective of project implementation. The project would be submitted to the Cabinet at September, 2008.

(M/P)

Compiled Sep.2003

**ASE** THA/A 101/02 Revised Mar.2008 COUNTRY Thailand The Development Study on Human Resources Training/Development in the context of Economy in the Rural Areas in the 2. NAME OF STUDY Kingdom of Thailand TYPE OF STUDY M/P 3. SECTOR Agriculture / (Agriculture in) General 4. 5. National Economic and Social Development Board (NESDB) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY 1. (In response to requests from Thai Government) to establish the Master Plan for human resource development (HRD) of men and women in rural Thailand who play important roles in economic rejuvenation in rural areas. 2. To transfer research techniques and concepts and methodologies of planning to the staff member of NESDB, the counterpart. OBJECTIVES OF THE 6. 3. To transfer techniques of Japan's HRD and economic rejuvenation in rural areas to the staff members of NESDB, and STUDY the government agencies in charge of HRD (such as Ministry of Agriculture and Cooperatives, Ministry of Interior) through activities such as workshop. International Development Center of Japan 7. CONSULTANT(S) Feb.2002 Mar.2003 13month(s) 8. STUDY PERIOD Nationwide 9. SITE OR AREA

#### 10. MAJOR PROPOSED PROJECT(S)

The Study has been carried out, aiming at formulating policies, without proposing particular projects. Having said that, it can be said that some examples of model projects would help the counterpart have clearer images in formulation and implementation of policies, and would also provide them with lessons learnt for future policies. In this point, we would like to propose the following projects

- 1. Regional intersectoral (interdepartmental) adjustment: Comprehensive approach to participatory learning
- 2. Establishment of group networking among districts
- 3. Establishment of networking among leaders of each village
- 4. Cooperation among Tambons
- 5. Cooperation between Universities and Districts
- 6. Community business development
- 7. Development of business training centers for activation of rural economy
- 8. Development of educational curriculum in primary education for self-reliance

ASE THA/A 101/02 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 2003 Domestic Survey)

On completion of the Study, the director of Human Resources Development Division, NESDB, reported the results of the Study to the Cabinet (Ministries), announcing that the proposed projects would be implemented. It is assumed that its result will give an impact on establishment of the next 5-year-national-plan.

As mentioned above, it can be said that this Study has contributed to the Counterpart in the form of staff members' capacity building, rather than technical transfer, in which they have been encouraged to put policies into practice.

(FY 2003 Overseas Survey)

The suggestions made in the studies were submitted to the Thailand government as a master plan in relation to the human resources development in rural areas of Thailand. The project is waiting for the approval expected to be given at the beginning of 2004 at present.

(FY 2004 Overseas Survey)

NESDB has rent report of the study to 75 CEO mayors to encourage use of proposal in preparing HRD measures in individual regions/districts.

(FY2007 Overseas & Domestic Survey) No information to be specifically mentioned.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Sep.2003
ASE THA/A 102/02 Revised Mar.2008

	2011							
1.	COUNTRY	Thailand						
2.	NAME OF STUDY	The Study on E	ast Asia/ASEAN Ric	e Reserve System				
3.	SECTOR	Agriculture	/ (Agric	ulture in) General	4.	TYPE OF STUDY M/P		
5.	COUNTERPART AGEN TIME OF DEVELOPME		Office of the Perman	nent Secretary, Ministry o	of Agricultur	re and Cooperatives (MOAC), Thailand		
	PRESENT COUNTERPA							
6.	The objectives of the study are to strengthening the existing ASEAN Food Security Reserve system (AFSR) to serve as key mechanism in order to: (1) ensure security in the supply of rice among East Asian Countries (2) maintain price stability in an efficient manner (3) improve the efficiency in manage the rice stock through a reserve system							
7.	CONSULTANT(S)	Pacific Consulta	ants International					
8.	STUDY PERIOD	Apr.2002 ~	Nov.2002	7month(s)				
	SITE OR AREA	Singapore, Thai	rs ASEAN+3 countri land, Vietnam, China	· · · · · · · · · · · · · · · · · · ·	donesia, Lac	o PDR, Malaysia, Myanmar, Philippines,		
10	MAJOR PROPOSED PR	OJECT(S)						

#### 10. MAJOR PROPOSED PROJECT(S)

1)To study the present status (First Step)

- -review the rice reserve policy and, management system and also rice utilization, production, trade and stock situation
- -review the commitment for rice trade transaction, bilateral and multilateral, especially with AFTA and WTO
- -review trades (qualities, quantities, price) and food aid mechanism
- -review the existing mechanism under the agreement of AFSR with the view to assess its strengths and weakness
- 2)To explore a rice reserve mechanism in East Asia (second step) related for China, Japan and Korea including;
- -identify the total amount of reserve and the reserve for each country,
- -determine the manner in which the stock can be maintained and managed efficiently,
- -elaborate on the trigger and release mechanism and its relation to WTO's Agreement on Agriculture,
- -determine options for pricing mechanism and its relation to food aid programmes
- -identify the stock management,
- -assess benefits and losses of each member countries participating in the scheme,
- -identify the required rice market information system which includes coverage of information, ackuistion, management and dissemination of the information, frequency of the dissemination.

3)Implementation (Third step)

- -institutional arrangement / formulating consensus among organizations concerned,
- -funding / estimated cost of Reserve System,
- -preparation of a draft legal structure.

ASE THA/A 102/02 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 2003 Overseas Survey)

The second AMAF+3 meeting in October 2002, in Vientiane, Lao PDR, it has been agreed on proposed 3-year implementation of the Pilot Scheme for the East Asia / ASEAN Emergency Rice. To implement the pilot project, the meeting has further a greed on 3 major issues:

- 1) Establishing a Project Steering Committee (PSC), comprising of nominators from ASEAN+3 countries as well as representatives from AFSRB, to coordinate and supervise the pilot project
- 2) Thailand with assistance of Japan as the Interim Coordinator, would continue to serve as the coordinating country for implementation of Pilot Scheme.
- 3) Setting up a Management Team to administer the project. The pilot project need collaboration among ASEAN+3 countries. The existing mechanisms of AFSRB should be reformed along the following principles:
  - 1) The scheme should be simple and flexible to accommodate the need of member countries
  - 2) Focus on the emergency and poverty alleviation
  - 3) Market enhancing and WTO consistent
  - 4) Complementing the existing domestic and bilateral arrangements as well as the existing international food aid scheme
  - 5) Transparency and effective use of information
  - 6) Contribution is voluntary but all members are urged to participate, minimize cost of operation and management of the scheme
  - 7) Project should be managed by professional team

Interim Coordinator have organized the first PSC meeting on 25 July 2003, in Bangkok, Thailand. The meeting discussed and approved as follows:

- 1)The TOR and scope of work of the Management Team would cover four areas namely; planning, implementation, reporting and organizing the PSC meeting
- 2)The Management Team would be required to have technical and professional qualifications and work experiences in international public and private organizations dealing with rice production, trade, inventory management and food aid.
- 3)Interim Coordinators with the ASEAN Secretariat will be responsible for the recruitment of General Manager
- 4)The Implementation schedule of Pilot Project will start from January 2004 as a 3-year project.

#### (FY 2003 Overseas Survey)

Interim coordinators (Thailand and Japan) with ASEAN Secretariat now work in the process of recruitment of the General Manager. The General Manager Announcement has been sent to the PSC members and posting on the ASEANWEB. The contract Agreement for the GM will be drafted and forwarded to Interim coordinator to make comment and will discuss and finalize the contract agreement in early December, 2003.

Ministry of Agriculture and Cooperatives, Thailand, has domestic study which was entrusted to Faculty of Economics, Chulalongkorn University, to review and analyze the strengthening mechanism on rice reserve system, stabilize rice price and improve efficiency of rice stock holding in Thailand.

Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, Thailand, has been requested the individual expert on Planning for food security in Thailand and ASEAN countries from JICA to contribute and support during the implementation on the pilot project.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2004 Overseas Survey)

Interim Coordinator (Thai and Japan), in the presence of ASEAN secretariat, has conducted selection of the general manager, and Indian national Dr. Mulyo Sidik was selected as the general manager of the pilot project, concluding the contract period from March 2004 to 28th February 2007.

#### (FY 2005 Domestic Survey)(FY 2005 Overseas Survey)

New progress for the East Asia Emergency rice Reserve Pilot project (EAERR) are as follows:

- 1. The 4th project steering committee (PSC) meeting was held on 21-22 March 2005. The meeting approved guidelines for the release of EAERR stocks.
- 2. The 5th project steering committee (PSC) meeting was held in 5-6 July 2005. The meeting took case study on the implementation of release EAERR stocks under tier 1, 2, and 3.
- 3. Joint meeting of ASEAN food security reserve board (AFSRB) and PSC of EABRR was held on 16th September 2005. The meeting discussed and agreed on the principles of proposal. The principle were considered to be most effective in revising the guideline for tier 1 and 2 stock release.

#### (FY 2006 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2007 Domestic Survey)

No information to be specifically mentioned.

(M/P)

Compiled Sep.2003

AS	SE THA/S 115/			Revised Mar.2008
1.	COUNTRY	Thailand		
2.	NAME OF STUDY	The Study on In	nprovemnt of Road Traffic Environment	
3.	SECTOR	Transportation	/ Urban Transportation	4. TYPE OF STUDY M/P
5.	COUNTERPART AGEN TIME OF DEVELOPME	ENT STUDY	Royal Thai Police, Chiang Mai Municipality	
	PRESENT COUNTERPA			
6.	OBJECTIVES OF THE STUDY	safety in the mo	ad traffic environment improvement plans for alleviated of the clip of Chiang Mai; and echnology transfer to the Thai counterpart personnel versions of the counterpart personnel versio	
7.	CONSULTANT(S)	PADECO Co,. 1	Ltd.	
8.	STUDY PERIOD	Jul.2001 ~	Sep.2002 14month(s)	
9.	SITE OR AREA			
10.	MAJOR PROPOSED PR	OJECT(S)		
1)I 2)N 3)S 4)A 5)F 6)H	ntersection improvements New signal installation: 12 Signal upgrading (Connec Addition of pedestrian lan	s: 20 intersection 2 signals 4 signal 4 signal 4 signal 4 tion to ATC): 10 4 tern: 26 existing 6 k in Old City: To 5 vement: 16 locati	s including 8 new signals and additional pedestrian lars only(Estimated cost: 270*2) existing signals(Estimated cost: 377) g signals(Estimated cost: 470) otal length: 7,270 m(Estimated cost: 1,034) ions(Estimated cost: 23)	nterns at 7 existing signals(Estimated cost: 1,094*1)
No 1) 4 2)7 3) 0	tes: 410:The cost of the works 25: The figure includes of Originak cost estimation	s to be done by D cost of eight (8) n was calculated in	OOH.  new signals under Intersection improvements  Thai Baht. Firstly, the rate between JPY and THB where the submittion of this follow-up study was used.	

ASE THA/S 115/02 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

#### **Description:**

(FY 2003 Domestic Survey)

Among the proposed projects, the intersection improvement of Wat Ched Yod was adopted as the pilot project, which was done from September 2001 to June 2002. Traffic flow at Wat Ched Yod became more consistent and stable. Thus, a reduction in accidents can be expected. Such expectation is supported by the results of the interview survey. Before the project, drivers felt that the intersection was dangerous. After the project, however, more than 95% of drivers feel safer at the intersection and can make a turn more easily.

There are both positive and negative lessons learnt from the project.

- 1)Measures implemented are extremely effective for traffic safety
- 2)Drivers' behavior becomes more disciplined if intersection and signal are well designed
- 3)Construction took much longer time than expected
- 4)Quality of work was not satisfactory

(FY 2004 Overseas Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2006 Domestic Survey)

No information to be specifically mentioned.

(FY 2007 Overseas Survey)

Implemented project: Installation of traffic lights

Implementing period: 2005 - 2007

Objective: Ensuring the safety of pedestrians and road users. Reduction of traffic congestion at traffic intersections.

Funding: Own funds (From Chiang Mai's budget), 6 million THB

Condition: Installation at 6 sites out of 12 has been completed. Traffic lights have been installed at traffic intersections in the city.

Implemented project: Improvement of ACT control traffic lights

Implementing period: 2005 - 2007

Objective: Ensuring the safety of pedestrians and road users. Reduction of traffic congestion at traffic intersections.

Funding: Own funds (From Chiang Mai's budget), 16 million THB

Condition: Installation at 9 sites out of 10 has been completed. Traffic lights have been installed at traffic intersections in the city.

Implemented project: Installation of pedestrian traffic lights (Related implementing project)

Implementing period: 2005 - 2007

Objective: Ensuring the safety of pedestrians and road users. Funding: Own funds (From Chiang Mai's budget), 41 million THB Condition: After the approval by JICA, work will be started in 46 sites.

Implemented project: Improvement of dangerous areas

Implementing period: 2005 - 2007

Objective: Ensuring the safety of pedestrians and road users.

Funding: Own funds (From Chiang Mai's budget), 600 thousand THB

Condition: Project was implemented in 9 areas out of 16. Implementing areas are within the city.

Implemented project: Improvement of traffic intersections (20 proposed sites)

Implementing period: 2004 - 2007

Objective: Ensuring safety of pedestrians and road users. Reduction of traffic congestion at traffic intersections.

Funding: Own funds (From Chiang Mai's budget), about 300 million THB (200 million THB for constructing a subway at No.18 traffic intersection, 2.2 million THB for installing traffic lights, road signs and road markings.

Condition: Improvements have been made at 10 sites out of 20. At No.18 traffic intersection, the proposed plan was changed to the construction of a subway. For other traffic intersections, crossing lamps and installation of traffic lights are added to the proposed plan.

(M/P)

Compiled Sep.2003

A٩	SE THA/S 116/						Revised	Mar.2008
1.	COUNTRY	Thailand						
2.	NAME OF STUDY	Study on the Ac	eid Deposition Control Stra	ategy in the Kingdon	n of Thailand	i		
3.	SECTOR	Administration	/ Environme	ntal Problems	4.	TYPE OF STUDY	M/P	
5.			Pollution Control Depart					
	COUNTERPART AGEN TIME OF DEVELOPME							
	PRESENT COUNTERPA	ART AGENCY	Pollution Control Departs	ment, Ministry of N	atural Resou	rces and Environme	nt	
6.	OBJECTIVES OF THE STUDY		e strategy for mitigation of ology transfer and internal			nt air pollution. In tl	he course of the p	oreparation,
7.	CONSULTANT(S)		ysis and Computing ants International					
8.	STUDY PERIOD	Jan.2002 ~	Feb.2003	13month(s)				
	SITE OR AREA	OFFCT(S)						
10. M/	MAJOR PROPOSED PR	ROJECT(S)						
1) F(2) (1	SO2 Mitigation; Shift to a or enhancement of the shi NO2 Mitigation: Counter 1) Substantial compliance	ift, public relation measures for mo with the latest E ld comply more s Promotion	strictly with latest emission	ness and financial supmillion BHT			ssary.	

ASE THA/S 116/02 M/P

PRESENT STATUS
Delayed
Discontinued

#### **Description:**

#### (FY 2003 Domestic Survey)

The systematic approach for preparation of acid deposition control strategy was applied to Thailand. The approach can be applied to other East Asian countries. After evaluation of the condition, the Study revealed that the current issues for mitigation was atmospheric pollution in the BMR.

The outputs of the Study are as follows.

- -SO2 measures: The shift from high sulfur fuel to natural gas in the industrial sector in the BMR.
- -NO2 measures: Substantial compliance with the regulation on gas emission by mobile emission source, introducing low emission vehicle.
- -Enhancement of environmental management for acid rain and air pollution measures.

Moreover, one of important factors of the Study was technology transfer.

- -Technology transfer activities for inventory, simulation and policy setting.
- -Technology transfer through the flow of 1)monitoring, 2) simulation, 3)policy making.
- -The technology transfer to East Asian countries was carried out by the International seminar.

Furthermore, the inventory was made and simulation using the inventory was implemented through the study. The inventory and the outcome of the simulation are the main field of the technology transfer and are utilised for making strategy, regarded as the quantitative basis for environmental countermeasures.

#### (FY 2003 Overseas Survey)

Future activities after the completion of the study are as follows:

- 1. Monitoring of acid rain and environmental air pollution will be regularly conducted.
- 2. A program aiming at improvement of quality of analysis will be continuously executed through simulation and inventory activities.
- 3. Technology transfer to East Asia nations will be implemented through JICA's Third Country Training Program (acid rain monitoring and assessment).
- 4. PCD will continuously implement the environmental pollution control measures with the objective of improving the natural environments of Thailand.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2004 Overseas Survey)

- 1. Subsequent study: The study will be a part of the third acid rain monitoring and assessment national training, titled "Release inventory and modelling". It is planned from 2005 to 2006.
- 2. Funding: Cost will be borne by the Thai government and Japanese government (cost sharing). Amount will be approximately 1.2 million THB per year.
- Other progress

At present, implementation is proposed to National Environmental Board an Pollution Control Board for the implementation of the output of the project (standard for acid rain management).

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2005 Overseas Survey)

The National Environmental Board has approved to reduce sulphur content in diesel fuel from 0.05% to 0.035% (by weight) in order to reduce SO2 emission, which has been enforced since January. 2004.

Several actions have been taken by the DIW as a result of the development study. Few of the examples are;

- 1) Promotion of environmental report preparation by factories
- 2) Promotion of non-HW final disposal sites construction by private sector.
- 3) Issue penalty notification to illegal dumping
- 4) Issue notification to hazardous waste generating system
- 5) Formulation of higher common standard on waste management.
- 6) Upgrade of industrial waste database system

### Technical Cooperation:

Training (third country):

Acid deposit monitoring and assessment (2003)

Dispatch of expert:

Emission inventory and air pollution modeling (2 personnel)

#### (FY 2006 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2007 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2007 Overseas Survey)

Technical cooperation:

Training program "The Third Country Training aiming to the regulation strategy and reducing measure against acid rain (FY 2007)"

NEB approved the reduction of 0.035% to 0.005% (by weight) of sulphur content in gasoline and diesel fuel and will be enforced from 1st of Jan. 2012.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Sep.2003

ASE THA/S 117/02 Revised Mar.2008

A	SE THA/S 117/0	02								Revised	Mar.2008
1.	COUNTRY	Thailand									
2.	NAME OF STUDY	Study on Devel	opment for Se	curing System of	of Building Sa	fety					
3.	SECTOR	Social Infrastru	cture /	(Social Infrastr	ructure in) Ger	neral	4.	TYPE OF STUI	Y M/P		
5.	COUNTERPART AGEN TIME OF DEVELOPME		Public Works	Department (P	PWD)						
	PRESENT COUNTERP	ART AGENCY	Since 2002 C Country Plan		department w	as changed	l to Γ	Department of Pu	blic Works	and Tow	n and
6.	OBJECTIVES OF THE STUDY	The survey was conducted to realize the following purposes so as to improve the safety of fire prevention of special buildings.  1. Establishing the development strategy for the safety system of fire prevention. 2. Recommendation on the evaluation and improvement of building fire prevention-related laws and regulations. 3. Presenting technical manual for administrative building examiners and designers. 4. Recommendation on human resource development planning. 5. Recommendation on establishing the building material testing system.					aluation				
7.	CONSULTANT(S)	The Building Center of Japan Nippon Koei Co., Ltd.									
8.	STUDY PERIOD	Jun.2001 ~	Mar.2003	3 21n	nonth(s)						
The entire part of Thailand is covered, focusing on the Bangkok Metropolitan Area and some major local cities, where large-scale special buildings are mainly and exclusively located. Special buildings used by unspecified majority of areas follows;  1. Hotels, 2. Offices buildings, 3. Theaters, 4. Hospitals, 5. Department stores/super markets, 6. Schools, 7. Factoric Complex housings, 9. Shops with housing function (complex housings composed of shops on the first floor and hoo on the second and higher) and 10. Multi-purpose buildings.				y covered tories, 8.							

#### 10. MAJOR PROPOSED PROJECT(S)

Suggested contents of the report is as follows. Predominant proposals are the amendment of the Ministerial Regulations and study on the establishment of the related institutions. Therefore, there is no project proposal which based on the financial assistance.

- 1. Development strategy of fire prevention security system
- (1) Basic principle: Because fire disaster in buildings has not been actualized in Thailand, most factors that the buildings lack fire prevention security have roots in low knowledge of related parties about fire security. In this condition, established principle as follows considering social economy condition, politic system, and producing system of buildings.
- 1) approach in government initiative, 2) cooperation and utilization of private expert system, promotion of social shaping that appraise the worth of fire prevention security
- (2) development target and targeted security level: Considering about the present condition that fire control service and urban basis facilities are not sufficient, human life security is the first principle, and property security is the second principle, as targeted security level. Considering about the basic principle, 3 prior development targets were set.
- 1) secure security of newly constructed building, 2) secure security of existing building, 3) improvement of utilization and operation structure of buildings
- (3) introduction measure: In order to realize the development target, necessary measure would be suggested.
- 2. Amendment of law relating to building fire prevention
- (1) introduction of Passive System, (2) improvement of Active System, (3) development of law that reflect the property of buildings, (4) improvement of existing laws, (5) reconstruction of existing inappropriate buildings
- 3. Technical manual for fire prevention plan

Summarized about basic concept of fire prevention, points of planning fire prevention technique, and points of fire prevention plan in each use. As suggested, it would be utilized for cultivation seminars of examination officer, building architect, and technical expert.

ASE THA/S 117/02 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 2003 Domestic and Overseas Survey)

Prioritized areas of technical assistance include advice and guidance on amendment of the Ministerial regulations, as well as to establish the testing, evaluation and appraisal system for building materials.

It is expected that the involvement of the expert would enable procedure of law amendment to be enforced promptly, and that Ministerial regulations concerning the testing, evaluation and appraisal system will be integrated into the building fire safety standard.

Following effectiveness of the technical cooperation were appeared during the this development survey project.

- 1) Amendments of Ministerial Regulation on Fire Safety
- (1) It reformed the regulation on the fire rates from only 3 hours rate. (2) Fire test method of the fire door was conformed to ISO. (3) Established the technical committee on technical approval system.
- 2) Enhancement of Assessment / Inspection System
- (1) It commenced the examination on the interim inspection system (2) It commenced the discussion on the periodical inspection system
- 3) Establishment of Testing & Evaluation system
- (1) It clarified the establishment of new fire test laboratory in cooperation between DPT and Chulalongkorn University.
- 4) Furthermore, after finished the development survey, the Sub-committee on the building fire safety was established under the Building Control Committee Board (BCCB), and the sub-committee planned to hold once in a two weeks.

Technical support:

One long-term expert will be dispatched from March 2004 in order to follow up the full-scale study.

(FY 2004 Domestic and Overseas Survey)

1. Law revision is carried out in earnest. Department of Public, Works, Towns & Country Planning has agreed on the revision of MR 48 related to basic structure fire resistance period rating. MR 48 states that fire resistance period rating must not be below 3 hours. However, as an output of the study, Japanese expert has suggested in revising now 3 hours fire resistant period rating to 1 to 3 hours depending on scale, height, and use. In addition, ISO834 was added to the test method which only includes ASTME119. The test method was submitted to Building Control Committee Board and Cabinet. They have already received the MR draft. The DPT is planning to review other basic structure fire resistance period rating.

Building Control Committee Board has revised MR for a fire resistance period rating and established subcommittee to prepare the Thailand Building Standard Act. Building Standard Act consists of construction material, structure or fire security facilities, interior standards, fire-prevention shutter, evaluation and approval of building structure, fire resistant materials, and technical certification system for construction methods. Building Management Department under the jurisdiction of DPT has prepared Building Standard Act and submitted DS final report for a MR revision to the subcommittee.

2. Fire Safety Research Center: FSRC

FSRC will be constructed by repairing the building used for fire experiment demonstration during the implementation of this study. 2003/Mar: open 2004/Mar: facilities development: an establishment of vertical and horizontal fireproof building by the Yen Grant 2005/ Dec: three kinds of experimental machines are being provided by the Yen Grant. They will be introduced in the beginning of 2006.

3. Central administrative reform has planned to establish the Ministry of Construction and the Construction Regulation Department. Inclusion of functions to evaluate building techniques is considered. This, taking based on the experience and knowledge as an institution to evaluate the building techniques, corresponds to the proposal for the requirement to prepare technical evaluation scheme.

Technical cooperation:

Dispatch of experts:

Dispatch of long term experts: as a result of the below, the Ministerial Regulations of Building Control will be updated.

1) Revision of MR, EIT standard revision and new ASA standard. 2) Preparation of rules for fire examination procedures and report for the result of fire examination. 3) Preparation of rules for technical evaluation procedures and report. 4) Rules for building permission procedures by a architect focusing on fire security measures of the building. 5) Guidelines for financial assistance and incentive system 6) Training manual for an architect. 7) Technical evaluation report (for architect, engineer, constructor, and others)

(FY 2005 Domestic Survey)

Training for the inspectors for fire prevention security inspection has been conducted by the Department of Public Works and the Town and Country Planning (DPT) in FY 2004 and FY 2005. 90 persons have participated in the training course in FY 2005, which have seen improvement in work place, and continuous revision of the contents of the inspection.

Technical cooperation:

Training:

Counterpart training: 1 personnel from DPT to limit construction fire prevention zones and interior materials, to inspect the facilities related to construction fire prevention security, and to hear construction administration and construction technology appraisal.

Dispatch of experts:

Long-term experts: 1 personnel in construction regulation March 2003-March 2006

Others

JICA group training: Construction administration training to introduce contents of the development study and proposed tasks.

(FY 2007 Domestic Survey)

Implemented project: "Introduction of Periodic Report System"

Implementing period : from 2005 Implementing body : Ministry of Interior

Objective: Building Control Act was revised at the year of 2000(Article 32-2 was added), and legal basis of periodic report of utilizing building was regulated. The Act mentioned that the detail would be regulated by ordinance of Ministry of Interior, but the ordinance of Ministry of Interior had not been regulated, and therefore periodic report system had not been operated. Considering about suggestion of the Development Survey, 2 ordinance of Ministry of Interior about periodic report system was issued at 2005. Target building of periodic report, qualification of technical expert who inspect for periodic report, and contents of inspection was regulated. The first report was to be done until December, 2007, however it has not been reported due to the opposition of building owners.

Dispatch of experts: Dispatch of long-term experts from March, 2004 to March, 2007. They made the secretariat idea of general rule of technical standard and fire prevention standard. Afterward, explanatory meeting against learned person and relevant agencies was conducted with presence of the experts at July, 2007, but works for drastic revision has been getting stacked up.

### STUDY SUMMARY SHEET (M/P)

Compiled Dec.2007 ASE THA/S 101/06 Revised Mar.2008

1.	COUNTRY	Thailand
2.	NAME OF STUDY	The Study on Implementation of the BMA Subcenters Program(Case of Lat Krabang)
3.	SECTOR	Social Infrastructure / Urban Planning & Land Development 4. TYPE OF STUDY M/P
5.	COUNTERPART AGENORIME OF DEVELOPME	
	PRESENT COUNTERPA	
6.	OBJECTIVES OF THE STUDY	1) To formulate a strategic development plan for the Lat Krabang area (hereinafter referred as to "the Subcenter Area") to develop a well-ordered and sound new urban area, 2) To formulate a basic plan for the pilot project area (hereinafter referred as to "the Pilot Area") which will be selected in the Subcenter Area for the pre-feasibility study of the land readjustment method, and 3) To implement capacity building for the counterparts and Thai officials who take charge of the city planning, transportation planning, land readjustment, and environment and social assessment.
7.	CONSULTANT(S)	Nippon Koei Co., Ltd.
8.	STUDY PERIOD	Aug.2004 ~ Jul.2006 23month(s) ~
	SITE OR AREA	Wide metropolitan area of Bangkok, Lat Krabang Sub Center area(about 2,000ha)
10.	MAJOR PROPOSED PR	OJECT(S)

<Contents of the project>

(1) overall condition of targeted area of the Survey, (2) basic development policy of Lat Krabang Sub Center area, (3) development plan, (4) development of facilities and infrastructure, (5) strategic development plan, (6) economic analysis, (7) pre-feasibility survey against pilot project area, (8) consideration to environmental society and public consultation, (9) environmental evaluation, etc.

<Suggestions and action plan>

To shift the metropolitan area from overconcentration type to multipolar decentration type had been the urban planning vision of Bangkok for long period. Public project and private development, and overall management of them are necessary to construct the Sub Center in reality.

- (1) Important development that should be conducted in five years
- 1) accomplishment of primary development of Area-C 2) accomplishment of urban development including buildings in pilot project area 3) accomplishment of constructing main highways (NS-1, N-2, and EW-1) 4) partly accomplish the day-tourism in culture town
- (2) Urgent activities that should be conducted for working out important development
- 1) establishment of committee 2) establishment of public development corporation 3) deepening the survey and design for the development of Area-C 4) conduction of the pilot project 5) development of culture town 6) maintenance of road network 7) other transportation facilities

**ASE** THA/S 101/06 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued
Description :	

(FY2007 Domestic Survey)

No information to be specifically mentioned.

(FY2007 Overseas Survey)

Subsequent Study: Additional Survey about planning and designing Lat Krabang Subsecor

Implementing period: from September, 2006 to January, 2007

Implementing body: Department of City Planning

Objective: 1) review the physical data of the targeted area of Survey, and make up GIS 2) confirm the land ownership about Area A and Area C, and structure land information system 3) investigate the land dimension of Area A 4) investigate the project expense of redevelopment of Area A and Area C, and investigate the feasibility 5) structure 3D modeling of Area A and Area C 6) promote the understandings about the direction of development through holding public hearing against land owners about land redevelopment project 7) conduct technology transfer and conduct training in aim of effective operation of GIS database

	(M/P)	Compiled	Sep.1995
M/S 101/04		Revised	Mar 2008

AS	SE VNM/S 101/			Revised Mar.200
1.	COUNTRY	Viet Nam		
2.	NAME OF STUDY	Transport Deve	lopment in the Northern Part of Viet Nam	
3.	SECTOR	Transportation	/ (Transportation in) General	4. TYPE OF STUDY M/P
5.	COUNTERPART AGEN TIME OF DEVELOPME		Transport Economic Science Institute (TESI) Ministry of Transport	
	PRESENT COUNTERPA	ART AGENCY	Transport Development and Strategy Institute(IDSI)	
6.	OBJECTIVES OF THE STUDY	Drawing up a Myear of 2010.	Master Plan of the transportation system except airport i	n the northern part of the country until the target
7.	CONSULTANT(S)	Pacific Consulta	ants International	
8.	STUDY PERIOD	Jun.1993 ~ ~ The northern pa	May.1994 11month(s)	
10. 1)R 2)R tran 3)P	tailway: 9 items includin asportation for the border ort: Renovation and dev	EOJECT(S) improvement of g improvement of area. relopment of Haip	the national highways of route 1, 2, 18, 70 and 379, brish the passenger transportation system of Hanoi - Haiph	nong line, rolling stocks factory at San Ram and the

ASE VNM/S 101/94 M/P

PRESENT STATUS
Delayed
Discontinued

#### Description:

As this is the first integrated development project for the northern part of the country, it is considered to make improvement of transportation.

1.Road

Implementations of the works are being actively progressed by means of the financing from the government of Japan, the World Bank and the Asian Development Bank. Subsequent Study: JICA-F/S(1996), D/D WB-F/S(1996)

(FY 1997 Domestic Survey)(FY 1998 Domestic Survey)(FY 1999 Domestic Survey)

- Rehabilitation of National road 1 (Hanoi~Vinh) --- World Bank
- Rehabilitation of bridges with the length of more than 20m in the section Hanoi~Vinh --- OECF

Finance

(1) National Highway No.1 Bridge Rehabilitation Project

(I) 28 Jan. 1994 L/A 3,870 mil. yen (II) 18 April 1995 L/A 2,859 mil. yen (III) 29 March 1996 L/A 8,808 mil. yen (II-2) 29 March 1997 L/A 2,239 mil. yen (II-3) 30 March 1999 L/A 13,170 mil. yen (II-3)

Construction:

(FY 1999 Overseas Survey)

OECF 1995-2001 under construction(Hanoi-Vinh / Nhatrang-Cantho / Hanoi-China border / Dongha-Nhatrang)

WB 1996-1999 almost completed(HCM-Cantho / Vinh-Dongha / Ouangngai)

ADB 1997-2000 under construction

(2)Expansion of National Highway No. 5 (two-lane ---> four-lane) Taiwan / OECF

(I) 28 Jan. 1994 L/A 8,782 mil. yen (II) 18 April 1995 L/A 5,470 mil. yen (III) 29 March 1996 L/A 6,709 mil. yen

(FY 1999 Domestic Survey)

Jan. - March 1999 OECF SAPS "National Highway No.5 Improvement Project".

Construction:

(FY 1999 Overseas Survey) OECF 1995-2000 almost completed

(3)National Highway No10 Road & Bridge Rehabilitation Project : 30 March 1998 L/A 17,742 mil. yen (I)

Construction:

(FY 1999 Overseas Survey) OECF 1998-2003 under construction

(4)National Highway No18 Road & Bridge Rehabilitation Project: 30 March 1998 L/A 11,863 mil. yen (I)

Construction:

OECF 1998-2003 under construction(Noibai-Chi Linh / Bieunghi-Cuaong)

Korea loan 1996-1999 completed(Chi Linh-Bieunghi)

#### 2.Railway

Feasibility Study for the improvement of the passenger transportation system of Hanoi - Haiphong line is now being carried out by the assistance of U.K. Other projects are progressed by the aid of JICA and OECF.

Subsequent Study: JICA-F/S(1996) Germany-F/S

(FY 1998 Domestic Survey) Improvement projects of the Transportation for the border area are underway with their own fund.

Finance:

(FY 1997 Domestic Survey)(FY 1998 Domestic Survey))

Ha Noi - Ho Chi Minh City Railway Bridge Rehabilitation Project

(I)28 Jan. 1994 L/A 4,042 mil. yen (II) 18 April 1995 L/A 54 mil. yen (III) 29 March 1996 L/A 7,341 mil. yen

Project contents: Rehabilitation of nine prioritized bridges on North-South railway (Ha Noi - Ho Chi Minh City).

(FY 1999 Domestic Survey) Jan. - Mar., May - Aug. 1999 OECF SAPI "Ha Noi - Ho Chi Minh City Railway Bridge Rehabilitation Project".

Construction:

(FY 1999 Overseas Survey)

OECF 1995-2001 under construction Hanoi-HCM

1999-2001 under construction Hanoi-Vinh

3.Port

Subsequent Study: JICA-F/S(1994)

Finance:

Jan.1994 L/A 3,945 mil. Yen (Haiphong Port Rehabilitation Project I)

29 Mar. 1996 L/A 10,273 mil. yen (Expansion of Cailan Port)

(FY 2000 Domestic Survey)

29 Mar. 2000 L/A 13,287 mil. yen (Haiphong Port Rehabilitation Projectt II)

Construction:

(FY 1998 Domestic Survey)(FY 1999 Overseas Study)

Haihpong Port: 1995-2000 On-going Cailan Port : 1996-2001 On-going

\*Refer to "Cai Lan Port Construction Project (VNM/S 301/94)" for further information on Cai Lan port.

Related project: Bai Gon Port project by ADB loan(1995-2000)

4.Inland Waterway

Subsequent Study: ADB-F/S(1997)

(FY 1998 Domestic Survey) No action has been taken for the implementation.

(FY 1999 Overseas Survey) World Bank funds during 1998-2001

(M/P+F/S)

Compiled Sep.1995

AS	SE VNM/S 2		:2008
1.	COUNTRY	Viet Nam	-
2.	NAME OF STUDY	Urban Drainage and Wastewater Disposal System in Hanoi City	
3.	SECTOR	Social Infrastructure / River & Erosion Control 4. TYPE OF STUDY M/P+F/S	•
5.	COUNTERPART AGEN TIME OF DEVELOPME		
	PRESENT COUNTERPA	ART AGENCY	
6.	OBJECTIVES OF THE STUDY	1)Formulation of a Master Plan on drainage and wastewater disposal; and 2)Feasibility Studies on urgent projects of improvement of inferior drainage and prioritized projects.	
7.	CONSULTANT(S)	Nippon Koei Co., Ltd. CTI Engineering Co., Ltd.	
8.	STUDY PERIOD	Oct.1993 ~ Feb.1995 16month(s)	
	SITE OR AREA		
<n 1)I 2)F</n 	Orainage Plan; Drainage I Drainage P Rehabilitation of Drainag	orojects were proposed in order to protect flood disaster and improve the environment of urban life: Plan of Toric River Basin (77.5sq.km) Plan of Nuwe River Basin (57.9sq.km)	
		age for Toric River Basin, which is selected to five top priority, is devided by two(2) stages as shown below:  1st Stage 2nd Stage	
Re Ri	pacity of Pump Station gulating Reservoir ver Renovation warage	45cu.m/s 45cu.m/s 3,870 thousand cu.m 1,320 thousand cu.m 33km - 45km 230km	

ASE VNM/S 201/94 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 1996 Domestic Survey)

Subsequent Studies:

Implementing Period:Feb.1997~Jul.2001

Fund:OECF loan

Amount to be Procured: US\$179,000,000

(Local Currency \$61,800,000/ Foreign Currency \$117,900,000)

#### Difference with JICA's Porposal:

Construction of two Pilot Waste Water Treatment Plants at Kim Lien and Truc Bach.

1. Drainage Project for Environment Improvement in Hanoi City-1st Stage

Finance

18 Apr. 1995 L/A 6,406 mil.yen

\*Component of project

- 1.Reservoir and Pumping Station.
- 2.Improvement of major rivers and rehabilitation of drainage channels.
- 3. Rehabilitation of sewerage.
- 4. Procurement of sewer cleaning machinery and undertaking of cleaning works.
- 5. Construction of Pilot Waste Water Treatment Plants.
- 6.Improvement of environment of lakes and ponds.

#### Construction:

Jul.1998~Feb.2001 (scheduled)

(FY 1997 Domestic Survey)

Shortening of construction period is required.

(FY 1999 Overseas Survey)

14 packages were planned and P-3, P-5, P-6, P-7c, P-14 are already completed.

2.Drainage Project for Environment Improvement in Hanoi City-1st Stage

(FY 1998 Domestic Survey)

Finance:

30 March 1998 L/A 12,165 mil.yen

\*Component of project

- 1.Rehabilitation of drainage facilities.
- 2. Construction of regulating reservoir/ pump station.

#### Future prospects:

(FY 1998 Domestic Survey)

Government of Viet Nam is expecting the Japanese government to implement the F/S on the sewage development project which was proposed by M/P.

(M/P+F/S)

Compiled Sep.1995

AS	SE VNM/A	<b>202/94</b> Revised Mar.200
1.	COUNTRY	Viet Nam
2.	NAME OF STUDY	Improvement Project of Drainage System in South Bac Duong Agricultural Area
3.	SECTOR	Agriculture / Irrigation, Drainage & Reclamation 4. TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERPA	ART AGENCY
6.	OBJECTIVES OF THE STUDY	Formulation of the drainage plan (M/P) for South Bac Duong area neighboring to the City of Hanoi with an area of appro-40,000ha and a F/S for priority area.
7.	CONSULTANT(S)	Sanyu Consultants Inc. Taiyo Consultants Co., Ltd.
8.	STUDY PERIOD	Mar.1994 ~ Mar.1995 12month(s)
		South Bac Duong area in Nothern Viet Nam
9.	SITE OR AREA	
1)I 2)I 3)I 4)I	mprovement of irrigation Establishment of sustainal mprovement of social-en	Repair of the pump stations and canals for drainage. system: Securement of water quantity and repair of waterways. ble agriculture: Introduction of intensive and diversified agricultural system. vironmental circumstances: Mitigation of poverty and disease.
A	e activities contain the fo Option rea for 6,420	I Option II ha 8,540 ha
Př	umping facility 16.0cu.	m/s 26.0cu.m/s

ASE VNM/A 202/94 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

Subsequent Study:

(FY 1997 Domestic Survey)

Oct.1997~Feb.1998 B/D "Drainage System Improvement in Tanchi"

Different with JICA's proposal:

(FY 1997 Overseas Survey)

Area was narrowed.

Finance:

(FY 1997 Overseas Survey)

Government budget

Grant aid assistance with amount of approx. 17mil.US\$ has been requested in 1996.

(FY 1998 Domestic Survey)(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

9 Jun. 1998 E/N 252 mil.yen "Drainage System Improvement Project in Tanchi (1/3)", provision of meterials and equipment.

30 Sep. 1998 E/N 1,491 mil. yen "Drainage System Improvement Project in Tanchi (2/3)", construction of pumping station.

\* The expense for the construction of drainage channel is born by Vietnam side.

E/N for Phase 3/3 is to be signed in FY 2000.

#### Construction:

(FY 1998 Domestic Survey)(FY 1999 Overseas Survey)

2/3 1999~Mar. 2000 (scheduled to be completed).

#### Remaining Project:

(FY 1998 Domestic Survey)

As for remained area, it is planned to rehabilitate a drainage system by 2005. Japanese grant is expected for the project, especially for the proposed project option I.

**(F/S)** 

Compiled Sep.1995

E VNM/S 3	801/94				Revised	Mai.2006
	Viet Nam					
NAME OF STUDY	Cai Lan Port Co	nstruction Project				
SECTOR	Transportation	/ Port	4.	TYPE OF STUDY F/S		
		Transport Engineering Design Incorporated (TEDI)				
PRESENT COUNTERPA	ART AGENCY					
	Feasibility Study	for Cai Lan Port (target year of 2000).				
OBJECTIVES OF THE STUDY						
CONSULTANT(S)						
STUDY PERIOD	Dec.1993 ~	Dec.1994 12month(s)				
	Cai Lan port					
SITE OR AREA						
ea Route: depth -11m, Wharf: 7 wharfs, exte	width of the both ension 1,461m, d					
	PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD  MAJOR PROPOSED PR ea Route: depth -11m, Vharf: 7 wharfs, exte	Cai Lan Port Co  SECTOR  Transportation  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE STUDY  The Overseas Co Nippon Koei Co  STUDY PERIOD  Dec. 1993  Cai Lan port  SITE OR AREA  MAJOR PROPOSED PROJECT(S) ea Route: depth -11m, width of the bott	NAME OF STUDY  Cai Lan Port Construction Project  Transportation / Port  Transport Engineering Design Incorporated (TEDI)  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Feasibility Study for Cai Lan Port (target year of 2000).  OBJECTIVES OF THE STUDY  The Overseas Coastal Area Development Institute Nippon Koei Co., Ltd.  STUDY PERIOD  Dec. 1993 ~ Dec. 1994 12month(s)  Cai Lan port  STIE OR AREA  MAJOR PROPOSED PROJECT(S)  ea Route: depth -11m, width of the bottom 130m Wharf: 7 wharfs, extension 1,461m, depth of water -9 to -13m	NAME OF STUDY    Cai Lan Port Construction Project	NAME OF STUDY  SECTOR  Transportation  /Port  4. TYPE OF STUDY  F/S  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Feasibility Study for Cai Lan Port (target year of 2000).  OBJECTIVES OF THE STUDY  The Overseas Coastal Area Development Institute Nippon Koei Co., Ltd.  STUDY PERIOD  Dec. 1993 ~ Dec.1994 12month(s)  Cai Lan port  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  ea Route: depth -11m, width of the bottom 130m  Wharf : 7 wharfs, extension 1,461m, depth of water -9 to -13m	NAME OF STUDY  SECTOR  Transportation  / Port  Transport Engineering Design Incorporated (TEDI)  PRESENT COUNTERPART AGENCY  Feasibility Study for Cai Lan Port (target year of 2000).  The Overseas Coastal Area Development Institute Nippon Koei Co., Ltd.  STUDY PERIOD  Dec. 1993 ~ Dec. 1994 12month(s)  Cai Lan port  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  ea Route : depth -11m, width of the bottom 130m Wharf : 7 wharfs, extension 1,461m, depth of water -9 to -13m

カイラン港拡張計画調査

ASE VNM/S 301/94 F/S

	Completed or In Progress	Promoting
DDDGENE GEARNIG	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Subsequent Study:

(FY 1997 Overseas Survey)(FY 1997 Overseas Survey)

Nov1997~Jul.1998 Review, D/D

Consulting Firm / Nippon koei, Nedeco, Paweco

\*Difference with JICA's proposal: The numbers of berths were changed from 7 to 4.

Finance

Mar.1996 L/A (Cai Lan Port Expansion Project, 10,273 mil.Yen).

\*Content

Construction of 4 berth, access channel, equipment

Construction:

(FY 1997 Overseas Survey)

1998~2001

(M/P+F/S)

Compiled Jul.1996

AS	SE VNM/S 2	202/95				Revised	Mar.2008
1.	COUNTRY	Viet Nam					
2.	NAME OF STUDY	Upgrading the I in the Year of 2	Hanoi-Ho Chi Minh Railway Line to Spection 2000	ed Up the Passeng	er Express Trains to	Average Speed of	of 70km/h
3.	SECTOR	Transportation	/ Railway	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME PRESENT COUNTERP	ENT STUDY	Viet Nam Railway, Ministry of Transpo	rt			
6.	OBJECTIVES OF THE STUDY		and modernize the Hanoi-Ho Chi Minh R	ailway Line by th	e year of 2010.		
7.	CONSULTANT(S)	o apair rain way					
8.	STUDY PERIOD	Feb.1994 ~	Jan.1996 23month(s) en Hanoi-Ho Chi Minh				
	SITE OR AREA						
	MAJOR PROPOSED PR	OJECT(S)					
To saff sigg -To -To	etiness and reliability, rel- nals, a communication sy o determine F/S projects b /S> F/S on the rehabilitation a asures on high priority se Improvement of cargo ser Improvement of rail track Installation of optic cable	nabilitation of all stem and a vehic based on M/P (The and improvement ctions of Hanoi- vice and passeng as, bridges, signal and telephone eand improvement -Cai Lan Port Se system for touristong section	s and a communication system schanges of the Lao Cai-Cai Lan Line ction ts in Ha Long Port	vn and the improv  Ho Chi Minh Ling  rement of the finar	ement of a disaster per and 2)the Lao Cai-	orevention system -Cai Lan Line is d	, railroads,

ASE VNM/S 202/95 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 1998 Domestic Survey)

The social infrastructure in Vietnam is of urgent necessity for the development of its economy, Transportation sector is the important field of Japan's assistance and the study is expected for effective utilization is the future.

Subsequent Study:

(FY 1999 Overseas Survey)

1996 F/S Netherlands Government(Development of signaling and telecommunication of Hue-Da nang section)

Finance:

(FY 1999 Overseas Survey)

Kfw 8.5 mil. yen(Improvement of the Hanoi-Ho Chi Minh Line) Kfw 179mil. yen(Improvement of the Hanoi-Ho Chi Minh Line)

Construction:

(FY 1999 Overseas Survey)(FY 2001 Overseas Survey)

Construction of 8 bridges between the Hanoi-Ho Chi Minh Line: Completed in 2000

Improvement of signal & telecommunication between Hanoi-Vinh / Tunnel improvement: designs are now planned.

(FY 2001 Domestic Survey) Period: Mar. 1998 - Oct. 2000

Contractor: Package I - Rinkai Kensetsu, Matsuo Kyoryo, JV of DIEZOI (Vietnamese company),

Package II - Mitsui, JV of TangLong

As Phaze II of the rehabilitaiton of Hanoi-Ho Chi Minh Line, rehabilitaion works of 10 bridges were started in Jun. 2001 with the 20-months scheduled construction period.

(FY 2001 Overseas Survey)

Phaze II of the rehabilitation fo Hanoi-Ho Chi Minh Line.

Package III (5 bridges): Jun.2001~Jan.2003. Rinkai Kensetsu, Matsuo Kyoryo, JV of CIENCO1

(Total construction cost: 1,147 million yen)

Package IV (5 bridges): Jun. 10, 2000 ~ Jun. 2003: Mitsui, JV of TangLong (Total construction cost: 1,350 million yen)

Package III: 3.15% completed. In progress in good circumstances.

Package IV: being prepared

Remaining works: A request has been submitted to JBIC and the related organization of the Vietnamese government to implement Phaze II construction with the remaining fund after 10 bridges are completed.

F/S was completed for rehabilitation of 34 bridges.

(FY 2005 Domestic Survey)

Hanoi-Ho Chi Minh City Railway bridge safety improvement project (phase II) has been fully completed in March 22005, including additional work.

Subsequent project: Hanoi-Ho Chi Minh City Railway bridge safety improvement project (phase III)

Funding:

Funding party: Yen loan L/A March 31st 2004

Description: STEP loan (L/A No. VNX1-8)

Implementing period:

Construction starting: September 29th 2005 Implementing party: JTC, PCI, JARTS, JV

Objective: Included training of rehabilitation and protecting of 44 bridges.

Relation with the study: A part of component proposed in the study

Progress: Design is in progress

**(F/S)** 

Compiled Jul.1996

AS	SE VNM/S 3	302/95	Revised	Mar.2008
	COUNTRY	Viet Nam		
2.	NAME OF STUDY	Highway No.18 Improvement		
	SECTOR	Transportation / Road 4. TYPE OF STUDY F/S		
5.		No.18 Projects Management Unit(PMU18), Ministry of Transport		
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
		F/S on Highway No.18 Improvement Project.	-	
6.	OBJECTIVES OF THE STUDY			
7.	CONSULTANT(S)	Pacific Consultants International Oriental Consultants Co., LTD.		
8.	STUDY PERIOD	Jul.1995 ~ Mar.1996 8month(s)		
		Route 18 Noi Bai Bac Luan (except for Chi Linh-Bieu Nghi section)		
		Troute to the But But Butth (encept for our Bill Bleu tight section)		
9.	SITE OR AREA			
10.	MAJOR PROPOSED PR	OJECT(S)		
Nat	ional road construction: ional road improvement ncipal works: soil constru			

国道18号改修計画

ASE VNM/S 302/95 F/S

PRESENT STATUS

Completed
Partially Completed
Implementing
Processing

Delayed or Suspended
Discontinued or Cancelled

#### Description:

Subsequent Study:

(FY 1997 Overseas Survey)

May.1998~Mar.1999 D/D, B/D

#### Finance:

(FY 1997 Overseas Survey) (FY 1998 Domestic Survey)

March 30, 1997 L/A 11,863mil.Yen

(National Highway No.18 Improvement Project (I))

(not including Baichay Bridge)

\*Component

Road improvement project (total length is approx. 320km) including the bridge of National Route No.18.

Noibai~Cua Ong section (except for Chi Ling~Bien Nghi)

(FY 2001 Domestic Survey)

March 29,2000 L/A 11,586mil.Yen

(National Highway No.18 Improvement Project (II))

\*Component

Road improvement projectincluding the bridge of National Route No.18.

Noibai~Chi Ling section (70km), Bien Nghi ~Cua Ong (65km)

#### Construction:

(FY 1997 Overseas Survey) (FY 1998 Domestic Survey)

Apr.1988~Feb.2002 (planned)

(FY 1999 Overseas Survey) The project is dividend into 5 packages

1.Package 1 (Noi Bai- Bac Ninh)

Feb.2000~24 months scheduled

\*Contents: road construction(34.13km), bridge construction(21 bridges, L.:3.500m), construction of drainage system, construction of intersections

2.Package 2(Bac Ninh-Chi Linh)

The bidding is already finished.

Feb.2000-28 months scheduled

\*Contents: road improvement(width: 7m to 15m, Total L.:29.6km), bridge construction(7 bridges, L.:276m)

3.Package 3 (Pha Lai Bridge)

The bidding is already finished.

Jan.2000-28 months scheduled

\*Contents: bridge construction(1,239m), construction of approach road(1,011m), construction of drainage system

4.Package 4 (Bieu Nghi-Bai Chay)

Oct.1999-Dec.2000 on-going

\*Contents: road improvement(width: 7m to 12m, Total L.:26km), bridge construction(9 bridges, L.:245m), construction of drainage system

5.Package 5 (Hon Gai-Cua Ong)

May 2000 -24 months scheduled

\*Contents: construction of 4 lanes(W.:31m, L.:19km) and 2 lanes(W.:13m, L.:13m), bridge construction, construction of drainage system (FY 2001 Overseas Survey)

- 1. Package1 (Noi Bai-Bac Ninh): 6.7% implemented. Push and catch up with the schedule.
- 2. Package2 (Bac Ninh-Chi Linh): 37.14% implemented. Keep the progress.
- 3. Package3 (Pha Lai Bridge): 56% implemented. Being completed 4-6 months earlier than schedure is predicted.
- 4. Package4 (Bueu Nghi-Bai Chai): 100% implemented. Addition of package is being changed to Bai-Chai Bridge project.
- 5. Package5 (Hon Gai-Cua Ong): 3.81% implemented. Speeding up to catch up with the schedule.

#### Remaining Project:

(FY 1997 Overseas Survey)

Road improvement of Cua Ong~Bac Luan section is to be implemented in Phase II from 2010.

(M/P)

Compiled Jun.1997

AS	SE VNM/S 111							Revised	Mar.2008
1.	COUNTRY	Viet Nam							
2.	NAME OF STUDY	Coastal Shipping Rehabilitation and Development Project							
3.	SECTOR	Transportation	/ Marine	Γransportation & Ships	4.	TYPE OF STUDY	M/P		
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		VINAMARINE (Vieti	nam National Maritime Burd	eau)				
	PRESENT COUNTERP								
6.	OBJECTIVES OF THE STUDY	To formulate med	lium/long-term M/P o	n coastal shipping rehabilita	ation and	d development.			
7.	CONSULTANT(S)	The Maritime International Cooperation Center Overseas Ship-building Cooperation Centre ALMEC Corporation							
8.	STUDY PERIOD	Dec.1995 ~	Mar.1997	15month(s)					
	SITE OR AREA		er Transport Area of V	Vietnam					
10	MAJOR PROPOSED PR	OJECT(S)							

M/P Million USD Package A / Package B/ Package C

- 1) Coastal Shipping Fleet Development and Modernization (purchace, improvement of shippyard, quality control) 1,018.2 / 234.6 / 1.3
- 2) Rehabilitation of Ports and Navigation Routes 327.9 / 171.0 / -
- 3) Modernization of Shipping Management N/A
- 4) Secondary Transport in connection with Coastal Shipping (rivers, road infrastructure) N/A.
- 5) Human Resource Development of Maritime (VIMAR4 and MTTS, tanker training) 25.4 / 4.5 / N/A.
- 6) Maritime Safety and Protetion of Marine Environment 384.1 / 65.8 / 36.8

ASE VNM/S 111/96 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

#### **Description:**

#### 1. Marine safety improvement project

(FY 1997 Domestic Survey)

Next step should be proceeded towards Yen Credit of OECF particularly for marine safety related project based upon the Coastal Shipping Rehabilitation and Development M/P study and Short-Term Priority Packages A, B, C.

Regarding to the maritime communication system, the procedure for OECF loan to install GMDSS is on process.

Finance:

(FY 1998 Domestic Survey)(FY 1999 Overseas Survey)

Yen Loan to install GMDSS was decided to be procured in FY 2000.

Requested amount: 1,860 mil. JPY

(FY 2001 Overseas Survey)

L/A has not been signed. The following project was implemented.

Amendment and Improvement Project for Vietnam's Lighthouse System.

Financial Source: Spain ODA (400 million USD)

Approval: 1999/Mar/08

Contents: Supply equipment/facility for lighthouse and training service. (6 Lighthouse Class I, 3 Lighthouse Class II, 9 Lighthouse Class III, 14 months and Harbor Entrance Lighthouses)

#### 2.Development of coastal route

(FY 1998 Domestic Survey)

Demands for coastal transportation are floundering because of the economic crisis and careful policy of Viet Nam's government is making the situation worse. A review survey on demand creation concerning coastal transportation and North-South coastal shipping regarding for profit is required.

(FY 2001 Overseas Survey)

Contents of the review study:

- Make M/P for development of port system up to 2010.
- Study in detail 8 main port groups in Vietnam.
- Study on development of Southern Port System.

#### 3. Maritime manpower development

(FY 1998 Domestic Survey)

Although Vietnam has implemented a policy to dispatch maritime crew members to other countries, due to the STCW treaty of IMO, improvement of maritime crew's training has become an urgent issue and JICA's project-type cooperation has been considered.

(FY 2000 Domestic Survey)

JICA's Project-type technical cooperation was requieed for VIMARU(Viet Nam Maritime University) and as the result of evaluation by the JICA's short-term expert in July 2000, both Viet Nam and Japanese governments discussed the details of cooperation on December 7th and expected to implement the technical cooperation on July 2001.

(FY 2001 Overseas Survey)

JICA's project type cooperation aims to construct Search and Rescue system on GMDSS and to operate and manage the LES.

Japanese Technical Cooperation

Dispatch of Experts:

(FY 2000 Domestic Survey)

Long-term expert for GMDSS is being dispatched (Vietnam Maritime University).

Project-type technical cooperation:

(FY 2001 Domestic Survey)

Cooperation period 2000/Oct/01-2004/Sep/30

Project on the Improvement of Higher Maritime Education

Training in Japan:

(FY 2001 Domestic Survey)

10 persons (three years)

On-the-job training in Maritime University and shipyard

#### 4. Shipping Modernization Project

(FY 2000 Domestic Survey)

After completed this study, the domestic industries in Viet Nam were damaged by the Asian economic crisis, there is no concrete action to develop the North.South coastal shipping. In the present situation, VINALINES (Viet Nam national maritime company) operates the domestic shipping industry on a small scale by the ship chartering.

# STUDY SUMMARY SHEET (M/P)

		(11111)	Compilea	Jun.1997
ASE	VNM/S 112/96		Revised	Mar.2008

1.	COUNTRY	Viet Nam							
2.	NAME OF STUDY	Dong Nai and Surrounding Basins Water Resources Development							
	SECTOR	Social Infrastru			ources Devel		4.	TYPE OF STUDY M	1/P
5.	COUNTERPART AGENTIME OF DEVELOPME	Ministry	y of Agriculture o	& Rural Deve	elopment				
	PRESENT COUNTERPA	ART AGENCY							
			e a M/P on comprehensive water resources development including hydroelectric power generation, in supply and flood control in Dong Nai and surrounding basins (target year: 2015). 2) To select projects						
7.	CONSULTANT(S)	Nippon Koei Co	o., Ltd.						
8.	STUDY PERIOD	Sep.1994 ~	Sep	.1996	24month(s)				
9. SITE OR AREA									
1.R 2.R 3.C 4.P 5.W	MAJOR PROPOSED PR ural Agricultural Develop ural Water Supply Projec ombined Development of han Ri-Phan Thiet Irrigat Vater Supply Project alon ction Plan on Institutional	pment Projects ( ets (US\$ f Dong Nai No.3 ion Project (US g National High	72 mil) and No.4 \$\$ 180 mi way No.5	4 Hydropower Pr il) 51 (US\$ 464 mil)	)	S\$ 888 mil) 7ater resources	s Devel	opment Project	

ASE VNM/S 112/96 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

1. Combined Development of Dong Nai No.3 and No.4 Hydropower Projects

Subsequent Study:

(FY 1997 Domestic Survey)

Jan.~Oct. 1997 SAPROF study was conducted by OECF on the Water Supply Project along National Highway No.51. (93.81million yen)

Dec.1998~March 2000 JICA F/S Combined Development project of Dong Nai No.3 & 4 Hydropower.

Finance:

(FY 1998 Domestic Survey)

The combined development project of Dong Nai No.3 & 4 Hydropower will be realized by OECF loan after the completion of F/S by JICA.

(FY 2000 Domestic Survey)

For preparing the request to JBIC loan, it is necessary to obtain the acceptance from the Viet Nam Government, therefore the EVN is drawing up the report concerning to the result of the Feasibility Study (1998 completed by JICA) including the residents transferring plan.

2.Dong Nai and Ba Ria-Vung Tau Water Supply Project (I)

Finance:

(FY 1998 Domestic Survey)

30 March 1998 L/A 5,771 mil. yen

("Dong Nai and Ba Ria-Vung Tau Water Supply Project (I)")

\*Contents: Construction of water supply facilities (water intake facilities, water treatment facilities, main water pipes, distribution pipes, etc.) to supply enough water for daily and industrial use.

Construction:

(FY 2000 Domestic Survey)

D/D Nov.2000 ~

(FY 2001 Overseas Survey)

Progress situation: Partly under construction.

Contents: At present, about 20,000m3/day of surface water is supplied for Ba Ria Vung Tau by existing Song Dinh 2 weir and 10,000m3/day for Ba Ria area and 5,000m3/day for Phu My area.

Stage 1: Ministry have funded to build Song Dinh reservoir (or Song Soai reservoir) to supply water with amount of 110,000m3/day for Ba Ria -Vung Tau area and to irrigate about 2,000ha downstream the reservoir.

By 2015: Additional 400,000m3/day will be supplied by Song Ray reservoir for Ba Ria and the area along national road No.51.

3. Phan Ri-Phan Thiet Irrigation Project.

Subsequent Study

(FY 2001 Overseas Survey)

SAPROF Study has been completed in Oct. 2000. The feasibility study for Song Luy dam has been completed within 2001.

(FY 2002 Domestic Survey)

JBIC E/S

Details: E/S on the Irrigation Development Program which aims at utilizing running water from Hydropower Projects at Dong Nai and its surrounding river basins

Trend of the related projects:

(FY 1998 Domestic Survey)

Dai Ning Proejct, which generates power by utilizing the gap between the Dong Nai River Basin and the coastal area, is in the process of being implemented. It is desired to implement the Phan Ri-Phan Irrigation Project in order to utilize the water resource and alleviate the regional disparity.

(FY 2000 Domestic Survey)

SAPROF Study for the Phan Ri-Phan Thiet Irrigation Project has been conducted by JBIC and expected to complete in Oct. 2000. After making the Loan Agreement concerning to the E/S(Phase I), the D/D study is expected to start in FY 2001.

Also, Dai Ning Hydropower construction is planned to be started with JBIC funding.

(FY 2001 Domestic Survey)

The request for JBIC loan has not been approved yet.

(M/P+F/S)

Compiled Jun.1997

ASE VNM/S 2			Revised	Mar.2008
1. COUNTRY	Viet Nam			
2. NAME OF STUDY	Urban Transport	tation for Hanoi City		
3. SECTOR	Transportation	/ Urban Transportation	4. TYPE OF STUDY M/P+F/S	
COUNTERPART AGENTIME OF DEVELOPME  5.				
PRESENT COUNTERPA	ART AGENCY			
	To formulate a c	levelopment plan on urban transportation for Hanoi C	City, with the target year of 2015.	
6. OBJECTIVES OF THE STUDY				
7. CONSULTANT(S)	Yachiyo Engine Katahira & Engi	ering Co., Ltd. ineers Inc.		
8. STUDY PERIOD	Sep.1995 ~	Dec.1996 15month(s)		
	Hanoi City 923	km2		
9. SITE OR AREA				
10. MAJOR PROPOSED PR <m p=""> 1. Road Development 1,190 2. Rail Development 17.4ks <f s=""> Xuan la New City Developm  [Imp. Period] <m p=""> 1. 1996~2005 2. 2001~2015 <f s=""> 2000~2005</f></m></f></m>	0km m			

ASE VNM/S 211/96 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Promoting

Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

# **Description:**

1. Transportation Development Project in Hanoi.

Subsequent study:

(FY 1999 Domestic Survey) Feb. - Jun. 1998 OECF SAPROF

Finance:

(FY 1999 Domestic Survey)

30 Mar. 1999 L/A 12,510mil.yen "Transport Infrastructure Development Project in Hanoi".

\*Contents: Improvement of various roads and crossings in Hanoi city.

Construction:

(FY 2001 Overseas Survey)

Period: 1999-2015.

Phase I: 1999-2004. Including 4 intersections, 2 roads, 1 resettlement area. Total investment cost: 138 million USD (comprising 89 million USD from ODA grant and 49 million USD from local funding).

Phase II, III, IV: Inner city area (inside Ring Road 3): Intersections, roadsa, resettlement area.

Contractor: Consurltant: Japan Bridge Steel Institute.

Situation of progress: Dec. 2001- Starting construction work in first component part Nga Tu Vong Intersection.

Perspective for remaining works: Starting next 6 component parts in 2002 as below.

Nga Tu So Intersection, Minibypass South Thang Long Bridge, Dike Road, Kimlien Intersection, Ring Road No.1 Kimlien-O Cho Dua, Resettlement Area 56ha.

2. Public Transportation by Bus for Hanoi City.

Finance]

(FY 2001 Overseas Survey) Financial source: State budget.

Amount: 500 billion VND. (570 bus buying, Construct the bus stations, Training course)

Construction:

(FY 2001 Overseas Survey)

Period: 2001-2002.

# Others

F/S on Public Transportation by bus for Hanoi City are planned in 2000.

(FY 2001 Domestic Survey)

- -- The concrete study on railways is expected to be implemented in future.
- -- The Study on the public transportations improvement is requested to be implemented.

**(F/S)** 

Compiled Jun.1997

A	SE VNM/S.	<b>U9/96</b> Revised Mar.200
1.	COUNTRY	Viet Nam
<u> </u>		New Development Plan of Hanoi International Airport
2.	NAME OF STUDY	New Development Fian Of Fianof International Airport
	- ~	
3.	SECTOR	Transportation / Air Transportation & Airport 4. TYPE OF STUDY F/S
5.		
3.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERPA	RT AGENCY
6.	OBJECTIVES OF THE STUDY	1) To formulate a development plan of Hanoi International Airport in order to deal with the increasing demand of international passengers and cargoes in 2015. 2) F/S for development of necessary facilities and management system by 2010.
7	CONSULTANT(S)	Pacific Consultants International
/.	COMBOLIANI(S)	
8.	STUDY PERIOD	Mar.1995 ~ Mar.1996 12month(s)
		Ilonoi Noi Doi Intermetional Aimort
		Hanoi, Noi Bai International Airport
9.	SITE OR AREA	
10.	MAJOR PROPOSED PR	O.IECT(S)
		30ECT(0)
	Medium-term Project	
		y and associated taxiway system.
b)	New international Passe	ager Terminal bldg, and Conversion of the Passenger Terminal bldg. T1 to the domestic terminal bldg.
	New International Cargo	
		for the new runway and taxiways.
		water supply, sewerage, solid waste disposal and aviation fuel supply systems.
f)	Procurement of fire fight	ng vehicles and airport maintenance equipment.
2. I	Long-term Project	
		international services in an area south of the existing airport.
		g airport facilities for domestic services.
		yay 1,850m to the south of and parallel with the existing runway.
		g the existing and new airport facilities on the eastern side.
(Im	p. Period) 1. 1997 July~	005 Dec. 2. Design Target year 2015

ASE VNM/S 309/96 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Finance:

(FY 1997 Domestic Survey)

The Vietnam National Construction Company is building the new air traffic control tower and passenger terminal building.

The first phase is to be completed by the end of 1998. The second phase is by 2007. A second runway may be built after 2007. The construction cost for the passenger terminal building is financed by the Vietnamese government and by financial assistances from France and Japan.

The Noi Bai project is being overseen by Aeroports de Paris (ADP), under a contact financed 70% through long -term French government loan and 30% by the Vietnamese Ministry of Finance. ADP completed the conceptual design review and traffic forecast in December 1996, and is now close to completing the detail design for the technical equipment and systems.

Construction:

(FY 2000 Overseas Survey)

Medium-term project:

In 2001, the construction of the landing line of the wing 1B and the northern taxiway will be launched and planned to be completed by the end of 2002. Long-term project:

To be in compliance with the plan and master plan under the Decision 152 of the government.

(FY 2001 Overseas Survey)

Perspectives for the construction works:

1) The landing line of the wing 1B and the northern taxiway.

New 3,800m x 45m runway and associated taxiway system.

Completion period: 2001/Nov-2003/Jun

- 2) Other progress for the study.
- New Passenger Terminal Building (T1) opened for traffic in Oct.2001 and completed at the end of 2001.
- Cargo Terminal Building: at F/S stage.
- New Navaid system for the new runway will be completed in 2003.
- Other projects such as Power supply, Telephone, sewerage system are in progress.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Jul.1998
ASE VNM/S 103/97 Revised Mar.2008

1.	COUNTRY	Viet Nam
2.	NAME OF STUDY	Economic Development Policy in terms of Transition toward Market Oriented Economy
3.	SECTOR	Development Plan / (Development Plan in) General 4. TYPE OF STUDY M/P
5.	COUNTERPART AGENO	
	PRESENT COUNTERPA	ART AGENCY
6.	OBJECTIVES OF THE STUDY	Make a more concrete and strategic proposal on measures for problems involved with a shift of economic system and the subsequent making of an economic development plan to Vietnam which intends to shift from socialist planned economy to market economy.
7.	CONSULTANT(S)	Daiwa Institute of Research Ltd. The Japan Economic Research Institute Pacific Consultants International
8.	STUDY PERIOD	Dec.1995 ~ Sep.1997 21month(s) ~
9.	SITE OR AREA	Whole areas of Vietnam

# 10. MAJOR PROPOSED PROJECT(S)

Period in which studies are conducted: Phase I (conclusion of SW August 1995, December 1995-June 1996), Phase II (conclusion of SW October 1996, December. 1996-September 1997)

# Phase I

- 1. Macro economy: (1) Examination of a draft of a 5-Year Development Plan (2) Foreign exchange rate policy (3) Change in economic statistical system (4) Environmental measure (5) Poverty alleviation
- 2. Fiscal and financial policy: (1)Tax reform (2) Promotion of efficient fiscal expenditure (3) Clarification of fiscal relations between the central and local

Governments (4) Extension of functions of financial system (5) Supply of funds from a household sector to a corporate sector (6) Medium and long-term supply of funds to industries (7) Thorough management of foreign debt

- 3. Industrial policy: (1) Bringing out potentials of labor-intensive industries (2) Examination of heavy chemical industry projects (3) Policy for foreign direct investment (4) Promotion of small and medium-sized businesses and rural industry (5) Measures for participation in APEC and AFTA
- 4. Agricultural and rural development: (1) Intensification and diversification of agriculture (2) Policy framework for agricultural development (3) Improvement in rural financial system (4) Reconstruction of farmers' organizations

# Phase II

- 1. Agricultural and rural economy: (1) Diversification of agriculture (2) Establishment of new agricultural cooperatives (3) Increase in non-agricultural employment opportunities (4) Development of rural infrastructure in the Red River Delta (5) Improvement in rural financial system (6) Poverty alleviation
- 2. Participation in AFTA/APEC/WTO and industrial policy: (1) Fostering leading export industries (2) Policy for small and medium-sized businesses, Fostering supporting industries
- 3. Fiscal and financial policy: (1) Fiscal management reform (2) Financial system reform (3) Improvement in bank functions
- 4. Reform of state-operated enterprises

ASE VNM/S 103/97 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

Funding:

(FY 1999 Domestic Survey)

September 29, 1999 E/N 20 billion JPN "Loan for Supporting Economic Reforms"

### (FY 1998 Domestic Survey)

We have not gotten information about the concrete use situation of the results of the study. But, it seems that the results will be used effectively in the future for the country which is in a transition period to market economy.

### (FY 1999 Overseas Survey)

MPI used the results of the study to make the social and economic 5-Year Plan (1996-2000).

# (FY 2007 Overseas Survey)

Establishment of master plans for socioeconomic development to 2020 followed the trends of sustainable development of economics, society and environment, therein, this period will be divided into smaller period to 2015 and to 2020, and recommending solutions for implementation and development of regional development plans. The following subsequent studies have been implemented by the Government of Vietnam.

- 1) Economic strengthening and energy saving (electrical energy);
- 2) Scientific foundations for choosing strategic partner of Vietnam in the national development period 2011-2020;
- 3) Select model of agricultural labor transformation in term of sustainable development;
- 4) Analysis and forecast indirect investment direction into Vietnam to 2015;
- 5) Determine study contents of main social problems of territorial plan (take an example of the Red River Delta).
- 6) Scientific foundation for establishment of water provision for consumption of the North focal economic region in period 2010-2020.
- 7) Scientific foundation for processing main macro economic indicators from plans of provinces and centrally managed cities.
- 8) Building scientific and factual foundations for sustainable development of Red River Delta.
- 9) Study on scientific foundations for establishment of coorporating mechanism among provinces, cities in the North focal economic region.

In order to solve the environmental problems, changing the present breeding customs and processing waster from breeding animals are necessary.

- 1) Establishing the methods to protect environment.
- 2) Projects of processing the wasters of breeding animals in rural areas (bio-gas)

(M/P+F/S)

Compiled Jul.1998

AS	SE VNM/S 2				Revised	Mar.2008
1.	COUNTRY	Viet Nam				
2.	NAME OF STUDY	Water Supply D	evelopment for Hanoi City			
3.	SECTOR	Public Utilities	/ Water Supply Hanoi Water Business Co.Ltd., Hanoi People's Com	4. TYPE OF STUDY M	I/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME PRESENT COUNTERPA	ENT STUDY	Tanor Water Business Co. Eta., Tanor People's Com			
6.	Pacific Consultants International					
	CONSULTANT(S)	Feb.1996 ~	Sep.1997 19month(s)			
8.	STUDY PERIOD	~	•			
9.	SITE OR AREA	Hanoi City 2,14	to ha			
M/ Ou Th (1) (2) (3) (4) (5) Co	tline of M/P: e estimation of demand for Population estimated 3,2 Amount of demand for w Necessary capacity of facil Existing capacity of facil Development capacity 6 nstruction cost for faciliti	or Water, present to 200,000 people water 760,000m3 icilities 1,100,000 lities 500,000m3/day ies with the devel	0m3/day /day opment capacity of 600,000m3/day is about US\$540		follows.	
Ou F/S Th (1) (2) (3) (4)	tline of F/S: S selects urgent projects in e detailed content of F/S in Target year 2000-2003 Capacity of facilities 60	n M/P. is as follows. 0,000m3/day cility to take wate: 4 million	and Thanh Xuan areas with the target year of 2000 r, Water purification plant, Water distribution facility	, Water supply facility		

ASE VNM/S 209/97 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

## **Description:**

(FY 1998 Domestic Survey)

It is urgent to develop social and economic infrastructure, and they decided to implement sewer projects with OECF loan after accepting proposals of the JICA development study "Study on Urban Drainage and Wastewater Disposal System in Hanoi City (S201/94)". It is expected that there will be movements for the implementation of the projects in the future.

(FY 1999 Domestic Survey) (FY 1999 Overseas Survey)

There is no additional information.

(FY 2001 Overseas Survey)

The study was proceeded based on the urban development plan in Hanoi City. Urban development reduced its size in the target areas of the study for water supply and the amount of demand for water did not increase than expected because foreign investments into the city stagnated due to the Asian economic crisis in 1998. On the other hand, an improvement plan implemented by the World Bank as a preceding project covers neighboring areas of the study, and thus a construction plan is in progress there. HPC which is an implementing institution of the study will decide how to deal with projects proposed by the study after making sure of ongoing plans and the amount of demand for water based on an urban development plan after changes.

(FY 2002 Domestic Survey)

A JICA development study (F/S) was requested in FY 2002.

(FY 2003 Overseas Survey)

A study on improvement in the management of facilities for water supply in Hanoi was implemented in February 2002.

Financial assistance has not been requested for.

Concrete actions toward the implementation of the Master Plan:

- 1. Repairs and replacement of drainage pipes and the installment of water meters for consumers in urban parts of Hanoi
- 2. Construction of new wells for securing the capacity of water treatment plants
- 3. Construction of a water treatment plant in northern parts of Thang Long (capacity: 30,000m3 per day).
- $4. \ Putting \ results \ of \ pre-F/S \ studies \ related \ to \ the \ construction \ of \ surface \ water \ treatment \ plants \ (capacity: 150,000m3 \ per \ day) \ together \ and \ submitting \ it \ to \ the \ government$
- 5. Design of extension works of the Cao Dinh facility
- 6. Preparation of a F/S study for the construction of the Nam Du Thuong treatment plant (capacity: 60,000m3 per day)
- 7. Preparation of a F/S study for the construction of the Thuong Cat surface water treatment plant (capacity: 60,000m3 per day).
- 8. According to the Master Plan, the project for increasing productive capacity of the Gia Lam treatment plant was supposed to be implemented in 2005-2010, but a F/S study is prepared for now.

(FY 2007 Domestic Survey)

1. The current condition of the M/P

The Target area of the mentioned study (target population: 1 million) is based on the M/P (target year: 2005) prepared by FINNIDA, which selected the Hanoi Metropolitan Area (population: 3 million) as the target area, targeting of 2010. Due to interruption of investments from South-East Asia caused by Asian Economic Crisis, the urban development plan of Hanoi and the M/P (population of water supplied and water supply quantity) was also interrupted.

HWBC updated the mentioned M/P to target 2020 (only for Hanoi city-center), corresponding to the urban development plan. The M/P's target year is also extended to 2025 corresponding to the National Development Plan. The M/P of the city, and city-center's target year is now 2025. Other areas' M/P is formulated based on the JICA's M/P.

2. current condition of the F/S

F/S of the mentioned study targeted 60,000m3 of water supply for western side of the Hanoi City and newly developed areas. Due to the Asian Economic Crisis, the plan was abandoned and water supply quantity has plummeted.

Eastern side of the F/S' has been already implemented (Cao Dinh project) by the WB which by enlarging the scale covered the area removed form the F/S due to Asian economic crisis. The project covers the target areas which are excluded from the downsized F/S by extending the project in small-scale. As a result the mentioned F/S was abandoned.

The HWBC started to shift the water source from underground water to the Da River because the increasing water demanding is forecasted to excess underground water capacity in 2013. The intake will be done by BOT of VINA CONEX (A Vietnamese private company). The project (300,000m3/day) will be extended. The existing intake from underground water will be halted, and the water intake issue of Hanoi will be solved by these projects. (FY 2007 Overseas Survey)

Implemented study: Red River Surface Water Treatment Plant, capacity 150,000m3/day (phase I)

Implementing period: 2002-

Implementing body: VATECH WABAG(Austria), Vietnam Water Supply and Sewerage and Environment Co.(VIWASE)

Contents: The Pre-F/S proposed technical solution for treatment of Red River surface water based on water quality assessment. The study emphasis on appropriate location of water intake structure and treatment of solid waste occupying from the process.

Progress: The completed Pre-FS has been submitted to MOC for approval in May, 2006.

In December 2006, MOC have sub submitted an official document to HPC, requesting HWBC and other concerned parties of Hanoi to cooperate in reviewing "Hnoi city constructional Master Plan" and to pare "Regional master supply demand plan of Hanoi"

HWBC have been contacted by the Urban and Rural Planning Institute, of MOC for collect the information and data related to the Regional Planning of Hanoi. However, according to the report of the Urban and Rural Planning Institute, information and data for the Hanoi Regional Planning Project were only collected and analyzed and have not been approved by the competent authorities. Thus, these data are considered to be only referenced and are not reliable and feasible to apply for the Red River water treatment project in calculating and planning works.

At present, HWBC is still waiting for the Prime Minister's approval on the Water Supply Master plan and the Regional Water Supply Master plan for Hanoi City which are under preparation of MOC.

Implementing project: The Non-Revenue Water Project for Hanoi

Implementing period: 2006-2007

Implementing body: The World Bank, Hanoi Water Business Company (HWBC)

Funding party: PPIAP

Contents: study on the non-revenue water situation of Hanoi based on the data and figures provided by HWBC during the years 2005, 2006. The plan aim the City to improve its network management, leakage reduction and NRW management activities, so as to reduce the Non-revenue rate from 42% at present to 25% in the future.

(M/P+F/S)

Compiled Jul.1998 **ASE** VNM/A 219/97 Revised Mar.2008

1.	COUNTRY	Viet Nam	/iet Nam				
2.	NAME OF STUDY	Model Rural De	evelopment in Nam Dam District, Nghe An	Province			
3.	SECTOR	Agriculture	/ (Agriculture in) General	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Ministry of Agriculture and Rural Develop	ment (MARD)			
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	agricultural proc	est of the government of Vietnam, make a reluctivity and the level of lives for local resident, Nghe An province (area: about 30,000 ha	dents and condu	ct a feasibility stud	y for priority projects in	
7.	CONSULTANT(S)	Pacific Consultants International Pasco International Inc.					
8.	STUDY PERIOD	Sep.1996 ~	Feb.1998 17month(s)				
	SITE OR AREA  MAJOR PROPOSED PR	300 km south of conducted in oth	Nam Dan district, Nghe An province (area: f the capital, Hanoi. Also, concerning a studner areas which are not a target of the study,	y on agricultura	al processing and ma		

# 10. MAJOR PROPOSED PROJECT(S)

M/P:

- 1. Irrigation and drainage project:
- (a) Reservoir irrigation project Ho Thanh, Trang den, Cua Ong, Rao Bank (b) Pump irrigation project Nam Dong, Nam Cuong 2
- (c) Project for reducing flood damages and improving drainage Nam Nam Dike
- 2. Project for supporting agriculture: Agricultural extension center, Seed supply improvement center, Agricultural mechanization service center
- 3. Project for improving agricultural processing and distribution: General facility for agricultural processing, Market-oriented facility for shipment
- 4. Sanitation project: Plan to improve sanitation
- 5. Educational facility project: Supply of electricity for schools, Rehabilitation of school facilities
- 6. Rural road project: Route 15A (North), Route 15A (South), 42 Dike Road, Phan Boi-Chua Road, Hung Tien-Nam Linh Road, 42 Dike-Kim Lien Road, Kim Lien-Nam Cat Road, Nam Tam-Nam Loc Road, Nam Nam Dike Road, Nam Kim-N. Phuc-N. Cuong Road
- 7. Rural electrification project: Electrification in areas where electrification is not implemented, Repair of power distribution network
- 8. Rural water supply project: Public water tap system (pond area), Public water tap system (dried-up area), Supply of equipments and materials for small water purification tanks
- 9. Environmental preservation project: Construction works for preventing erosion control F/S:

[Agricultural Production]

- 1. Irrigation and drainage: (a) Reservoir irrigation system Ho Thanh, Trang den, Cua Ong, Rao Bang (b) Pump irrigation system Nam Dong, Nam Cuong 2 (c) Reduction in flood damages, Improvement in drainage - Nam Nam Dike
- 2. Support for agriculture: Agriculture extension center, Seed supply improvement center, Agricultural mechanization service center
- 3. Agricultural processing and distribution: General facility for agricultural processing, Market-oriented facility for shipment [Rural Life]
- 1. Educational facility: Supply of electricity for schools, Rehabilitation of school facilities
- 2. Rural water supply: Public water tap system, Supply of equipments and materials for small water purification tanks [Basic Infrastructure]
- 1. Rural road: Route 15A (Northern Part), Route 15A (Southern Part), 42 Dike Road, Phan Boi-Chua Road, Nam Nam Dike Road, Nam Kim-Nam Phuc-Nam Cuong Road
- 2. Rural electrification: Repair of power distribution network

[Environment] Environmental preservation: Construction works for preventing soil erosion

[Project Period Planned]

(M/P) 1999-2010 (F/S) 10 years

ゲアン省ナムダン県モデル農村開発計画

ASE VNM/A 219/97 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

# (FY 1998 Domestic Survey)

Based on proposed F/S,, "Model Rural Development Project in Nam Nam Area" was selected, with its center in 5 communes in Southwestern regions.

A request for grant aid was submitted to the embassy of Japan by MPI on August 1998 and sent to the Ministry of Foreign Affairs of Japan (MOFA) on September 1998. MOFA has a policy to implement the project as an excellent project, taking the fact that Nam Dan district is a birth place of Ho Chi Minh into consideration. But, MOFA thinks that B/D is conducted in the latter half of a next fiscal year at the earliest because they must wait for the implementation of other grant aid projects.

### (FY 1999 Domestic Survey)

They have decided a policy to implement the project with grant aid, but they have not decided the time of the implementation. A preliminary study mission is scheduled on December 1999, and the schedule of B/D will be decided on January 2000.

# (FY 1999 Overseas Survey)

Grant aid cooperation was decided (amount of money requested: US\$23,856,000).

\*Content of a request: Repair of facilities for irrigation and drainage, Repair of facilities for electricity in rural areas

### (FY 2001 Overseas Survey)

"Model Agricultural Development Plan in Nam Nam" was made, based on the results of F/S, and MPI submitted a request for grant aid to the embassy of Japan on August 1998. There is no concrete plan in both pledge and approval, but a prearatory study was conducted from July 25, 2000 to August 3, 2000. Project for improving facilities

### (FY 2001 Domestic Survey)

### Finance:

Their country's budget (Based on F/S of the study, improvement in facilities was in progress with their country's budget when a preliminary study mission for grant aid fund arrived at the country. Concerning facilities for irrigation, most of the projects proposed in the study finished, and also concerning bridges for which financial sources other than grant aid were examined, a project for them was being implemented.)

# (FY 2001 Overseas Survey)

The following projects were implemented with local supports.

- 1. Irrigation and drainage sector
- a. Water supply and irrigation systems in Ho Thanh: A part of channels was improved.
- b. Pump irrigation system in Nam Dan: Improvement in channel system
- 2. Rural road sector

They are improving the Nam Nam Dike road. They plan to pave the road with a fund for the project.

3. They constructed a bridge over Lam River as a substitute for ferry.

Prospect for the future:

# (FY 2001 Domestic Survey)

A local People's Committee requested to promote the implementation of unimplemented projects, and the local embassy of Japan submitted the request to MOFA. Impact in development:

# (FY 2001 Overseas Survey)

It is expected that the standard of living for residents in the study area and around it will improve largely as a result of the implementation of the planned projects, through the effects of an increase in agricultural production, the stable supply of foods, an increase in employment opportunities, diversification/increase in income and improvement in living environment etc. Also, in environmental assessment, the projects are certainly sustainable because no negative environmental impact is found.

(Basic Study)

Compiled

Jul.1998

**ASE** VNM/A 503/97 Revised Mar.2008 1. COUNTRY Viet Nam The Marine Resources Survey 2. NAME OF STUDY 3. SECTOR Fishery / Fishery TYPE OF STUDY Basic Study 5. Research Institute of Marine Products (RIMP), Ministry of Fisheries (MOF) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Understand the amount and distribution of offshore large pelagic fish resources by conducting a study on marine resources in the Exclusive Economic Zone (EEZ) in Vietnam, and understand the actual situation and resources of coastal fishery by conducting a land study. Based on the results of the both studies, make a guideline for marine resource management which contributes to proper fishery. **OBJECTIVES OF THE** 6. STUDY 7. CONSULTANT(S) Feb.1995 Feb 1998 36month(s) 8. STUDY PERIOD Marine study: Areas below 40 m in depth in EEZ surrounded by latitude 8 degrees north, latitude 18 degrees north and 112 degrees of east longitude in central areas of sea of Vietnam Land study: 5 provinces in central areas of Vietnam 9. SITE OR AREA

# 10. MAJOR PROPOSED PROJECT(S)

Marine study: Composition of fish species caught, Distribution of main fish species, Relative catch

Land study: (1) Study on fishery production (2) Study in provinces (3) Study in marine economies (4) Study in societies in fishing villages Also, provinces (landing ports) for land study are the following 5 provinces: Ba Ria-Vung Tau province (Vung Tau port), Binh Thuan province (Phan Thiet port), Khanh Hoa province (Nha Trang port), Quang Nam province and Da Nang province (Da Nang port) and Quang Binh province (Dong Hoi port).

We made guidelines for marine resource management and proposals related to marine vitalization policies for the following items.

- 1. Experimental offshore operation by a fleet of vessels
- 2. Improvement in fishery statistics
- 3. Continuation and extension of scientific studies on resources
- 4. Reexamination of regulations for fisheries
- 5. Making of fishermen's organizations
- 6. Technical innovation
- 7. Preservation of freshness of marine products and the extension of distribution by processing
- 8. Expansion of activities of patrol vessels and research vessels etc.
- 9. Improvement in infrastructure

ASE VNM/A 503/97 Basic Study

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# Description:

(FY 1998 Domestic Survey)

- 1. The study was conducted for a study on a catch of resources for large pelagic fish by using drift nets (surface gill nets) and Vietnamese sunk drift nets.
- 2. The Vietnamese side highly evaluated the results of the study. But, they expressed the will to request the government of Japan to undertake continuous studies on large pelagic fish such as tuna which swim in deeper layers and which were not the target of the study due to the constraints of fishing gears used. The Vietnamese side who wants to vitalize offshore fisheries has strong desire to realize the continuous studies.
- 3. However, a study team just proposed the Vietnamese side to make a formal request through the embassy of Japan because the study team thought that the study was different from the study conducted this time.

(FY 1999 Overseas Survey)

A JICA's study on offshore tuna resources is scheduled from 2001.

(FY 2000 Domestic Survey)

Concerning the proposals in the study, there is no concrete progress because of economical stagnation and undeveloped legal system etc. in the country. But, it seems that a Japanese company and a local company negotiate in Haiphong to establish a joint venture for the processing of marine products.

(FY 2001 Overseas Survey)

The results of the study are used for the development of offshore deep-sea fishing in Vietnam.

Test fishing is done by gill nets and longline fishing in offshore areas.

Fishery statistical system is adjusted now.

(FY 2007 Domestic Survey)

No information to be specifically mentioned.

			( <b>M/P</b> )	Compiled	Dec.1999
AS	SE VNM/S 121	/98		Revised	Mar.2008
1.	COUNTRY	Viet Nam			
2.	NAME OF STUDY	Hoa Lac Xuan N	Mai Areas Urban Development Project		
3.	SECTOR	Development Pl	an / (Development Plan in) General <b>4. TYPE OF STUDY</b> M/P		
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Development Strategy Institute, Ministry of Planning and Investment		
	PRESENT COUNTERPA	ART AGENCY			
	1	1.To identify a r	olicy/strategy for urban development and to establish future urban development nee	ds on Hoa I	ac Xuan

6. OBJECTIVES OF THE STUDY	<ul><li>2.To formulate a M/P for the Hoa Lac Xuan Mai areas urban development for the period up to the year of 2020 and to propose a short list of priority projects.</li><li>3.To transfer relavant technology to Vietnam counterpart personnel in the course of the Study.</li></ul>
	Pacific Consultants International
7. CONSULTANT(S)	Nippon Koei Co., Ltd.
8. STUDY PERIOD	Dec.1997 ~ Mar.1999 15month(s) ~
	The areas of Son Tay, Hoa Lac, Xuan Mai, and Mieu Mon, located along the National Road 21A (NR21A).
9. SITE OR AREA	

# 10. MAJOR PROPOSED PROJECT(S)

Mai areas.

Hoa Lac and Xuan Mai Areas Urban Development Project as "New Research and Education Town".

- 1.The Vietnam National University (VNU) will be relocated to the New Town, and at the same time, VNU will be expanded to a multi-disciplinary and comprehensive university, including, among other faculties and universities, the newly established Faculties of Technology, Economics, and Law. 2.By developing the Hoa Lac High-Tech Park (HHTP), the functions of research and development (R&D) and training of high-level engineers and researchers will be developed by keeping close linkage with VNU and industrial locators.
- 3.Part of the important urban functions such as international exchange, cultural exchange, recreation, and so on will be shared with HMA.

  4.As to the infrastructure development, water will be supplied from the Da River, electricity will be transmitted from the Hoa Binh Dam, high-order telecommunication network will be provided, and adequate sewerage treatment plants and solid waste management will be provided properly. The road network in the New Town will form a grid pattern compatible with the site conditions, and appropriate public transportation systems, will be introduced such as a bus system in the short to medium term and a mass transit system in the long term.

ASE VNM/S 121/98 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

(FY 1999 Domestic Survey)

There has not been any progress.

(FY 2000 Overseas Survey)

The following 2 projects are on going.

- 1. Relocation and expansion of VNU
- 2. Development of HoaLac High-Tech Park(HHTP)

The following 3 projects are prepared for implementation.

- 1. Development of HoaLoc Ceneter City
- 2. Development of infrestructure for HoaLac-XuanMai City
- 3. Development of sport center for 2003's SEAGAMES
- 1. Relocation and expansion of VNU

(FY 2001 Domestic Survey)

Although VNU was planned to be relocated during the study to Hoa Lac, 32km west from Hanoi, the VNU secretariat was finally relocated to NguyerDu in Hanoi. It seems that there was no advantage to relocate VNU to Hoa Lac, and that it became impossible to apply for financial plan after the new secretariat was established. (FY 2001 Overseas Survey)

Relocation of VNU was started in the end of 2000. Student Biological Village was being constructed near Muc Hill where is used as a students' picnic place. VNU has found underground water available for the VNU area. The details of the VNU M/P are in progress.

# 2. Development of the Hoa Lac High-Tech Park

(FY 2001 Domestic Survey)

The High-Tech Park secretariat was newly established in Hoa Lac. However, foreign inventment is decreasing due to the weak power of MOSTE and the financial crisis of ASEAN as well as the economic depression in the United States and Japan. Currently foreign investment has gathered in the Hanoi suburbs and lacks economic vitality as private sector participation.

(FY 2001 Overseas Survey)

E-Learning Center for learning PC skills adopted the Japanese standards in the begining of Sep.2001. Until now. three counpanies received approval for construction of the center in HHTP area.

# 3. Development of the City of Hoa Lac Center

(FY 2001 Domestic Survey)

Since the private sector investment is declined, it is necessary to precede the public investment. Since the High-Tech Park secretariat was founded, it is necessary to relocate the public housing and the university facilities.

(FY 2001 Overseas Survey)

HoaLac Center development is included in the project. The land for the center has been acquired in Muc Hill Area.

# 4. Infrastructure building at the Cities of Hoa Lac and Xuan Mai

(FY 2001 Domestic Survey)

The expressway between Hanoi and Hoa Lac was completed and National Highway 21A between Hoa Lac and Xuan Mai is in operation. About the water supply to Hanoi, a plan to install a pipeline along the Hanoi- Hoa Lac expressway is progressing. Electric power can be supplied from the Hoa Binh hydroelectric power station. (FY 2001 Overseas Survey)

Construction of the basic system between HoaLac and Xuan Mai is on-going. Construction of the road between Lan HoaLac Highway and the center of High Tech Park area is in progress and will be completed by the end of 2000. E-learning Center was constructed in HTTP area by Japan's fund in 2000. Intensive resettlement of the residents is on going. Sub-projects are deleyed due to the lack of finance. Japan's aid is important and indispensable for the development of HoaLac and Xuan Mai.

# 5. Construction of Sports Center for SEAGAMES in 2003

(FY 2001 Domestic Survey)

The location plan of the Sport Center was changed to Hanoi suburbs. Therefore, it is necessary to change the usage of the first site for a different purpose such as urban park or theme park.

(FY 2001 Overseas Survey)

Sport Center for SEAGAME in 2003 is being constructed intensively as the basic system of Lan HoaLac Highway.

(M/P+F/S)

		/	Complica	Dec.1777
ASE	VNM/S 208/98		Revised	Mar.2008

Compiled Dec 1999

	~~~	T.71 . 3.7					
1.	COUNTRY	Viet Nam					
2.	NAME OF STUDY	Port Developme	ent Plan in the Central Region of the	Key Area			
3.	SECTOR	Transportation	/ Port	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Transport Engineering Design Inc.(	TEDI)			
	PRESENT COUNTERP						
6.	OBJECTIVES OF THE STUDY	This study aims at formulating a long term port development plan for Chan May, Lien Chieu, and Dung Quat and proposing the initial stage development plan for 3 sites, which consists of a package of the port facilities required first stage of new port development.  1)To formulate long term port development plans for 3 development sites by the year of 2020.  2)To formulate an initial stage plan encompassing the package of port facilities to be developed at the first stage of development  3)To make a financial analysis and environmental impact study for a selected initial stage development plan to assef feasibility of the project as a short term development plan up to the year of 2010.				rt facilities required for the . ed at the first stage of the	
7.	CONSULTANT(S)	The Overseas Coastal Area Development Institute Japan Port Consultants Co., Ltd.					
8.	STUDY PERIOD	Feb.1997 ~	Aug.1998 18month(s)				
9.	SITE OR AREA	1)Chan May 2)Lien Chieu 3)Dung Quat					

# 10. MAJOR PROPOSED PROJECT(S)

<M/P> 1)Chan May Port: Develop as a gateway to the industrial park in the hinterland.

2)Lien Chieu Port: Develop as a commercial port serving for the key area of central Vietnam as well as for other indusrial zones.

3)Dung Quat Port: Develop as an oil refinery port and a gateway to the petrochemical plant.

# <F/S>

# 1)Chan May Port

Develop a multi-purpose berth with a provisional alongside depth of -12m (to be deepened to -13m in the future) which will accommodate 40,000GT class car carriers and bulk carriers. Development of 2 conventional berths with an alongside depth of -8m are also planned to accommodate conventional cargo ships and ocean going passenger ships.

# 2)Lien Chieu Port

Berth E1 is designed as a multi-purpose berth. The design depth of channel and turning basin is -11m and the pocket dredging in front of the Berth E1 is -12m.

2 conventional cargo berths, W1 and W2, are designed with alongside depth of -8m.

# 3)Dung Quat Port

Develop a port required to cater 1,000-50,000 DWT class product oil tankers.

ASE VNM/S 208/98 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

Situation:

(FY 2000 Overseas Survey)

From the view of TEDI, the role of 3 ports has not been changed in comparison with the result of this study.

Status:

(1)Chan May

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Chan May Port is waiting for industrial development of hinterland.

(FY 2000 Overseas Survey)

To promote the development of Chan May Industrial Zone, the road connencting NH1 to Chan May Port has been constructed and TEDI is preparing a project of constructing 1 berth for 10,000 DWT ships. This project is supported by People Committee of Hue City.

Fund Procurement:

(FY 2001 Overseas Survey)

Source: State Budget (160 billion VND) Pledge or approval: Dec. 2000

Contents: Wharf, Reelamation, Dredging, Warehouses, etc.

Construction:

(FY 2001 Overseas Survey)

Period: 2 years.

# (2)Lien Chieu

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Port of Da Nang(including Lien Chieu, Tiensa, Song Han) is defined as a general key port in the central region. Port of Tiensa, of which development study was conducted by ADB, is under improvement in Danang City, and Lien Chieu Port plan will be followed by Low Case.

(FY 2000 Overseas Survey)

Da Nang Port (Tien Sa, Lien Chieu, Song Han) is still considerd as the largest commercial port in Central Region. First, Tien Sa Port will be rehabilitated and then Lien Chieu Port will be developed.

"Da Nang Port Improvement Project" (including improvement of Tien Sa Port and the access road) is under implementation and funded by JBIC. It is expected that construction will be started early 2001 and under operation in 2002.

(FY 2001 Overseas Survey)

No works for Lien Chieu. Priority is now given to development of Tien Sa Port.

Fund Procurement:

Mar. 30, 1999 L/A (10,690 million yen) "Da Nang Port Improvement Project"

# (3)Dung Quat

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Refinery project in Dung Quat was authorized as a national project which is announced to begin its operation in 2001, however there has been no progress yet. (FY 2000 Overseas Survey)

Construction of Dung Quat Refinery No.1 is under implementation in hinterland of Dung Quat Port. The refinery is managed by VietRoss, a JV between PetroVietnum and Russia. The following facilities belong to the management of VietRoss: Breakwater, Crude-oil import berth, Oil-product export berth, berth to serve the refinery.

The berth to serve construction of the refinery will be under operation in the early 2001. VietRoss is proceeding with bidding procedures for construction of breakwater and oil berth. It is expected that these facilities will be completed in 2003.

The breakwater and the oil berth were proposed in JICA's study.

Construction:

(FY 2001 Overseas Survey)

1)Breakwater (Length: 1,550m)

Period: 2001-2003

Situation of Progress: Starting. 2) Crude-oil import berth

Situation fo Progress: Bidding evaluation.

3) Oil product export port Period: 2001-2003

Contents: 2 berths for 30,000 DWT Tankar, 4 berths for 5,000 DWT Tanker.

Situation of Progress: Starting

(F/S)

Compiled Dec.1999 **ASE** VNM/S 303/98 Revised Mar.2008

1.	COUNTRY	Viet Nam									
2.	NAME OF STUDY	Thanh Tri Bridg	ge and the Souther	rn Section of Ri	ing Road l	No.3 in Han	oi				
3.	SECTOR	Transportation	/ <b>F</b>	Road			4.	TYPE O	F STUDY	F/S	
5.  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			PMU Thang Lor		Fransport.						
	PRESENT COUNTERPA										
6.	OBJECTIVES OF THE STUDY	To study the fea No.3 around Ha	•	struction for Th	'hanh Tri E	tridge over t	the Red	l River ar	nd the Sou	thern Section of Ring Ro	ad
7.	CONSULTANT(S)	Pacific Consulta	ants International								
8.	STUDY PERIOD	Jul.1997 ~	Sep.1998	14month(s)							
	SITE OR AREA		een National High	away No.1 and I	No.5 of R	ing Road No	o.3.				
10.	MAJOR PROPOSED PR	OJECT(S)									

- 1. Thanh Tri Bridge (3.1km): main bridge, approach and dyke bridges.
- 2. Than Tri Section of SHTRR (6.1km): lane throughways, frontage roads, border facilities, interchanges, prestressed concrete girder throughway
- 3. Gia Lam Section of SHTRR (3.2km): lane throughways, frontage roads, border facilities, interchanges, toll plaza, prestressed concrete girder throughway bridges.
- \* SHTRR = Southern section of Hanoi Third Ring Road.

ASE VNM/S 303/98 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent study:

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Apr. 1999 - May 2000 D/D in collaboration of JICA and OECF "Thanh Tri Bridge and Can Tho Bridge Construction Project".

\*Contents: D/D of 1)the Thanh Tri (Red River) Bridge; 2)Gia Lam Side; 3)Thanh Tri Side (1); 4) Thanh Tri Side (2); and 5)Infrastructure in the Resettlement Area.

### Finance:

(FY 1999 Domestic Survey)

Dec.1999 Japan's ODA Loan was pledged.

(FY 2000 Overseas Survey)

L/A of Japan's ODA Loan(10,000 mil. yen) was contracted in Mar. 2000.

L/A of Japan's ODA Loan(14,863 mil. yen) was contracted in Mar. 2002.

Construction:

(FY 2003 Overseasc Survey)

Selection of Supervision Consultant: Consulting Services Contract was signed on 26 August 2002 between PMU My Thaun and the JV Nippon Koei Co., Ltd.

ChodaiCo.,Ltd. TEDI and TEDIS.

Review Detailed Design Work: is now under way.

(FY 2003 Domestic Survey)(FY 2003 Overseasc Survey)

Conditions of construction progress:

PK1: November 28, 2002 - 72 months (as of end of September: 11.62%)

PK2: October 2003 - 55 months PK3: Not yet started (15 months)

(F/S)

			(F/S) Compiled Dec.19	99
AS	E VNM	I/S 304/98	Revised Mar.20	08
1	COLINEDA	Viet Nom		

1.	COUNTRY	Viet Nam		
2.	NAME OF STUDY	Can Tho Bridge	Construction	
3.	SECTOR	Transportation	/ Road	4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	СҮ АТ ТНЕ	Ministry of Transport(PMU-My Thuan)	N
	PRESENT COUNTERPA			
6.	OBJECTIVES OF THE STUDY		of the study is to conduct a F/S for the Can Thoer to the counterpart of Vietnam.	Bridge construction(target year: 2010) and to implement
7.	CONSULTANT(S)	Nippon Koei Co PADECO Co,. 1		
8.	STUDY PERIOD	Aug.1997 ~	Nov.1998 15month(s)	
	SITE OR AREA		e will locate between Vinh Long and Can Tho F	rovince in Vietnam.
10.	MAJOR PROPOSED PR	OJECT(S)		

# 1.Project

The main bridge which spans the Hau River will be constructed to connect Vinh Long and Can Tho provinces. Approach road on both riversides will be also constructed.

# 2.Outline of the project Length: 14.6km Bridge length: 2.6km

Approach road: 12.0km (Vinh Long side 5.0km, Can Tho side 7.0km)

Approach span bridge: prestressed concrete box girder

Service area: 2 locations Toll gate: 1 location

# [Imp. Period]

Detailed Design: June 1999-Sep. 2000 Construction : Oct. 2001-June 2005

ASE VNM/S 304/98 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent study:

(FY 1999 Domestic Survey)

Dec. 1998 D/D "Thanh Tri Bridge and Can Tho Bridge Construction Project".

### Finance

The government of Viet Nam requested to Japan for ODA loan on Detailed Design and bridge construction on Nov. 1998.

(FY 2000 Domestic Survey)

The project was included in Japan's ODA loan long list.

(FY 2001 Domestic Survey)

30 Mar. 2001 L/A 248,47 mil. Yen

Construction:

(FY 1999 Domestic Survey)

Land acquisition and construction of infrastructure will be implemented from March 2000 to June 2001.

Main construction is divided into 3 phases, which will be commenced on Feb.2002 and completed by Aug.2006.

(FY 2001 Overseas Survey)

Land acquisition: Procedures are being fulfilled for requesting the approval of the land acquisition costs. The infrastructures of the Resettlement Areas in Can Tho and Vinh Long provinces are being built, using local counterpart funds.

UXO clearance: completed.

Procurement: The selection fo a Supervision Consultant is now under way.

(FY 2003 Overseas Survey)

Start in April 2004 with a Period of 50 moonths.

Land acquisition: neary completed.

Section of Supervision Consultant: The Consulting Services Contract was sigined on 2 August 2002 between PMU MyThuan and the JV pf Nippon Koei Co.,Ltd. Chodai Co.,Ltd. TEDI and TEDIS.

### Background

(FY 1999 Overseas Survey)

The construction of Can Tho Bridge which is aimed as a part of the arterial road of National Highway No.1, is the top priority project in infrastructure development strategy of Viet Nam to the year 2010. Can Tho ferry which is the only transport means to cross Hau River experiences heavy traffic and is a bottleneck for the development of the area. Therefore, the construction of Can Tho Bridge is essential for improving transportation and promoting development of the economy and society of the concerned areas as well as Viet Nam.

# STUDY SUMMARY SHEET (M/P)

Compiled Jun.2000 ACT V/N/M//C 105/00

AL	DE VINIVI/S 105/	Revised Mar.200	10
1.	COUNTRY	et Nam	
2.	NAME OF STUDY	e Study on Environmental Management for Ha Long Bay	
3.	SECTOR	Iministration / Environmental Problems 4. TYPE OF STUDY M/P	
5.	COUNTERPART AGENORIES OF DEVELOPME	Ministry of Science, Technology and Environment / People's Committee of Quang Ninh Province, the Socialist Republic of Viet Nam	
	PRESENT COUNTERPA		
6.	OBJECTIVES OF THE STUDY	formulate a comprehensive environmental management plan for environmental conservation of Ha Long Bay.	
7.	CONSULTANT(S)	ppon Koei Co., Ltd.	
8.	STUDY PERIOD	b.1998 ~ Nov.1999 21month(s) ~	
9.	SITE OR AREA	e bays that are designated for the World Heritage and its buffer area, and the hinterland areas that may affect the vironment of the bay. (Total area: 2,500km2)	
10.	MAJOR PROPOSED PR	ECT(S)	
1)]	Bach Dang wastewater tre Pilot project on rehabilitat	nent project	

- 3) Improvement of sanitation condition-Phase I
- 4) Rehabilitation of mangrove swamps
- 5) Environmental monitoring( water quality, environmental resources)
- 6) Establishment of Visitor Center

ASE VNM/S 105/99 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# Description:

Priority projects were selected among the proposed projects and programs in the proposed environmental management plan from viewpoints of urgency, effects and locations. Selected priority projects are shown below. Vietnamese government agreed to commence these projects as soon as possible.

- 1) Bach Dang Wastewater Treatment Plant Construction Project
- 2) Pilot Rehabilitation Project on Coal Mining Areas
- 3) Tourism Area sanitation Improvement Project(Phase I)
- 4) Mangrove Swamps Rehabilitation Project
- 5) Environmental Monitoring Program
- 6) Visitor Center Construction Project

The Visitor Center Construction Project has highest priority to commence among the priority projects in terms of importance of the environmental education and public awareness. The Visitor Center is planned to have functions of exhibition, research, and library on environmental conservation and management of Ha Long Bay. Vietnamese government requested grant assistance for the Visitor Center Construction Project from Japanese government. The project site is planned the coastal area of Hung Thang.

### (FY 2001 Domestic Survey)

The grant aid request on Construction of the Environment Monitoring and Information Center for Ha Long Bay has not been adopted yet. The Environment Management Plan provided by the Quang Ninh Province has been under the procedure to be approved by the government.

### 1. Visitor Center Construction

(FY 2001 Overseas Survey)

Project Name: Environment Information and Monitoring of Halong Bay.

Financial Source: Japan's ODA

Total Amount: JPY 619,300,000 (USD 5,630,000) USD 1=JPY 110

Contents: 1) Short term objective: Enhancing the environment management by compiling environment monitoring and analyzing program, implementing trial tests at tourist resorts and natural resources conservation. Enhancing the awareness by collecting environmental information in general and Halong Bay-Quangninh province in particular.

- 2) Medium and long-term objective: Sustainable development of Halong Bay and Quangninh.
- 2. Progress Situation (Subsequent studies, fund procurement, etc.)

(FY 2001 Overseas Survey)

Quangninh People's Committee submitted the Vietnamese Government project file in fiscal year 2000 and Ministry of Planning and Investment transferred the project file for Japan's ODA. People and leaders of Quangninh province and Halong Bay expect the project to be implemented at the earliest time.

# (FY 2002 Domestic Survey)

The Study on assisting water environment management is to be implemented by Global Environmental Centre Foundation

# (FY 2004 Domestic Survey)

No further progress after 2002. No progresses can be seen for the applied Grant Aid projects requests.

# (FY 2005 Domestic Survey)

No information to be specifically mentioned.

# (FY 2005 Overseas Survey)

Project related to the study has been implemented with own funds and private sector funds.

Project related to the study:

- Environment improvement
- 1. Waste water treatment project in marine product processing sector: 2004-2005 private fund (Quang Ninh Seafood JV)

Contents: Construction of Waste water treatment system with a capacity to process 150 square metres per day.

2. Construction of Waste water treatment system in Quang Ninh province hospitals: 2004-2005 own fund (provincial budget)

Contents: Construction of Waste water treatment system with a capacity to process 300 square metres per day

3. Improvement of dust pollution and inundation condition in residential area of Nam Cau Trang Coalmine Plant peripheral

Contents: Concretisation of roads, construction of drainage channels

- 4. Garbage collection in Ha Long Bay: 2005 own fund
- Contents: Collection of garbage at tourist sites and fishery villages
- 5. Coalmine waste water treatment: 2005 own fund

Contents: Construction of waste water treatment system with a capacity to process 1,200 square meters per day

- Environmental monitoring
- 1. ha Long Bay environmental monitoring project: 2005 own fund

Contents: Infrastructure preparation (office equipment), technical transfer, and training

2. Quang Ninh annual environment monitoring: 2005 own fund (provincial budget)

Contents: Environmental monitoring of entire Quang Ninh province

(M/P)

Jun.2000

Compiled

**ASE** VNM/S 106/99 Revised Mar.2008 1. COUNTRY Viet Nam Study on Telecommunication Development 2. NAME OF STUDY Communications & Broadca / Telecommunication TYPE OF STUDY M/P 3. SECTOR 5. Department General of Posts and Telecommunications (DGPT), Vietnam National Posts and Telecommunications(VNPT) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY 1) To formulate a Master Plan for the development of telecommunications in Vietnam up to the year 2010. 2) To pursue the technology transfer (including methodology, know-how for formulating the master plan) to the counterpart of Vietnam in the course of the Study. **OBJECTIVES OF THE** STUDY NTT International Corporation 7. CONSULTANT(S) Jul.1998 Mar.1999 8month(s) 8. STUDY PERIOD Aug.1999 Jun.1999 2month(s) Whole area in Vietnam 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) 1. Project No.1: North Province Project(20 provinces, 101,000 lines) 2. Project No.2: Mekong Delta Province Project(12 Provinces, 125,000 lines) 3. Project No.3: Central Province Project(12 Provinces, 92,000 lines) 4. Project No.4: Inter-Province Network Project (14 SDH OFC loops, 4 radio & SDH links) 5. Project No.5: Frequency Monitoring Project(8 locations including Yen Bai) 6. Project No.6: OPMC(Outside Plant Management Center) Project (Panoi) 7. Project No.7: VSAT for government emergency communications system(Nationwide)

ASE VNM/S 106/99 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

Subsequent Study:

(FY 2001 Overseas Survey)

F/S has being updated to increase previously designed numbers of 30,000 lines to 50,000 lines. As planned, the F/S is to be completed by the end of first quarter of 2002 (Mar. 2002) and the project implementation is to be completed by fourth quarter of 2002. The F/S has applied latest technologies to meet the current situation. Design stage is budgeted by French ODA non-refundable fund and implementation stage is budgeted by French ODA loan fund.

1. Northern Province Project

(FY 2001 Overseas Survey)

Finance: French ODA 2000 (10.3 mil. EUR for purchasing equipment)

Approval Date: 17th May., 2000

Contents: Expanding the capacity of switchboard system. Installing 50,000 new lines in 15 provinces: Ha Giang, Cao Bang, Long Son, Lao Cai, Lai Chau, Yen Bai, Tuyen Quang, Bai Kan, Hoa Hinh, bai Gaiang, Phu Tho, Vinh Phu.

2. Communication Networks Expansion Project for 9 provinces in Central Vietnam

(FY 2001 Domestic Survey)

The request on Yen Loan has not yet been submitted for the proposed project of this research, the "Communication Networks Expansion Project for 9 provinces in Central Vietnam". It depends on "Electric Communication Network Expansion Project for 10 Provinces in Central Vietnam", which is now on tender pre-evaluation. The delay of an implementation of the project has postponed a request for this project.

3. Submarine Cable Construction Plan

(FY 2001 Domestic Survey)

Yen loan has been requested

Related Project:

(FY 2000 Domestic Survey)

Central Vietnam Rural Telecommunications Network Expansion Project

At the same time of the completion of this project, "Central Vietnam Rural Telecommunications Network Expansion Project", a Yen Loan project, has been implemented as described below.

Finance: L/A Mar. 1998 11.3 bill. YEN

Contents of the project are to improve telecommunication facilities of rural networks. (77 switchboard facility, approx. 119,000 lines; WLL facilities, approx. 9,000 lines; subscriber line facilities, approx. 166,000 lines; optical fibre communication system, approx. 1,700km; micro-radio communication system, 3 blocks).

Status:

(FY 2001 Domestic Survey)

- 25th Dec. 2001, Placed switchboard package and fibre communication facilities package on tender pre-evaluation. Public announcement of the tender is planned on Mar. 2003.
- Other packages are waiting for an approval of pre-evaluation documents from Vietnam Gov. Tender pre-evaluation is planned to be publicly announced on Mar. 2002

# (FY 2001 Domestic Survey)

Vietnam has a strong interest in priority projects proposed in this study, which plans to request Yen Loan by considering the progress of implemented projects mentioned above and selecting candidates for the next Yen Loan from the priority projects.

(FY 2005 Overseas Survey)

Subsequent study: North-South submarine fibre optical cable construction project

Construction period: 2004-2008

Funding:

Funding party: Yen loan L/A concluded 31st March 2003 No. VN X-04

Amount: 19,947 million JPY (30 years)

Status:

Mine detection and disposal, cable run survey, and technical design

(M/P+F/S)

Jun.2000

Mar.2008

Compiled

Revised

1. COUNTRY Viet Nam The Study on Urban Drainage and Sewerage System in Ho Chi Minh City NAME OF STUDY / Urban Sanitation 3. SECTOR **Public Utilities** TYPE OF STUDY M/P+F/S People's Committee of Ho Chi Minh City, the Socialist Republic of Viet Nam COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY 1) To make a Master Plan on the urban drainage improvement and sewerage development with the target year of 2020. 2) To conduct a Feasibility Study of priority project selected from the Master Plan. OBJECTIVES OF THE STUDY Pacific Consultants International 7. CONSULTANT(S)

# 10. MAJOR PROPOSED PROJECT(S)

Jul.1998

(46ha)

M/P:

**ASE** 

VNM/S 210/99

# 1. Urban Drainage Improvement

8. STUDY PERIOD

9. SITE OR AREA

The study area is divided into 6 drainage zones(C,N,W,S,NE and SE zones). Each zone has different natural, social and living environmental conditions, such as topography, geology, land use, urbanization, urban drainage system, flood situation, etc. Therefore, to improve the drainage system, the canal improvement, natural retarding pond construction and setting up a law system for on-site detention pond construction are proposed for every each zone. Also, pumping drainage improvement is proposed to three low-lying areas situated on the fringe of inner city, Thanh Da area(15ha), Ben Me Coc(1) area(71ha), Ben Me Coc(2) area (46ha).

F/S: The area covers the central portion of Ho Chi Minh City with an area defined as Tau Hu, Ben Nghe -Doi, Te basin(about 3,065 ha) and also the isolated are of Thanh Da area(15ha), Ben Me Coc(1) area (71ha), Ben Me Coc(2) area

2. Sewerage Development

Sewerage development system is proposed for the area with population of more than 200 person/ha(190km2) in year 2020. Remaining area is covered by on-site sanitation system with population density of below 200 person/ha(446km2). Proposed sewerage development area is divided into 9 individual sewerage zones.

F/S:

Proposed features are summarized as follows.

- 1. Urban Drainage Improvement
- Canal Improvement(Total length: 13,380m Apr. 2003-Mar. 2005, Jul. 2006-Jun.2008)
   Ben Nghe Canal: 3,140m, Tau Hu Canal 9,030m, Ngang No.1-3 Canal 1,210m
- 2) Pump Drainage Improvement(Oct. 2001- Dec. 2003, Jul. 2006-Jun. 2007): Thanh Da area(15.4ha), Ben Me Coc(1)area (79.9ha), Ben Me Coc(2) area (46.0ha)
- 3) Existing combined sewer improvement: Additional 10,272m, Replace: 1,320m
- 2. Sewerage Development:
- 1) Interceptor sewer(Jul. 2002-Mar. 2005, Jul.2007-Mar.2010): Interceptor sewer 28,939m, Diversion Chamber 103units

Dec.1999 17month(s)

M/P: The urbanized are of about 650 km2 in Ho Chi Minh City

- 2) Intermediate Wastewater pumping station(Jan. 2003-Mar. 2005, Jan. 2009-Mar. 2010): Pump capacity: 13.3m3/min. 2 units, units
- 3) Conveyance sewer(Jul.2002- Mar.2005): 6,400m
- 4) Wastewater treatment plant(Oct. 2001- Dec.2005, Oct. 2006-Dec.2010): Inflow pump, Primary sedimentation basin, Aeration Tank, Secondary sedimentation basin, Disinfections tank, Gravity thickener, Dewatering, Composting plant

ASE VNM/S 210/99 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

(FY 2004 Overseas Survey)

Subsequent study:

Progress: Pre-qualification-Bidding-Construction

Bidder

Package A: Toa, Shimizu JV (Toa bid the lowest, though over the ceiling estimated by MOC)

Package B: Toa, Shimizu JV (Toa bid the lowest, though over the ceiling estimated by MOC)

Package C: Nishimatsu, Ebara, Shimizu JV

Package D Toa, Shimizu JV (Shimizu JV bid the lowest, though over the ceiling estimated by MOC)

Package E: Nishimatsu, Ebara, Shimizu JV

Date and period of the planned start of construction:

Package A: April 2005 Package B: April 2005 Package C: February 2005 Package D: January 2006 Package E: November 2004

Possibility:

Funds were secured, and bidders were selected.

Other new progress:

Package A: The Ministry of Construction (MOC) is revising the ceiling price, since the lowest bid is over the ceiling.

Package B: The Ministry of Construction (MOC) is revising the ceiling price, since the lowest bid is over the ceiling.

Package C: A construction contract was concluded between PMU and Nishimatsu, Ebara, Shimizu JV on 8 November 2004. Waiting for the concurrence of the construction contract by JBIC.

Package D: The Ministry of Construction (MOC) is revising the ceiling price, since the lowest bid is over the ceiling.

Package E: A construction contract was concluded between PMU and Nishimatsu, Ebara . Shimizu JV on 29 September 2004. The notice of Commencement was issued on 8 November 2004.

(FY 2005 Overseas Survey)

Project tendered: The Study on Urban Drainage and Sewage System in Ho Chi Minh City

Bidder:

Package A: Toa Package B: Toa

Package C: Nishimatsu, Ebara, Shimizu JV

Package D Toa, Shimizu (Shimizu bid the lowest, though over the ceiling)

Package E: Nishimatsu, Ebara, Shimizu JV

Construction period (planned): Package A: December 2005 Package B: December 2005

Package C: February 2005 Package D: July 2006

Package E: November 2004

Other progress:

Tender for package A and B have been concluded. Now both are being negotiated, and constructions are expected to commence from December 2005.

(M/P+F/S)

Compiled Jun.2000

ASE VNM/S		Revised Mar.2008
1. COUNTRY	Viet Nam	
2. NAME OF STUDY	Study on Grou	ndwater Development in the Northern Part
3. SECTOR	Social Infrastr	icture / Water Resources Development 4. TYPE OF STUDY M/P+F/S
COUNTERPART AGEN TIME OF DEVELOPMI	ICY AT THE	Center for Rural Water Supply and Environmental Sanitation (CERWASS), Ministry of Agricultuture and Rural Development
PRESENT COUNTERPA	ART AGENCY	
6. OBJECTIVES OF THE STUDY	2) To formulat	e groundwater potential in the 20 communes of the five northern provinces the the master plan(M/P) that the feasibility study(F/S) that the feasibility study(F/S) that the feasibility study(F/S)
7. CONSULTANT(S)	KOKUSAI KO	OGYO CO., LTD.
8. STUDY PERIOD	Aug.1998 ~	Feb.2000 18month(s)
9. SITE OR AREA		nunes of the Northern 5 Provinces unes of the Northern 5 Provinces
/capita/day population of 1- 6/S: Targeting the year 2000 of 154 l/capita/day, population	0 covering 20 c 49,700. Facilitie 2 covering prior tion of 138,000.	ommunes of the northern 5 provinces by house-connected piped water supply systems at a rate of 154 s are composed of water source, treatment system, and distribution and service pipelines tized urgent communes of the 5 northern provinces by house-connected piped water supply systems at a rate gical filtration basin, receiving well and distribution pipelines.

ASE VNM/S 211/99 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

# **Description:**

(FY 2000 Domenstic Survey)

After completion of the Study, Vietnam government requested Japan's grant aid for implementation of the priority project.

(FY 2001 Domenstic Survey)

JICA B/D is on going.

(FY 2001 Overseas Survey)

Project requested for Japan's grant aid:

Goundwater Development Project in the Rural Provinces of Northern Part of Vietnam.

Source: Japan's Grant Aid

Amount: 2 billion Yen (US\$ 13.7 million)

Contents:

Facilities construction: Water Supply facilities: 15 sets (Coposed of deep well, treatment system, distribution systems) Equipment Supply: Pipe, electric pumps, water meters etc. necessary for the above facilities: 15 sets. Drilling Rigs. The cost of operation and maintenance will be covered by users. O&M organization will collect water fee from the users.

### Finance:

(FY 2002 Domenstic Survey)(FY 2003 Overseas Survey)

4 Aug. 2002 E/N 8,670 mil. Yen (The Groundwater Development in Rural Part Northern Provinces I)

29Aug.2003 E/N 6,870 mil. Yen (The Groundwater Development in Rural Part Northern Provinces II)

### Construction:

(FY 2003 Overseas Survey)

-for the first stage

Consultantis DOCON. Contructor is Hazama Corp.

-for the second stage

Consultantis DOCON. Contructor is under tendering.

-Date and period of the planned Start of Construction

For the first stage Mar. 2003. For the second stage Mar. 2004.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

# (FY 2004 Overseas Survey)

1. The Project for the Groundwater Development in Rural Part of Northern Provinces: Phase 2

- Contents: Construction of 5 water supply facilities in 4 communities of Thai Nguyen
- Period: Mar. 2004 Mar. 2005
- Finance: Grant Aid (E/N concluded: 29th Jul. 2003), 687 mil. YEN
- 2. Construction of 3 water supply facilities in 4 communities of Thanh Hoa region
- Finance Grant Aid (E/N concluded: 12th Jun. 2004), 520 mil. YEN

# (FY 2005 Overseas Survey)

Subsequent study: The project for the groud water devlopment in rural parts of Northern provinces (Stage 3)

Implementation period: April 2005 - March 2006 Implementing body: P-CEWASS Thanh Hoa

Funding:

Funding party: Yen Grant Aid E/N concluded 16th July 2004

Amount: 502 million JPY

Contents: Construction of 3 water supply facilities in 4 communes in Thanh Hoa

Status: 83.7%

Technical cooperation:

OJT on O&M water supply facilities.

# STUDY SUMMARY SHEET (M/P)

		Compiled	May.2001
ASE	VNM/S 107/00	Revised	Mar.2008

1.	COUNTRY	Viet Nam					
2.	NAME OF STUDY	The Study on the National Transport Development Strategy in Vietnam					
3.	SECTOR	Transportation	/ (Tran	sportation in) General	4.	TYPE OF STUDY	M/P
5.	COUNTERPART AGENORIES OF DEVELOPME	CY AT THE		nent and Strategy Institute	(Ministry of	Transport)	
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	<ol> <li>To formulate the long term Development Strategy on national transport system to the year 2020.</li> <li>To formulate the national transport development Master Plan to the year 2010.</li> <li>To indentify and prioritize short term Projects ti the year 2005.</li> <li>To strengthen institutional capacity of relevant organizations</li> </ol>					
7.	CONSULTANT(S)	ALMEC Corpor Pacific Consulta	ration ants International				
8.	STUDY PERIOD	Jan.1999 ~	Jun.2000	17month(s)			
9.	SITE OR AREA	All transport mo	ode for the whole of	Vietnam			
10.	MAJOR PROPOSED PR	OJECT(S)					

- 1. Roads: Rihabilitation of roads and bridges
- 2. Railroads: Rehabilitation and small-scale improvement.
- 2. Ports and Ships: Improvement, expansion and development.4. Airports: Expansion and developmet.

ASE VNM/S 107/00 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

(FY 2001 Overseas Survey)

Based on the Vitranns' results, MOT formulated a transport strategy up to 2020 and a masterplan up to 2010, and submitted them to the Prime Mimister. Three meetings were held by MPI (Standing Member of Approval Committon) for approval and the Approval Committe submitted the meeting results to the Prime Minister on July 9, 2001. At present, the Prime Minister is reviewing them for approval.

(FY 2002 Domestic Survey)(FY 2003 Overseas Survey)

Ministry of Transportation (MOT), Gov. of Vietnam, has submitted the draft for action plan to the Presidential Office, based on the proposal made to VITRANSS for transportation development strategy till 2020 and master plan till 2010. Evaluation at the Committee has completed and is now waiting for a final approval from the President.

After the VITRANSS, MOT is continuing to conduct development study, such as "Port System Development Study in Southern Part of Vietnam", "The Study on Improvement Plan of Water Transportation in Inland Red River", "The Study on Ho-Chi-Minh City Transportation Plan", and "The Study on Status of Traffic Accident" (overseas D/S). In addition, study on transportation sector is conducted with Multinational Development Bank, which is in progress to actualise a project. Therefore, MOT acknowledges that the outcome of VITRANSS is being a basis of the national transportation development.

(FY 2005 Overseas Survey)

Subsequent project: My Thuan Bridge construction

Benefits:

Benefits: Impacts the socio-economic development in Mekong delta by providing important connection between Mekong delta and Hochiminh city, reducing transportation time.

Subsequent project: Thanh Tri bridge construction project (refer project No. VNM/S 303/98)

Funding:

Funding party: Yen Loan Amount: 400 million USD Implementation period: 2003-2006

Content: Consists from construction of Thanh Tri bridge and eastern part of Hanoi Ring road No. 3

Subsequent project: Cau-Gie-Ninh Binh-Thanh Hoa Expressway construction project

Implementation period: 2006 - 2012

Content: Construction of 62.4km of 4-6 lanes expressway sections from Cau Gie to Ning Binh and 80km of 4-lane expressway sections from Ning Binh to Thanh Hoa

Technical cooperation: Training: 8TDSI staffs

Dispatch of experts: 2 JICA long-term experts supported MOT and TDSI

(M/P)

Compiled May.2001

**ASE** VNM/S 118/00 Revised Mar.2008 1. COUNTRY Viet Nam Study on Environmental Improvement at Hanoi City in the Social Republic of Viet Nam 2. NAME OF STUDY / Environmental Problems 3. SECTOR Administration TYPE OF STUDY M/P 5. Hanoi People's Committee COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Preperation of environmental M/P for Hanoi City for the year 2020. Preparation of Pre-F/S for the field of solid waste management. OBJECTIVES OF THE 6. STUDY Nippon Koei Co., Ltd. 7. CONSULTANT(S) EX CORPORATION Urban & Environment Planning, Research and Consulting Jul.1998 25month(s) Aug.2000 8. STUDY PERIOD Whole Hanoi City consisting of 7 urban districts and 5 surburban districts (927.5km2) 9. SITE OR AREA

# 10. MAJOR PROPOSED PROJECT(S)

Budgets for the prioritized projects: 514,487 thousand USD (including 45,800 thousand USD for the waste related pre-F/S)

Various counter-measures are recommended to be implemented with short, middle and long-term timeframes. Among all, the following projects are recommended to be placed high priority so that they should be completed by the year 2005 or by 2010 at the latest.

1.Integrated Environmental Management (Non-Structural)

Establishment and Reinforecement of the Monitoring System, Establishment of Environmental Coordination Committee and Revising Environmental Master Plan Procedure, Reinforcement of Hanoi DOSTE, Strengthening of Environmental Management at District Level 2. Sanitary and Clean Water (Structural)

To Lich Drainage, West Lake Water Quality Improvement, 14 City Lakes in Old City Center, Public Sewerage for Old City Center, Septage Collection and Disposal

3.Clean City

(Structural) Improvement Collection of Solid Waste (Non-Structural) Shift of SWM Authority to Districts and Privatization of SWM services 4.Diversification of Financial Facility (Non-Structural)

Establishment of Environmental Fund

Among those prioritized projects mentioned above, 6 structural projects are proposed to be completed between 2005 and 2010.

Also, as for the waste project (landfill construction and transfer system), the major specifications are as follows;

Nam Son Landfill:

Method: Sanitary landfill, Capacity: About 10.85 million tons, Operation: from 2004 to the beginning of 2018

Dong Ngac Transfer Station Site:

Area: 6.0ha, Capacity of transfer system: 1,600 ton/day (as of the start of operation in 2004),

Heavy duty vehicle: large-sized damp truck: total weight: 25 tons, loading capacity: 26 m3, 44 vehicles.

ASE VNM/S 118/00 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

(FY 2001 Domestic Survey)

Since the Hanoi municipality made a request for assistance for solid waste landfill site, construction of solid waste transfer stations and grant of solid waste transportation vehicle were made to Japanese Government 1. Preliminary study team was dispatched in September 2001. As a result, solid waste transportation vehicle will be granted to Hanoi city. The D/S for the grant is going to be started in December 2001.

(FY 2002 Domestic Survey)

The concerned parties presented a request of a Grant Aid for Phase 2 project (construction of transfer station), when visiting Japan for a tender, formal request is yet to be made. There are possibilities of a request for Phase 2 construction to be a Grant Aid or a Yen Loan.

Subsequent Study: B/D 2001/Dec-2002/Jul

Subsequent Project: "Solid Waste Management Equipment Preparation Plan for Hanoi City"

Finance

896 million JPY Loan E/N concluded on September 09, 2002

Implementation period: 2002-2003/Jul

Description: Procurement of garbage collection vehicles (large-, medium-, and small-sized) as well as equipment for workshop and environment monitoring

### Technical Cooperation:

1) JICA seminar: 5 personnel, 2002/Oct

2) Grant Aid Counterpart Training: 1 personnel, 2002/Oct-Nov 2

(FY 2003 Overseas Survey)

Hanoi People's Committee, through MARD, has requested JICA to implement phase 2 of the project, which is now waiting for a reply.

(FY 2004 Domestic Survey)

No information to be specifically mentioned. 3

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P+F/S)

	(M/P+F/S)	Compiled	Jul.2001
ASE VNM/A	203/00	Revised	Mar.2008
1. COUNTRY	Viet Nam		
2. NAME OF STUDY	The Study on Integrated Agricultural Development Plan in the Dong Thap Muoi Area		

2.	NAME OF STUDY		<i>c c</i>			J	•			
3.	SECTOR	Agriculture	/ (Agriculture in) General				4.	TYPE OF STU	DΥ	M/P+F/S
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Ministry of Agriculture and Rural Development Sub-Institute of Water Resource Planning(SIWRP), National Institute for Agricultural Planning and Protection(NIAPP)							
	PRESENT COUNTERPA									
6.	1) To formulate a M/P for Agricultural Development Plan in the Dong Thap Muoi area which includes as followings, (1) Inundation mitigation, (2) Improvement of storage, processing and marketing system of agricultural products, (3)Improvement of Irrigation and drainage system.  2) To conduct a F/S for the priority projects/areas selected from the M/P.					S				

Taiyo Consultants Co., Ltd. Pacific Consultants International

8. STUDY PERIOD

7. CONSULTANT(S)

Mar.1999 Oct.2000 19month(s)

Dong Thap Province(1 town, 6 Districts), Tien Giand Province(2 Districts)

9. SITE OR AREA

# 10. MAJOR PROPOSED PROJECT(S)

Master Plan includes 25 projects.

- 1) Agricultural Infrastructure: Flood Control
- 2) Forestry Management: Concentrated Plantation of National Forest
- 3) Environmental Conservation: Monitoring of Water Quality etc.,

1) Small Dike Improvement Plan

In this plan, the mitigation of inundation damage, stabilization of agricultural production and increasing formers income are expected through the improvement of small dike system.

2) Rice Production/Marketing Improvement Project

Project aims at improvement of nice quality though which increase formers income and support increasing job opportunities in the related sectors. The project consist of following 3 sub projects.

- (1) High Quality Seed Production/Supply Project
- (2) Model Cooperation Project
- (3) Improvement Project of Training/Extension System

ASE VNM/A 203/00 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

(FY 2001 Domestic Survey)

The request for grant aid has been made to implement the project at the model development site of 2,000ha.

### (FY 2001 Overseas Survey)

A request for Japan's grant aid has been submitted to implement the proposed project.

The situation of Dong Thap Muoi Area is still severe due to the yearly flood and inundation in which many residents were killed and lost their assets. Therefore, the government as well as the regional government and the residents strongly expect the realization of the proposed project. The implementation of the project will contribute significantly to improve the lifestyle of the area and to maitain a good relationship between Vietnam and Japan.

### (FY 2003 Overseas Survey)

Request for a grant aid assistance has not been approved yet.

# (FY 2004 Domestic Survey)

Although, a request for the Grant Aid has been submitted, it has not been implemted.

# (FY 2005 Domestic Survey)

No information to be specifically mentioned.

### (FY 2005 Overseas Survey)

All components of the proposed project were accepted by Vietnamese authorities. However, those projects were not implemented due to lack of financial resources. Vietnamese side has applied for a grant aid to GOJ to implement the proposed project in the F/S from 2001, though the request was not accepted.

# Subsequent Study (Project)

- 1. Planning embankment system for early flood control
- 2. Detail planning for flood control in the Plain of Reds
- 3. Implementation of a permanent waste quality monitoring network in the Dong Thap Muoi area
- 4. Improving rice quality and marketing capacity

The Vietnamese government have conducted projects to realise the proposed projects. These projects are; 1)60 inhabitants risen-bed area (approximately 100-300households each) has been built in flood prone area of Coo Long Delta, which was the M/P target area, by the welfare program, 2) 150,000 ha of agricultural area has been transferred to higher benefit model, 3) 240km of 3provincial roads are upgraded, in which 128km belongs to M/P area (all bridges are temporary), 4) 224km of embankment is upgraded with 66million square metres of land, and 5) On-farm model has been adopted for changing agricultural schemes, such as shrimp with rice and fish with potato.

(D/D)

			(D/D)	Compiled	May.2001
ASE VN	M/S 40	04/00		Revised	Mar.2008
	1.				

1.	COUNTRY	Viet Nam								
2	NAME OF STUDY	The Detailed De	esign of the Red R	iver Bridge (Th	nanh Tri Bridge) Cons	structio	on Project in	n the Soc	ialist Rep	ublic of Viet
4.	NAME OF STUDY	Nam								
3.	SECTOR	Transportation	ransportation / Road 4. TYPE OF STUDY D/D							
5.	COUNTERPART AGEN TIME OF DEVELOPME		Ministry of Trans	sport						
	PRESENT COUNTERPA									
6.	-To carry out necessary engineering and environmental surveys, to complete a detailed design and to prepare draft tender documents of the Project.  - To construct the Red River Bridge (Thanh Tri Bridge) and Southern Section of Ring Road No.3 in Hanoi (approximately 13km).									
7.	CONSULTANT(S)	Pacific Consulta	ants International							
8.	STUDY PERIOD	Apr.1999 ~	Mar.2000	11month(s)						
9.	SITE OR AREA	Southern area of	outhern area of Hanoi City							
10	MA IOR PROPOSED PR	OIECT(S)		-					-	

The results of the F/S indicate that the Project is technically sound and economically feasible. Taking into account the direct and enormous indirect benefits to regional development other than the quantative savings in travel costs, the Project should be implemented at the earliest opportunity. Based on the above recommendation of the F/S, the D/D was conducted.

This project (approximately 13km) consists of the construction of the Red River Bridge (Thanh Tri Bridge) and Southern Section of Ring Road No.3 in Hanoi which is a toll road.

The Project was divided into 4 packages as follows:

Package 1: Red River Bridge 3.2km Bridge (6-lanes)
Package 2: Gia Lam Section 3.4km Toll Road (4-lane) Package 3: Thanh Tri Section 6.6km Toll Road (4-lanes) Package 4: Infrastructure in Resettlement area

The structure consists of bridges, road structures, and embankments including 5 interchanges.

ASE VNM/S 404/00 D/D

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Background of the Study:

(FY 2001 Domestic Survey)

According to the request to implement the Project from the Government of Vietnam, JICA has conducted the following studies:

- The Study on Traffic System in Northern Area (1994) - The Master Plan of Urban Transport for Hanoi City (1996) - The Feasibility Study on Thanh Tri Bridge and Southern Section of Hanoi Ring Road No.3 in Hanoi (1998) - The Detailed Design of the Red River Bridge (Thanh Tri Bridge) Construction Project (2000). Currently Hanoi City does not have enough capacity to absorb the increasing traffic volume flowing into the city. Also, it is concerned that the industrial areas developing in the suburbs will cause serious traffic congestion in the city in the near future. Therefore, the D/D of the ring road rehabilitation including new bidge construction was implemented in the Study.

#### Finance:

(FY 2001 Domestic Survey)

While conducting D/D, the implementation plan was coordinated between both the governments of Japan and Vietnam.

JBIC gave a pledge on the Japanese ODA loans for the Project. The Loan Agreement for the Project was concluded for a part of the total project cost. ("Red River Bridge Constructuin Project I" 10,000 mil.yen)

(FY 2003 Overseas Survey)

29. Marth 2000 L/A 10,000 mil.yen "Red River Bridge Constructuin Project I"

29. Marth 2002 L/A 14,863 mil.yen "Red River Bridge Constructuin Project II"

#### Construction:

(FY 2001 Domestic Survey)

The Consultants were selected for the implementation stage of the Project in Dec. 2000. The review of the D/D and the preparation of Tender Documents were conducted by the Consultants between Jan. and May, 2001. Continuously, the PQ process for package 1 has been proceeding now.

The schedule from now shall enter the Tender Stage after the selection of the applicants in the PQ process.

It is forecasted in the current situation that the construction may start from the middle of 2002.

(FY 2003 Overseasc Survey)

Selection of Supervision Consultant: Consulting Services Contract was signed on 26 August 2002 between PMU My Thaun and the JV Nippon Koei Co., Ltd.

ChodaiCo.,Ltd. TEDI and TEDIS.

Review Detailed Design Work: is now under way.

(FY 2003 Domestic Survey)(FY 2003 Overseasc Survey)

Conditions of construction progress:

PK1: November 28, 2002 - 72 months (as of end of September: 11.62%)

PK2: October 2003 - 55 months

PK3: Not yet started (15 months)

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey) (FY 2005 Overseas Survey)

Subsequent Study: Red River Bridge (Thanh Tri Bridge) Construction Project

Funding:

Funding party: Japanese government Yen Loans

Loan Agreement (I) No. VN VII-4 dated 29 March 2000, Loan Agreement (II) No. VN LX-5 dated 29 March 2002, Loan Agreement (III) No. VN XI-5 dated 31 March 2004

Management/operational body after construction: Vietnam Road Administration (under jurisdiction of the Ministry of Transport)

Description:

- Thanh Tri Bridge (3km bridge, paving, facilities, shore protection, riverbed protection), - Installed roads (bridge, interchange, risen bed, vulnerability measures, paving, facilities), - Construction of resettlement location

PK1: Thanh Tri Bridge PK2: Gia Lam Section PK3: Thanh Tri Section PK3 A: Extension of Phap Van Viaduct PK4: Resettlement Site PK6: Second Phu Dong Bridge

Design and construction period:

PK1: 2002/Nov/28-2006/Sep/30 PK2: 2005/Mar28-2008/Mar/27 PK3: 2005/Mar/24-2008/Mar/23

Progress:

PK1: 76.6% PK2: 3.5% PK3: 7.5% PK3A: Designing is in progress PK6: Designing is in progress

Contract of the Thanh Tri Bridge (PK1) is till end of November 2006, though it is planning to complete the construction till the end August 2006 according to a request made to shorten construction period.

Part of site acquisition for the Thanh Tri Bridge road (PK3) has not been completed, which may affect progress of the PK3.

Two additional package has been approved, which are now under D/D (as noted below). Tender is planned around next autumn.

Technical Cooperation:

Seminars: 1) Seminars on new technology, 2) Monthly technical discussion with local technicians.

Others:

Subsequent studies: 1) Feasibility Study on PK6, 2) Extension survey on PK3A

**(D/D)** 

ASE VNM/S 405/00 Compiled May.2001
Revised Mar.2008

1.	COUNTRY	Viet Nam										
2.	NAME OF STUDY	The Detailed De	esign of the Can	Tho Bridge Co	onstruction Pro	oject in the S	Socia	llist Rep	ublic of V	iet Na	am	
3.	SECTOR	Transportation	/ I	Road			4.	TYPE (	F STUDY	' D/I	D	
5.	COUNTERPART AGEN TIME OF DEVELOPME	CY AT THE	Ministry of Tran		list Republic	of Viet Nam	l		72 5			
	PRESENT COUNTERPA											
6.	OBJECTIVES OF THE STUDY		ecessary engineer. To pursue techno								I draft tender document e of the Study.	ts
7.	CONSULTANT(S)	Nippon Koei Co	o., Ltd.									
8.	STUDY PERIOD	Mar.1999 ~	Nov.2000	20month(s)								
	SITE OR AREA	is planned to be		River basin ir	n the Can Tho	in the Lowe	er Mo	ekong D	elta and t	ne roa	ad on which the bridge	
10.	MAJOR PROPOSED PR	OJECT(S)										

- 1) Project Length 15,850m (Feasibility: FIRR 5.6~11.7%)
- 2) Bridge Feature

Total Bridge Length 2,750m, Main Bridge Length 1,090m, Bridge Width 23.1m

3) Approach Roads

Total Length 13,100m, Vinh Long Side 5,410m, Can Tho Side 7,690m

4) Service Area: 2 locations

5) Toll Gate and Management Office: 1 each

Construction Cost

Package 1 (Local Cost: 17,547,000 USD, Foreign Cost: 8,339,000 USD) Package 2 (Local Cost: 63,202,000 USD, Foreign Cost: 144,164 USD) Package 3 (Local Cost: 23,903,000 USD, Foreign Cost: 8,774 USD) Package 4 & 5 (Local Cost: 2,130,000 USD, Foreign Cost: 0) ASE VNM/S 405/00 D/D

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Finance:

(FY 2001 Domestic Survey)(FY 2002 Domestic Survey)

30th March, 2000 L/A 24.847 billion YEN "Cuu Long (Can Tho) Bridge Construction Project"

- Consultant selection in progress (D/D review and C/S)

Construction:

(FY 2003 Domestic Survey)

On tender

(FY 2004 Overseas Survey)

2004/Apr- 50 months

Purchase of site has nearly completed.

Consulting service has been concluded with Nihon Koei and Chodai on 22nd August, 2002

(FY 2004 Domestic Survey)

1. Subsequent studies: Pre-construction Stag, Construction Stage

Among 3 packages, 1 package is under construction and 2 packages are under construction negotiation.

- 2. Finance: Yen Loan
- 1) Special Yen Loan (L/A No.VN VIII-7)
- 2) General Yen Loan (L/A No.VN VIII-6)
- 3) L/A conclusion data: both on 30th March, 2001
- 4) Amount: Special Yen Loan 24.847 billion YEN, General Yen Loan 8.393 billion YEN
- 5) Content: Among 3 packages, the main bridge and bridge installation block (package 2) is by Special Yen Loan. The road block, which will be connected to both sides of the main bridge (package 1 and 3) is by general Yen Loan.
- 6) Tender status
  - Package 1: 3 Vietnamese JV, 2 Chinese entity

Construction Start Date: Under bid evaluation, as of 2004. Planned to be started in mid December, 2004

- Package 2: Taisei, Kashima, Shinnittetsu, and JO

Construction Start Date: 18th October, 2004, Notice of Proceed was delivered and has started.

- Package 3: 2 Chinese entity

Construction Start Date: Bid Evaluation/contract Negotiation has been conducted in November and December, 2004 and is assumed to start around January, 2005.

#### (FY 2004 Overseas Survey)

Presently in construction observation stage.

- 1. Finance:
- Yen Loan: L/A 30th March, 2001 L/A No. VNVIII-6 (8.393 billion YEN) L/A No. VNVIII-7 (24.847 billion YEN)
- Counterpart fund from Vietnamese Gov.: 3.766 billion YEN
- 2. Constructor
- 1) Construction Package 1: TLC+CIENCO6+CIENCO8 Collaboration Project: Vietnam
- $2) \ Construction \ Package \ 2: \ Taisei+Kashima+Shinnittetsu \ Collaboration \ Project: \ Japan$
- 3) Construction Package 3: CSCEC: China
- 3. Construction Period
- 1) Construction Package 1: Started from February 2005, 42 months period
- 2) Construction Package 2: Started from September 2004, 50 months period
- 3) Construction Package 3: Started from February 2005, 47 months period

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Oct.2002

AS	SE VNM/S 2	208/01			,					Revised	Mar.20
1.	COUNTRY	Viet Nam									
2.	NAME OF STUDY	Study on Sanita	tudy on Sanitation Improvement Plan for Haiphong City								
3.	SECTOR	Public Utilities		/ Urban Sani	tation		4.	TYPE OF	STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME		Haiphong Pe	eople's Comn	nittee (HPCC)						
	PRESENT COUNTERPA	ART AGENCY									
6.	OBJECTIVES OF THE STUDY										
7.	CONSULTANT(S)	Nippon Koei Co EX CORPORA		& Environme	ent Planning, Reso	earch and C	Consu	ılting			
8.	STUDY PERIOD	Mar.2000 ~	Jun.200	l 15month	(s)						
9.	M/P: 1. Water supply, 2. drainage, 3. sewerage, 4. lake, 5. septic tank, 6. solid waste management in the core areas in Haiphong City F/S: Priotized projects in core areas in Haiphon City; 1. drainage, 2. sewerage, 3. solid waste management  SITE OR AREA										
10.	MAJOR PROPOSED PR	OJECT(S)									
M/	P		=								

M/P

Target year: 2020, target area: 20,900ha in core areas in Haiphong City

- 1. water supply: area 19,500ha, population 794,000, supply amount 197,400m3/day
- 2. drainage: area 5,241ha, population 681,000, length of drainage pipe 204,6km
- 3. sewerage: service area 11,861ha, population 723,000, sewerage treatment plant 7 sites
- 4. lake: dredging 5 lakes (32ha), drainage pipe 2-6km
- 5. septic tank: installation works
- $6. \ solid \ waste \ manegement: polulation \ 859,400, \ quantity \ collected \ 1,441t/day, \ disposal \ site \ 52.7 \ ha$

F/S

- 1. drainage (target year 2010): area 1,103 ha, population 240,000, length of the targeted drainage channel for rehabilitation 10km
- 2. sewerage (target year 2010): area 1,103 ha, population 240,000, quantity treated 36,000 m3/day
- 3. solid waste management (target year 2005): population 608,000, quantity collected 75t/day, disposal site 32.7ha

ASE VNM/S 208/01 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2002 Domestic Survey)

Though the government intends to implement some of urban drainage system project with the fund from the World Bank, they are preparing to request the Yen Loan for the rest of the project.

(FY 2003 Domestic and Overseas Survey)

In June 2003, the Haiphong People's Committee requested MPI for request of yen loan with a long list. Since the Haiphong City Infrastructure Improvement (a part of the city drainage project proposed in this study) is funded by IDA started in August 2003, there is a possibility that the construction of sewage treatment plants is included as the target of JBIC loan.

(FY 2004 Domestic Survey) Newly requesting for a Yen loan. Requested date: September, 2004

In October 2004, appraisal study was conducted by JBIC.

(FY 2004 Overseas Survey)

Implemented project: Drainage and waste disposal project for Haiphong City, Phase I

Implementing period: 2004-2010

Maintenance and operational body: Haiphong UREN Co. SAD Co.

Objectives: To prepare a comprehensives environmental management plan for efficient and effective management skills.

Funding:

Funding party: Yen loan L/A concluded 2005/3/31 (No. VNXII-4)

Amount: JPY 1,517 million

Status: After the completion of JICA study in July 2001, in the end of 2003, and in early 2004, Haiphong City has appointed a consultant to conduct pre-F/S, F/S, EIA, resettlement plan and preparation of documents for JBIC loan procedures, which is planned to be signed in March 2005.

City Alliance considered funding USD 250,000 grant for technical assistance in solid waste management and treatment, as well as dispatching an audit team to introduce or promote capacity building of solid waste recovery, management, transport, treatment and landfill operation.

#### (FY 2005 Overseas Survey)

Procedures for approval is in progress according to the Vietnamese Law. JBIC has supported and supplied a guidance to Haiphong city to request a grant from the Cities Alliance (C/A), which has submitted a request to C/A, JBIC, and UNEP till 11/2005. As a result, C/A, UNEP, and Haiphong City will procure the amount below;

C/A: USD 639,000 UNEP: USD 54,000 Haiphong City: USD 174,000

#### (FY 2006 Domestic and Overseas Survey)

Implemented project: "Sanitation Improvement Plan for Haiphong City"

Funding:

Funding party: Yen loan (L/A: March 31, 2003)

Amount: JPY 1,517 million

Implementing body: Haiphong Sanitation and Environment Improvement Project Phase I

Implementing period: 2009-2013

Objective: Improve living environment in Haiphong City by water quality improvement, flood prevention, and solid waste management.

Contents: The project consists of management of sewage water, drainage water, and solid waste.

Progress:

Sewage water:

Bidding documents were approved by JBIC in September 2006.

Selecting consultants for detailed design.

Drainage water:

Bidding documents were approved by JBIC in September 2006.

Selecting consultants for detailed design

#### (FY 2007 Domestic Survey)

The Haiphong City Council has supported preparation of D/D and tender for the Haiphong Sanitation and Environment Improvement Project (2007.6-2009.2)

(M/P+F/S)

Compiled Oct.2002

AS	SE VNM/S 2	09/01	,			Revised	Mar.2008
1.	COUNTRY	Viet Nam					
2.	NAME OF STUDY	The Study on Tourism Dev	relopment in the Central of Social Republic	of Vi	ietnam		
3.	SECTOR	Γourism	/ (Tourism in) General	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME	Y AT THE	Vational Administration of Tourism				
	PRESENT COUNTERPA	RT AGENCY					
6.	OBJECTIVES OF THE STUDY	database for tourism develo	rism development for 11 provinces in Vietnopment in the target area and for conservation. Fasten economic development in the a	ion of	cultural heritage a	nd management an	ıd
7.	CONSULTANT(S)	Pacific Consultants Interna ALMEC Corporation	tional				
8.	STUDY PERIOD	Dec.2000 ~ Feb.20	002 14month(s)				
		M/P: I 1 Provinces (Quang Binh Γhuan, Binh Thuan)	Quang Tri, Hue, Danang, Quang Nam, Qu	uang N	Ngai, Binh Dinh, P	hu Yen, Khanh Ho	oa, Ninh

#### 10. MAJOR PROPOSED PROJECT(S)

Major Proposed Project(s):

9. SITE OR AREA

- 1) Establishment of Vietnam Tourism Provision Bureau (VTPB), Establishment of overseas offices of VTPB in major sites,
- 2) Establishment of Tourist Information Center (TIC) under tourism department of each province., Danang Tourism Academy,
- 3) Nha Trang Tourism Academy, Improvement of airport terminals and navigation assistance system in Danang, Hue, Nha Trang,
- 4) Development of facilities for cruises at Danang Port, Preparation of roadside stations by Peoples Committee in each province,
- 5) Development of accommodation in Langoco Beach in Hue, Resort development in Cua Dai Beach, Binh Thuan Province,
- 6) Products improvement of traditional crafts and craft center to demonstrate production process,
- 7) Phong Nha Ke Bang National Park, Establishment of information network of historical museums,
- 8) Development of visitor centers in Hue, Hoi An, Nha Trang,
- 9) Railways between Hue and Danang from the perspective of development of tourist attractions, Nha Trang Marina,
- 10) Cycling roads along seaside, Flood disaster measures presented as a prioritized project in Hoi An,
- 11) Water pollution control in cities of Danang, Hue, Hoi An, and Nha Trang,
- 12) Urgent implementation of waste disposal measurement in Danang, Hue, Hoi An, and Nha Trang,
- 13) Coastal area management to control land use in coastal areas

ASE VNM/S 209/01 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2002 Domestic Survey)

Vietnam Tourism Provision Bureau (VTPB) is established.

Establishment of overseas offices of VTPB in major site is in its planning phase.

Tourism Information Centre is established under tourism department in each province

Grant Aid for establishing Danang Tourism Academy is being requested.

Improvements of airport terminal and navigation assistance system in Danang, Hue, and Nha Trang are in implementation phase.

Roadside station by Peoples Committee in each province is in preparation phase.

Development of accommodation in Langoco beach of Hue is in planning phase.

Resort development in Cua Dai Beach, Binh Thuan province is being requested for an adoption in the National Plan

Products improvement of traditional crafts and craft center to demonstrate production process is in progress of JICA study.

Flood disaster measures presented as a prioritized project in Hoi An is under JICA P/Ss.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2006 Domestic Survey)

No information mentioned specifically

(FY 2006 Overseas Survey)

The study result was used as documents in VNAT and for making and revising a master plan. Also, VNAT was used for making and implementing the "Project on Orientation and Solution to Promote Tourism in the Central Area-Highland."

This study should be continued, but a master plan and a detailed investment project should be formulated. It is necessary to implement tourism development based on a master plan and to support promotion of investment for the province in order to maximize the potential of the area effectively and continuously.

**(D/D)** 

Compiled Oct.2002

AS	SE VNM/S 4	101/01		Revised Mar.2008
1.	COUNTRY	Viet Nam		
2.	NAME OF STUDY		gn Study on Ho Chi Ming City Water Environment Im	nprovement Project
	SECTOR	Public Utilities	/ Sewerage	4. TYPE OF STUDY D/D
5.			People's Committee of Ho Chi Minh City	
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY		a survey for Water Environment Improvement for Tau and ent improvement project in Ho Chi Minh City with Ye	
7.	CONSULTANT(S)	Pacific Consulta	ants International	
8.	STUDY PERIOD	Mar.2000 ~	Jun.2001 15month(s)	
9.	SITE OR AREA		o Chi Minh City with the area of 3,065.4 ha, defined as of Thanh Da of 15.4 ha, Ben Me Coc (1) of 70.9 ha a	
	MAJOR PROPOSED PR			
2) I 3) I (Lo 4) I 5) I	Package B: Pomp drainag Package C: Interceptor se ocal Cost USD 15.1 M, Fo Package D: Conveyance s Package E: Wastewater tr	ge improvement ( wer construction oreign Cost USD sewer construction reatment plant con	provement (Local Cost USD 48.8 M, Foreign Cost USD Local Cost USD 15.2 M, Foreign Cost USD 2.9 M), intermediate wastewater pumping station construction 23.8 M) on, existing combined sewer improvement (Local Cost Instruction (Local Cost USD 53.3 M, Foreign Cost USD t USD 4.7 M, Foreign Cost USD 13.2 M)	n and procurement of sewer cleaning equipment  12.8 MUS\$, Foreign Cost USD 4.8 M)

**ASE** VNM/S 401/01 D/D

Completed or In Progress Promoting Completed PRESENT STATUS Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled

#### Description:

Funding:

(FY 2002 Domestic Survey)

March 30, 2001, L/A JPY 8.2 billion

The Ministry of Construction of Viet Nam conducted the evaluation of the final report submitted by JICA in June 2001 and completed the evaluation in October 2002. Subsequently, PMU started the procedure for obtaining an approval of the detailed design from People's Committee of Ho Chi Minh City.

Meanwhile, the Government of Viet Nam and Japan Bank International Cooperation have signed the Loan Agreement (L/A) for the Phase I project on March 30, 2001. PMU and People's Committee of Ho Chi Minh City selected Pacific Consultants International as the consultant for construction supervision service in May 2002.

#### Construction:

(FY 2002 Domestic Survey)

PCI started a review work of the JICA D/D as the 1st stage of the service in June 2002 and completed the work on October 2002

Procedure for obtaining an approval of bidding documents by JBIC was stared and the pre-qualification document for Package E (Wastewater Treatment Plant Construction) was approved by JBIC in November 2002 and was officially announced to the public. - The bid tendering for the construction is scheduled to commence in 2003.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)(FY 2005 Overseas Survey)(FY 2006 Domestic Survey)

Subsequent study: Ho Chi Minh city water environment improvement project

Funding party: Yen Loan (L/A: March 30, 2001, March 31, 2003)

Amount: JPY 23,994 million

Content:

Construction works are divided into 5 packages below:

Package A: Tau Hu-Ben Nghe Water Channel Rehabilitation

Package B: Water pump drainage improvement

Package C: Construction of intercepting sewer and pump station, and procurement of underground water pipe cleaning equipments

Package D: Construction of distribution pipeline and improvement of combined pipeline.

Package E: Construction of water sewage treatment site.

Implementation Body: VIWAE

Implementing period:

Package A: 2005/Dec

Package B: 2005/Dec

Package C: 2005/Feb Package D: 2006/Jul

Package E: 2004/Nov

#### Tender:

Package A: Toa

Package B: Toa

Package C: Nishimatsu Construction Co., Ebara, Shimizu Construction JV

Package D: Toa, Shimizu JV (Shimizu JV has priced the lowest, though exceeding maximum price set by MOC)

Package E: Nishimatsu, Ebara, Shimizu JV

(FY 2005 Domestic and Overseas Survey) The result of tender for Package A and B and are in negotiation. Construction planned for Dec 2005.

(FY 2006 Domestic Survey) Tender is completed for other packages.

#### (FY 2006 Overseas Survey) (FY 2007 Domestic Survey)

Implementing project: Ho Chi Minh city water environment improvement project Phase II

Implementing period: June 2009

Funding:

Funding party: Yen Loan (L/A: March 29, 2006)

Amount: JPY 1,557 million

Progress: Under bidding(FY 2006 Overseas Survey)

#### (FY 2007 Domestic Survey)

Subsequent study: Ho Chi Minh city water environment improvement project Phase II

Tender:

Package C: Nishimatsu Construction Co., Ebara, Shimizu Construction JV

Package E: Nishimatsu Construction Co., Ebara, Shimizu Construction JV

(M/P+F/S)

Compiled Sep.2003

A	SE VNM/A	202/02				Revised	Mar.2008
1.	COUNTRY	Viet Nam					
2	NAME OF STUDY	The Feasibility S	Study on Forest Management Plan in Central	Highland in V	/iet Nam		
2.	NAME OF STUDY						
3.	SECTOR	Forestry	/ Forestry & Forest Conservation	<b>1 4.</b>	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME						
	PRESENT COUNTERPA						
6.	OBJECTIVES OF THE STUDY	wild life can be standards of the	ace has a large potential in forestry, where the seen is the area, where number of large mamr large number of minorities is required in this plan for sustainable forest operation. Thus, the	nals exists. O area. Even m	n the other hand, im ore, organization in	provement of living charge of the ma	ing
7.	CONSULTANT(S)	Japan Overseas PASCO Corpora	Forestry Consultants Association tion				
8.	STUDY PERIOD	Jan.2000 ~	Dec.2002 35month(s)				
		Kon Plong Distr	ict in Kon Tum Province (apx. 23,000ha)				
9.	SITE OR AREA						
Fo 1. 2. 3. Fo 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	rest Management Master Precondition of formulating An outline of study target Principle of forest management Principle of forest management Principle of forest management Goals of forest management Selecting model area (from Current situation of mode Model forest management Project plan Project evaluation Evaluation based on ITTC Evaluation and recomment	Plan in Kon Ploning master plan. area ement (master plan. Model Area ent plan in the area administrate t plan (Manra FE) D standard	n) strated by Manra Forestry Corporation)				

ASE VNM/A 202/02 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2003 Domestic Survey)

Utilisation status:

According to the Department of Agriculture and Rural Development and the Department of Forestry Development of Kon Tum province, amount of tree to be cut down by model Forestry Corporation (Manra Forestry Corporation) has been reduced due to importance placed on policies for natural forestry reservation by the central government, which felling are implemented in accordance with the forest management plan prepared in D/S.

Although community assistance plan, which is one of the major components of the study, has not been implemented, it is planned to be implemented from 2004 in "Feasibility Study on Forest Management Plan in Central Highland" of the JICA technical cooperation project.

(FY 2004 Domestic Survey)

Progresses are unknown.

(FY 2004 Overseas Survey)

1. Technical Cooperation: dispatch of experts

4th April - 31st May 2004: short-tem experts to be dispatched for PD and ODM preparation

Other progress

Based on the proposal made in the study, "Forest Management Plan Implementation Project" will be implemented.

(FY 2005 Domestic and Overseas Survey)

Subsequent study: The feasibility study on forest management plan in central highland of Viet Nam (Forest management plan implementation project)

Implementing period: June 2006-September 2008

Implementing body: JICA, Department of Forestry, and Department of Agriculture and Rural Development Kon Tum Province

Objectives:

Upper goal:

Alleviation of pressures towards forest resources caused by slash and burn activity of the villager.

Overall goal:

- 1) To introduce best practice of model villages located in two districts to other villages.
- 2) To improve living standards of villagers in two districts where 5 model villages are located.

Project goal: To improve agriculture, forestry, animal husbandry, and agro-forestry activities.

Funding:

Funding party: Yen Grant Aid, E/N concluded on 12 April 2005

Amount: 156,900 USD Technical cooperation:

Dispatch of experts: For alleviation of villagers' dependence on slash-and-burn farming in the forest areas in Kon Tum province and a shift towards a sustainable forest management, it aims to introduce a new production measure in agriculture, forestry and livestock industries, and to improve the existing production activities.

- 1) Chief advisor/participatory community development (2005/Jun-)
- 2) Sustainable agroforestry planning (2005/Jun-)
- 3) Participatory community development / training (2005/Jun-)
- 4) Dissemination planning / sustainable forest management (2005/Jun-)

#### (FY 2006 Domestic Survey)

Technical cooperation

Dispatch of experts (contents, number, period)

Implementing the above mentioned secondary year plan.

(FY 2006 Overseas Survey)(FY 2007 Domestic Survey)

Subsequent Project: The Project on the Villager Support for Sustainable Forest management in Central Highland

Funding body: JICA (Technical Cooperation Project)

Implementing period: 1 June, 2005 - 30 September, 2008

Implementing body: Ministry of Agriculture and Rural Development (MARD), Department of Agriculture and Rural Development (DARD), Department of Agriculture and Rural Development Kon Tum Province

Target areas: Kon Tum Province five model villages (three villages from Kom Plong District, two villages from Kon Ray District)

Subject of the Study: Residents in five model villages and agricultural extension workers and government staff of the state, provinces, districts, commune and village

Target: Agiculture, forestry, animal husbandry, and agroforestry activities are improved in model villages. Preparations are made for extending results of project activities to other regions.

(M/P+F/S)

Compiled Sep.2003

AS	SE VNM/S	210/02		Revised Mar.2008
1.	COUNTRY	Viet Nam		
2	NAME OF STUDY	Port System Dev	velopment Study in Southern Part of	Vietonam
۷.	MAINE OF STUDY	_	<u> </u>	
3.	SECTOR	Transportation	/ Port	4. TYPE OF STUDY M/P+F/S
			MOT, VINAMARINE	
	COUNTERPART AGEN	ICV AT THE		
	TIME OF DEVELOPMI			
		2.(1.51621		
5.				
	PRESENT COUNTERP	ART ACENCY		
	TRESENT COUNTERLY	AKI AGENCI		
				opment potential in SFEA (Southern Economic Focal Area), 2) To
				rategy including; demand estimation, conceptualization of port
				n, improvement plan, private sector participation, 3) To prepare
	OBJECTIVES OF THE			ting year 2010 and to implement F/S for prioritized projects, 4) To
6.	STUDY	conduct technic	al transfer on port maintenance techn	iques.
-		The C	Canada Amar D. L. and T. division	
-	CONCLIT TANTES		Coastal Area Development Institute	
7.	CONSULTANT(S)	Japan Port Cons	sultants Co., Ltd.	
		Dec.2000 ~	Aug.2002 20month(s)	
8.	STUDY PERIOD	Dec.2000 ~	Aug.2002 20montui(s)	
		M/P: SEE A (S	outhern Focal Economic Area)	
		F/S: 1) Cai Me		
		175. 1) Cal IVI	cp, 2) 1111 var	
_				
9.	SITE OR AREA			
	MAJOR PROPOSED PI	ROJECT(S)		
	P: (Target year 2020)			
	container terminal: 15 be			
	general cargo terminal : 2			
3) Į	bassenger terminal: 1 be	rths		
E/6	(T) (2010)			
	: (Target year 2010)	: 1 50 000DW	F 21 4	
	Cai Mep : Container tern			
	Гhi Vai : general cargo to Cai Мер - Thi Vai : Drec		W1, 2 beruis	
3) (	Lai Mep - Tili Vai . Diec	ignig of channel		

ASE VNM/S 210/02 M/P+F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 2003 Domestic Survey)

November, 2003 Appraisal Mission by JBIC

#### (FY 2003 Overseasc Survey)

Appraisal Mission of JBIC has working visit to Vietnam in November 2003. After series of discussion, following items is agreed:

- (1) It was agreed that total investment cost of Thi Vai Cai Mep International Port Development is about 328.652 million USD. Vietnamese side strongly wishes that Consulting Services Cost of Detailed Design Stage will be granted by JICA and 85% of the total investment cost less Detailed Design Cost (construction cost) will be funded by JBIC Loan. The remaining cost will be financed by the Government.
- (2) The implementation is drawn up in two options:
- (a) Option 1: JICA will implement the Detailed Design from early 2004 and the Loan Agreement will be concluded in March 2005.
- (b) Option 2: JICA will implement the Detailed Design from January 2005 and the Loan Agreement will be concluded in March 2006.

As forecast, the cargo volume throughput in Baria- Vungtau port system (mainly are ports in Thi Vai River) in 2010 includes 1.1 million TEUs for container and 5.96 million tons for general cargoes, respectively. To meet the mentioned demand forecast, simultaneous operation of two container terminals and two general cargo terminals should be started in 2010. Therefore, Vietnamese side strongly proposed that commencement of detail design should be in early 2004 and the conclusion on Loan Agreement should be done in March 2005.

#### (FY 2004 Domestic Survey)

- 1. Subsequent studies: from August 2004, "Detailed Design Study of CAI MEP-THI VAI International Terminals" Coordination D/D in progress
- 2. Funding request:
- 1) Requested party: JBIC
- 2) Requested period: 2003
- 3) Implementation status: L/A concluded in 2005, affectation planned, planned to be constructed from 2007

#### (FY 2005 Domestic Survey)

Subsequent study: Detailed Design Study of CAI MEP-THI VAI International Terminals (coordinated D/D)

Implementing period: August 2004-January 2006

Implementing body: JICA

Objective: To conduct D/D in coordination with the CAI-MEP-THI VAI port development project planned to be implemented with Yen Loan from JBIC. In addition, to conduct technical transfer on D/D, construction, and management of port facilities to PMU85 and VIINAMARINE, the C/P.

Relation with the study: Based on the result of F/S, Vietnamese government has requested the Japanese government for a loan to develop container berth (2 berths) in Cai Mep and to general cargo berth (2 berth) in Thi Vai together with the request conduct a study requiring high order technical skills and promptness. As a response, JBIC and Vietnam discussed and basically agreed on port maintenance policy mentioned in the Minutes of Discussion in November 2003.

#### Funding:

Funding party: Yen Loans (L/A concluded on 31 March 2005) 85%, Government of Vietnam 15%

Amount: 36,364 million JPY

#### Contents:

1)Cai Mep international container terminal

- (1) Quays (2 berths, 14m depth, 600m long) and Wharfs
- (2) Terminal (Approximately 43ha)
- (3) Access road (Including bridges)
- 2) Thi Vai international terminal
- (1) Quays (2 berths, 14m depth, 600m long) and Wharfs
- (2) Terminal (Approximately 21ha)
- (3) Access road
- 3) Dredge of passage
- (1) Passage of 14m depth (Downstream of Cai Mep container terminal)
- (2) Passage of 12m depth (Cai Mep container terminal-Thi Vai container terminal)
- 4) Construction (Control tower etc.)
- 5) Loading machinery etc. (Gantry cranes, multi-purpose cranes, Jib cranes, VTS system, and etc.)

#### Status:

The progress report II of the coordinated D/D was submitted to the Vietnamese side in mid October. Following the result of the report, draft final report is to be submitted in mid December. The final report is to be submitted in January 2006 after a discussion. P/Q, selection of bidders, tender, selection of constructor, and contract is planned in 2006. Construction will commence from 2007.

#### (FY 2006 Domestic Survey)(FY 2006 Overseas Survey)

Currently preparing for P/Q and etc after submission of the final report.

(M/P+F/S)

Compiled Sep.2003

**ASE** VNM/S 211/02 Revised Mar.2008 1. COUNTRY Viet Nam Feasibility Study on Red River Navigation Improvement, the Segment through Hanoi NAME OF STUDY 3. SECTOR / Marine Transportation & Ships 4. TYPE OF STUDY M/P+F/S Transportation Ministry of Transport (MOT) Project Management Unit of Water Way COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. Project Management Unit of Water Way PRESENT COUNTERPART AGENCY The study aims at land/water carriage system enforcement on Hong Ha river as a part of logistics streamlinization to responding economical development of peripheral area of Hanoi city, reduction of large vehicles traffic in Hanoi urban area which is estimated to have increased traffic due to millennia anniversary of Hanoi city in 2010, development/utilization of landlocked water carriage and stabilization of river channel for environmental improvement of OBJECTIVES OF THE urban area which is sprawly formulated on flood channel of the Hong Ha river, and formulation of new urban area on north STUDY bank of Hong Ha river. The Overseas Coastal Area Development Institute 7. CONSULTANT(S) Japan Port Consultants Co., Ltd. Aug.2001 Jun.2002 10month(s) 8. STUDY PERIOD M/P: The Study Covers. The entire Red River Delta for the long term strategy and The Hanoi Segment for the Master plan and the short Term Development Port. 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S)

It is estimated that by 2020, the number of cargo through the Hanoi Segment will increase threefold, compared to today. With a view to respond to increasing demands to inland water way, it is crucial to develop new ports and enhance existed ports' capacities immediately.

- (1) Water way improvement: the Hanoi Segment
- (2) Port management: Hanoi Port, New northern and eastern Ports
- By 2010: Berthing facilities (0.9km), 4 Satellite customer terminals, cargo-handling gear, preservation facilities, inland container |with a distribution center, Customer terminal
- By 2020: Access roadways related facilities, Berthing facilities (2.4km)

ASE VNM/S 211/02 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2003 Domestic Survey)

No information on concrete actions because the survey was conducted shortly after the study had been completed.

#### (FY 2003 Domestic Survey)

Based on the Feasibility Study report by JICA, the Feasibility Study on the Red river Waterways Improvement in the Segment through Hanoi following Vietnamese procedures and Environment Impact Assessment as required by JBIC were completed.

Being aware of the importance and urgent ness of this project in terms of waterway transport development and the implementation of this project is a basic conditions for Hanoi city development as this river segment runs thought Hanoi center in near future, PMU-Waterways, thought the Ministry of Transport and the Ministry of Planning and Investment, has also requested JICA for Detailed Design, as an speed up the project to meet the requirement.

#### (FY 2004 Domestic Survey)

Currently, priorities of the request from Vietnam are placed on road, bridge, railroad, and port projects, thus probability of project implementation is low.

#### (FY 2004 Overseas Survey)

Based on M/P and F/S report "The Feasibility Study on the Red River Waterway Improvement in Hanoi Area", request from JBIC to Vietnam on the following process were executed. In addition, Environment Impact Assessment (EIA) was conducted. EIA was reviewed and approved by the Ministry of Natural Resources and Environment (MONRE), and has been submitted to JBIC. PMU-water way has prepared examination papers as mentioned in JBIC request.

- 1) 2003: PMU-Waterway has requested JICA for a Grant Aid for D/D through the Ministry of Transport and the Ministry of Planning and Investment (MPI).
- 2) 2004: Instead of the Vietnam government, MPI has submitted a diplomatic document to Japan requesting for a Grant Aid.
- 3) Currently, project approval is anticipated to be made by Japanese government through JICA or JBIC in fiscal year 2005. Application for the ODA by the Vietnamese government will continue in the future. Cooperation from JICA is anticipated.

#### (FY 2005 Domestic Survey)

The project has been short-listed for a Yen Loan in the Ministry of Transport, and is under consideration in JBIC.

#### (FY 2005 Overseas Survey)

The Ministry of Transport (MOT) had submitted F/S to the government of Vietnam for an approval of the investment. Ministry of Planning and Investment (MPI) had arranged a meeting for project adoption on 11th November, 2005 participated by representatives from Hanoi People Committee and related ministries. The project was strongly supported by Hanoi People Committee, which MPI has proposed to the government for an approval. As a result, MPI on behalf of the Vietnamese government enlisted the project on the short-list and had included the project in a diplomatic letter of 1st August 2005 to the Japanese government (through Japanese Embassy) for preferred credit.

#### (FY 2006 Domestic Survey)

Even though that the region have enjoyed remarkable economic development, road transportation infrastructure environment has not necessary improved. Demand for inland water transportation is high, which can be considered to have high possibility of implementing subsequent projects.

#### (FY2007 Domestic Survey)

No information to be specifically mentioned.

#### (FY2007 Overseas Survey)

Vietnamese consultant updated the outcome of the mentioned study such as the Red River Bridge with the consideration of changing value.

Subsequent study: F/S of Northern Delta Transport Development Project (NDTDP)

Implementing period: July, 2007 - March, 2008

Implementing body: PMU-Waterways

Objective: F/S will be carried out with Vietnamese domestic law and standard to learn whether NDTDP is appropriate to be evaluated from the World Bank. The study is constructed with the analysis of technology, economy, finance, environment and society and preparatory work project of selected implementing project. Terms of reference of detailed design, site managing and other technical cooperation proposed by NDTDP will be prepared.

#### A) Construction on three main channel corridors.

- A1) Through Duong River (Quang Ninh-VietTri), A2) Through Ruoc River (Quang Ninh-Nimbi), A3) Through Lach Giang river mouth (Hanoi-sea)
- B) Construction of 10 to 15 river ports and a bridge over three main channel corridors.
- C) Construction of 15 to 30 small scale ferry pier crossings on the three main channel corridors.
- D) Support to the inland waterway divisions and transport departments of 15 states effected by the project.

Relation to the mentioned study: Channel between the Red River and Hanoi proposed in the mentioned study is included in A1 and A2 listed above. Progress:

(FY2007 Overseas survey) Plan listed below is agreed by the Vietnamese government and the World Bank.

April, 2008: Approval by the Vietnamese government

June, 2008: Credit agreement negotiation (May, 2008), Submission to the World Bank administrative board

June/July, 2008: Sign to the credit agreement

(M/P+F/S)

Compiled Sep.2003

AS	SE VNM/S 2	12/02 Revised Mar.2008
1.	COUNTRY	Viet Nam
2.	NAME OF STUDY	Study on Groundwater Development in the Rural Provinces of the Central Highlands in the Socialist Republic of Viet Nam
3.	SECTOR	Social Welfare / Disaster Relief 4. TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERP	RT AGENCY
6.	OBJECTIVES OF THE STUDY	1) To evaluate groundwater potential for the water supply scheme in the Study area of the 3 provinces of Kon Tum, Gia Lai and Dac Lac, 2) To formulate a master plan for the water supply scheme in the Study area targeting year 2020, 3) To conduct a feasibility study on prioritised project, 4) To conduct technical transfer to the C/P through implementation of the study.
7.	CONSULTANT(S)	Nippon Koei Co., Ltd.
8.	STUDY PERIOD	Nov.2000 ~ Mar.2002 16month(s) ~
9.	SITE OR AREA	F/S: 21 Water Supply Systems in 20 Communes in the same area above.
	MAJOR PROPOSED PR	OJECT(S)
asp	nong 46 Water Supply Sy ects such as economy, po	stems in 20 communes, 21 systems were selected as priority projects to be implemented in 1st stage considering various verty, and care for ethnic minorities. The proposed Water supply systems consist of; 1) pumping system of ground water, 2 and 3) public water taps. As for the rest of 25 systems, it was decided to be implemented in the Phase 2 project.
Fun val cor imp Imp	ues in FIRR, and only 10 nprehensive evaluation colementation was proposed blementation Period	,717 USD deep for the selected 21 systems in 20 communes. As a result of the F/S, it turned out that all the 21 systems showed negative systems showed positive values in EIRR. However, it was confirmed that 21 systems were feasible as a result of evering facility management, organization management and difficulties in taking environmental efforts. A 4-step-wise december based on the maturity of communes and others.

ASE VNM/S 212/02 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 2003 Domestic Survey) Awaited for B/D Study

(FY 2003 Overseas Survey)

The Government of Viet Nam has requested Grand aid from Japan Government according to MPI' letter dated on 16 September 2002.

(FY 2004 Domestic Survey)(FY 2004 Overseas Survey)

Although requests have been made for a Grant Aid in 2002, 2003, and 2004, none of them has been selection.

(FY 2005 Domestic Survey)(FY 2005 Overseas Survey)

Subsequent study: Basic Design on Groundwater Development in the Central Highland Area

Implementing period: August 2005-March 2006

Implementing body: JICA

Funding:

Requested date: 1 September 1999 Funding party: YEN Grant Aid

Objective: To survey target communes for data collection, information gathering and prepare B/D

Relation with the study:

- 1) 13 communes received a Grant Aid from Japanese Government (less 1 communes)
- 2) Dak Lak province has been divided into 2 provinces as; Dak Lak and Dak Nong, which 4 communes (D1, D2, D3, and D4) belongs to Dak Lak province and 1 commune (D6) belongs to Dak Nong province.
- 3) Number of supporting vehicles reduced from 4 to 2 units
- 4) Photovoltaic energy systems not included in the project.

Status:

La Rsiom commune of Gia Lai province (G6) has constructed 3 small-scale water supply systems. Two of the system were received an assistance from ADB and the remaining was assisted by UNICEF. These water supply systems are providing clean water to 2,500 - 3,000 residents (about 1,000 household) in project area. The request was approved by Japan. These water supply systems is providing clean water to 2,500 - 3,000 residents (about 1,000 household) in project area.

(FY 2006 Domestic and Overseas Survey)

Final report submission

(FY 2006 Overseas Survey)

Prospected to sign E/N on D/D with Japanese government in November, 2006

(FY 2007 Domestic Survey)

No information to be specifically mentioned.

(M/P)

Compiled Mar.2005

COUNTRY	Viet Nam				
NAME OF STUDY	The Study on N	ationwide Water Resources Management in the Socia	alist Republic of Vietnam		
SECTOR	Social Infrastruc	cture / Water Resources Development	4. TYPE OF STUDY M/P		
BLETON	Social Illiana	Institute of Water Resource Planning (MARD)	" TITE OF GROED IN		
COUNTERPART AGEN TIME OF DEVELOPME					
PRESENT COUNTERPA	ART AGENCY				
OBJECTIVES OF THE STUDY	2. To formulate Integrated River conduct a feasily	an integrated River Basin Management Plan for the I Basin Management Plan for the priority river basin to sility study for the priiority projects to bee selected from	Huong River basin (Phase 2-1) 3. To formulate an to be selected from 14 river basin (Phase 2-2) 4. To om the priority river basin (Phase 2-3) 5. To pursue		
CONSULTANT(S)					
STUDY PERIOD	Sep.2001 ~	Sep.2003 24month(s)			
SITE OR AREA		n Vietnam			
		ement Plan for 14 Major River Basins			
2. Integrated River Basin Management Plan for Huong River Basin  1)Ta Trach Reservoir Project  2)Huu Trach Reservoir Project  3)Irrigation and Drainage Facilities  4) Domestic and Industrial Water Supply					
3. Integrated River Basin Management Plan for Kone River Basin  1)Dinh Binh Multipurpose Reservoir  2)Agricultural Development Plan: (1)Van Phong Weir, (2)Irrigation and Drainage Plan  3)Domestic and Industrial Water Supply Plan  4)Flood Control and Bank Erosion Protection Plan  5)Rural development Plan  6)Water Resources Management Plan					
	STUDY PERIOD  SITE OR AREA  MAJOR PROPOSED PROVIDENT RESOURCES Development Reservoir Propringation and Drainage From Trach Reservoir Propringation and Drainage From Trach Reservoir Propringation and Drainage From Stick and Industrial Propose Regicultural Development Plan Reversion and Industrial Propringation and Industrial Propringa	OBJECTIVES OF THE STUDY  2. To formulate Integrated River conduct a feasible technology transformation of the conduct and the state of the conduct and the con	Nippon Koei Co., Ltd. NIKKEN Consultants, Inc.  STUDY PERIOD  Sep.2001 ~ Sep.2003 24month(s)  14 river basins in Vietnam  SITE OR AREA  MAJOR PROPOSED PROJECT(S)  Vater Resources Development and Management Plan for 14 Major River Basins  Integrated River Basin Management Plan for Huong River Basin  Ta Trach Reservoir Project  Intu Trach Reservoir Project  Irrigation and Drainage Facilities  Domestic and Industrial Water Supply  Integrated River Basin Management Plan for Kone River Basin  Oinh Binh Multipurpose Reservoir  Regircultural Development Plan: (1)Van Phong Weir, (2)Irrigation and Drainage Plan  Domestic and Industrial Water Supply Plan  Rood Control and Bank Erosion Protection Plan  Rural development Plan		

ASE VNM/S 101/03 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

#### **Description:**

1. Water Resources Development and Management Plan for 14 Major River Basins

(FY 2004 Overseas Survey)

The Cua Dat Dam and the Nuoc Trong Dam have been constructed by the Government of Vietnam.

2. Integrated River Basin Management Plan for Huong River Basin

1)Ta Trach Reservoir Project

(FY 2004 Overseas Survey)

The Viet Nam government has decided to conduct a study for Ta Trach multi purpose dam construction which prepared a plan to secure a fund from Japanese ODA in 2007. However, on 26th January, 2005, to prevent flooding of Huong river, residents' committee of Thua Thien Hue region have proposed MARD to procure fund from international organization.

(FY 2005 Domestic Survey)

Vietnamese government requested for a F/S of Ta Trach multi purpose dam construction to Japanese government in 2004, while showing intension to implement the project with JBIC fund in the future.

(FY 2007 Domestic Survey)

Based on the above request, JBIC have conducted the following SAPROF; "Ta Trach Multi Purpose Dam Construction Formation Study Phase 1" (2002) and "Ta Trach Multi Purpose Dam Construction Formation Study Phase 2" (2004). No issue was identified in the Phase 1 study through geological study and needs assessment, which have confirmed that the dam construction was still a convincing option although additional study is required fro option assessment. In Phase 2, project will be formulated through considerations for more comprehensive alternative plan by sharing information of environment assessment, case study of dam construction, and water utilisation plan of the project with the residents.

However, the Viet Nam government have changed its policy to implement the project with their funds, thus request for the Japanese F/S has been withdrawn. The Viet Nam government is planning to complete the project in 2011.

Implemented project: Ta Trach reservoir

Implementing body: HECI Implementing period: 2005 to 2011

Funding:

Funding party: Own fund

Progress:

(FY 2007 Domestic Survey)

- Transfer of residents have completed smoothly with additional fund financed for construction of residences and infrastructure.
- However, some residents have shown dissatisfaction due to difficulty met in proceeding livelihood restoration program
- Progress for access road and construction yard except for the main engineering work are progressing at satisfactory level, which are to be completed in 2008.
- Delays in dam construction is due to time spent in change of design of the dam, increase in project cost, difficulty in procuring construction fund, and etc.
- The main construction will commence in 2008 and is planned to be completed in 2013, although there is a possibility for further delay if fund is not procured.

#### 2)Huu Trach Reservoir Project

(FY 2007 Domestic Survey)

While the hydropower dam will be completed by investment of EVN, the plan is lagged and will be scaled back.

3) Other projects

Construction of the Cobi Dam will be completed by 2011 by EVN investment but the project is still in planning phase.

The project of constructing Taulon dam was completed in May 2007.

3. Integrated River Basin Management Plan for Kone River Basin

1)Dinh Binh Multipurpose Reservoir

(FY 2004 Overseas Survey)

Subsequent project: Dinh Binh reservoir

MARD confirmed the technical plan, and part of the construction is conducted by budget of the central government.

2)Agricultural Development Plan:(FY 2004 Overseas Survey)

(1) Van Phong Weir

(FY 2004 Overseas Survey)

MARD decided to implement a Feasibility Study.

(2) Irrigation and Drainage Plan

F/S for construction projects, including Drainage Project for Central Area: ADB4 have completed, and acknowledged by MARD. Each projects are as follows, 1) La Tinh river basin project; 2) Thuan Phong river basin irrigation and drainage system, Thuan Ninh dam, 3) F/S have not been conducted for flood prevention for Kon river basin project basin

(FY 2006 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET (Other Studies)

		(Other Studies)	Compiled	Mar.2005
AS	E VNM/S 601/	03	Revised	Mar.2008
1.	COUNTRY	Viet Nam		
2.	NAME OF STUDY	Support Program on Primary Education Development in the Socialist Republic of Vietnam		

2.	NAME OF STUDY	Support Program on Primary Education Development in the Socialist Republic of Vietnam					
3.	SECTOR	Human Resource	ces Developn / Educa	tion	4.	TYPE OF STUDY	Other Studies
5.	COUNTERPART AGEN TIME OF DEVELOPME		MOET: Primary Ed	ucation Department			
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	part of overrall Development S	•	achieve the "Educati " while better coordi	on for All" goals nating with dono	that are described i	ment Program (PEDP) as a not the "Vietnamese Education the PEDP.
7.	CONSULTANT(S)	PADECO Co,.	Ltd.				
8.	STUDY PERIOD	Jul.2001 ~	Mar.2004	32month(s)			
9.	SITE OR AREA	DOET of Bac C	Giang Province, Vietn	am			

### 10. MAJOR PROPOSED PROJECT(S)

For the Phase I of the program, it was proposed to adopt and promote the project consisting of following components.

- "B. Capacity building for the Department of Education and Training" targeted at the department and its subordinate institutes.
- "C. Capacity building for local educational administration" targeted at local educational administration organizations
- "D. Trainings (and reeducation) for teachers" for teachers colleges
- "E. School-based assistance (modeling scheme of full-time elementary schools)" for elementary schools

The draft proposal was revised and examined further on the following points after launching the Phase 2.

- Examination of the priority of proposed sub-components: The priority of components was re-examined based on a comment that components should be prioritized. As a result, it was agreed that all the components were equally important and therefore it was desirable to implement them at the same time. It was considered that each component was closely linked to one another and thus taking a comprehensive approach could bring about more fruitful benefits while keeping the experimental feature of the project.
- Revision of part of the proposed sub-components: The component on supporting the introduction of new curriculum was partly revised. The component on the development of school meal facilities was added.

ASE VNM/S 601/03 Other Studies

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### Description:

(2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

Following are results of the Project:

- Established National Primary Education Development Program (PEDP). The PEDP was used in forming Education for all (EFA) plan and was referred to when forming central level and local level plans. Participatory Approach applied in the project for establishing provincial PEDP is utilized not only in establishing plans but also in other activities such as teachers training teaching etc.
- Suggestions: In order to make the Project be sustainable, it necessary to assist provinces which have low capacity or which are newly established in forming their provincial PEDP.

(FY 2005 Domestic Survey)(FY 2007 Domestic Survey)

Implemented project: Strengthening cluster-based teacher training and school management in Vietnam Phase I

Implementing period: sep/2004 - Aug/2007

Implementing body: DOET

Objectives: The project will place 3 training systems as an output: 1) Teacher training school management skills improvement program; 2) Head teacher school management skills improvement program; 3) Regional education official planning and management skills improvement program

Funding:

Funding amount: 300 million JPY

Funding party: Grant Aid Cooperation Project (E/N signed: unknown)

Technical cooperation:

Training: 133 rectors and 133 teachers from Bac Giang and 15 officials from DOET and BOET

Dispatch of experts: 1. Team leader, 2. Planning and training, 3. School management/small-scale planning, 5. Monitoring and evaluation

Other cooperation: equipment (textbooks, laboratories, audio and visual), field-work (training, seminars and workshop), internship programmes.

Beneficiaries: project site: 3 - 5 provinces in Bac Giang, target: Ministry of Education and Training, Bureau of Education and Training in Bac Giang, Departments of Education and Training in the provinces (apx. 50 personnel), teachers (apx. 5,000), principles and sub-principles in primary schools of the provinces (apx. 600).

Benefits: Experts from JICA has been requested by the director of Bac Giang DOET to expand its cooperation to other areas of Bac Giang province. Corresponding to the request, the project has partially begun implementation in the area. Central Working Group has acknowledged the strong relation between central and regional educational institution, which has given an opportunity to diffuse outcome of the project to institutions in Bac Giang province.

(FY 2006 Domestic and Overseas Survey) No information to be specifically mentioned.

# STUDY SUMMARY SHEET (M/P+F/S)

ASE VNM/S 201/04 Compiled Jan.2006
Revised Mar.2008

-	COLINIEDE	3.7° 4.30					
ı.	COUNTRY	Viet Nam					
2.	NAME OF STUDY		The Study on Urban Transport Master Plan and Feasibility Study in HCMi Metropolitan Area in the Socialist Republic of Vietnam (HOUTRANS)				
3.	SECTOR	Transportation	/ Urban Transportation	4. TYPE OF STUDY M/P+F/S			
5.	COUNTERPART AGEN TIME OF DEVELOPME		Transport Development and Strategy Institute	(TDSI-South), Ministry of Tranasport			
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	ALMEC Corpor	ration				
8.	STUDY PERIOD	Aug.2002 ~	Jun.2004 22month(s)				
9.	SITE OR AREA		n, comprising Ho Chin Ming city and part of suppopulations including 3.53 million urban resid	rrounding 3 provinces (Dong Nai, Bing Duong, Long An) ents.			
10.	MAJOR PROPOSED PR	OJECT(S)					

#### 10. MAJOR PROPOSED PROJECT(S)

M/P:

- 1. Road projects: 1) primary road (15 packages (38 routes), total 382 km) 2) secondary road (16 packages, total 757 km), 3) urban highway (7 zones, total 46 km), and 4) overpass (58)
- 2. Traffic management system projects: 1) traffic management capacity building (training, traffic control equipment, etc., 2) CBD traffic management traffic lights, parking lots, underground passages, pedestrian roads, etc., and 3) bus corridor management (small-scale improvement, bus facility, etc.)
- 3. Public transportation service: 1) urban transport (5 routes, total 97 km), 2) bus way (3 routes, total 57 km), 3) bus system modernization
- (compartment, assistance, etc.), 4) public traffic terminal (UMRT, intercity bus terminals, and 5) urban water-borne traffic (terminals, water-buses, etc.) 4. Traffic environment projects: 1) district traffic improvement (traffic management, feeder road transport, etc.), 2) green network (roadside trees, open street, pedestrian mall, etc.), 3) air pollution improvement (vehicle inspection, monitoring equipment, etc.), and 4) traffic safety improvement (safety facility improvement, campaigns, etc.)

F/S:

- 1. Ring road No.2: To develop Ring road No.2 as a complete road and as well as to establish a core area to induce sound urban development by developing the road together with alongside city areas. To do so, a comprehensive development plan has been proposed, considering the following sub-components; a) construction of eastern section (23.5 km, including Phu My Bridge), b) expansion of south-west section (5.0 km, including Phu Dinh Bridge, c) flyover throughout No.2 (total 11 sites)
- 2. UMRT No.1: To develop efficient public transportation corridors in the highly prioritized east zone of UMRT No.1 and the 28-kilometer urban axis from Binh Tay in the center of Ho Chi Minh City to a satellite city in eastern area, Bien Hoa, by linking them with urban transport and buses which can be rapid and mass transit on demand. a) urban railway (underground, 1.8 km), b) urban railway (overhead, 7.5 km), c) urban railway (ground, 4.4 km), and d) bus way (14.5 km)

ASE VNM/S 201/04 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2005 Domestic Survey)

Subsequent study: Ho Ting Minh UMRT No.1 eastern section construction plan

Implementing body: Ministry of Economy, Trade, and Industry

Objective: Depth analysis by JARTS, based on HOUTRANS F/S report due to alteration made to the design of new bridge construction (Tu Tiem bridge). Estimate of the project cost has increased to 625.9 million USD based on revision of lines, detailed budgeting, and survey on resettlement target occupants. In addition, EIRR and FIRR have been recalculated, which were estimated to be 19.3% and 10.9% respectively.

Status: Prospecting to proceed Yen loan procedures based on the study result. Construction Investment Report (CIR) and Construction Investment Plan (CIP) is currently prepared for an approval of the Prime Minister.

(FY 2006 Domestic Survey) (FY 2007 Domestic and Overseas Survey)

Subsequent study 1: Project Formulation Promotion Study (SAPROF) on Ho Chi Minh City Urban Traffic Improvement Project (East zone of No1 mass rapid transit line) Implementing period: April 2006 - October 2006

Implementing body: Ministry of Transport (MOT)

Objective: Contributing to improve urban environment, to develop economies of Ho Chi Minh and other regions with reduced traffic pollution and traffic jams through intending to respond to accretive transit demand by building mass rapid transit system in largest Vietnamese city Ho Chi Minh. The SAPROF present a proposal toward the project implementation following reviews F/S done by the C/P.

Contents: 1) Necessity of the project and basic information; 2) Confirmation and review validity of the project scope; 3) Review and confirm the project implementation structure and operation and maintenance structure; 4) Conduct supplementary study and make recommendation on environmental and social consideration. The 85% of total investment amount USD 1,025 including land acquisition cost etc, is proposed as the Yen loan project in SAPROF phase.

Subsequent study 2: Project Formulation Promotion Study (SAPROF) on Ho Chi Minh City Urban Traffic Improvement Project: Unity of Development of Surrounding Area

Implementing period: March - August 2006

Implementing body: Ho Chi Minh People's Committee

Objective: Recommending various issues and plans and cooperating SAPROF in order to support to the Ho Chi Minh People's Committee and the Government of Viet Nam to formulate the development plan of surrounding area.

Contents: a) Analyzing the current situation and outlook of the development of surrounding area; b) Reviewing the urban development of surrounding area and land utilization; c) Reviewing the transporting network plan; d) Identifying the strategic projects and activities to realize synergetic effect; e) Performing initial evaluation about the feasibility of the recommended project, f) Reviewing the supporting system for implementing the above-mentioned project.

Relation with the procurement: The subsequent projects (1)(2) were selected as prioritized route in whole network of mass transit system which was planned in the study on Ho Chi Minh urban transport plan (HOUTRANS). Followed by that result, the C/P requested financial assistance to Japanese government as a yen loan project. Funding party: Yen Loan (L/A concluded: 30 March 2007), Funding amount: 94 million USD (total 1.9 billion USD)

Status: The consultant has been already selected (January, 2008)

Subsequent study 3: Ring Road No. 2 Project(ADB-PPTA SAPROF)

Implementing period: March 2008 - March 2009

Implementing body: Ho Chi Minh People's Committee

Objective: Formulating the road network at the Ho Chi Minh City. In order to prevent inflow traffic between cities, the Ring Road No. 2 has high priority. Since the Second Ring Road had not been completed, it becomes dysfunctional. In order to complete the road, the plan aim to review the implementing plan and the framework of operation and maintenance and traffic management.

Contents: 1) F/S of the project; 2) Reviewing introducing the PPP method in order to operation and management cost reduction; 3) Reviewing the comprehensive traffic management system.

#### Others:

Among the inner-city flyover expressway network recommended in the Master Plan, connecting road between the city and the airport has been planned to implement as: BOT by the Government of Ho Chi Minh. Among the inter-area expressway network, the local feasibility study access road between western Mekong-Delta and eastern Vung-tau has been implemented.

**(D/D)** 

Compiled Feb.2007

AS			Revised Mar.2008
1.	COUNTRY	Viet Nam Detailed design	study of CaimepThivai international terminals in Socialist Republic of Vietnam
2.	NAME OF STUDY		
	SECTOR	Transportation	/ Port <b>4. TYPE OF STUDY</b> D/D
5.			Project Management Unit 85, Ministry of Transport (PMU85)
	COUNTERPART AGEN		
	TIME OF DEVELOPME	ENT STUDY	
	PRESENT COUNTERPA	ART AGENCY	
		Implementing th	ne 2010 target year Caimep Thivai international harbor detail design.
6.	OBJECTIVES OF THE		
	STUDY		
		Japan Port Cons	
7.	CONSULTANT(S)		ants International
		Aviation System Aug.2004 ~	ns Consultants Co., Ltd.  Dec.2005 16month(s)
8.	STUDY PERIOD	~	Dec.2003 Tolliolita(s)
		CaimepThivai ii	nternational terminals
9.	SITE OR AREA		
10.	MAJOR PROPOSED PR	ROJECT(S)	
			on, Environmental condition, Cargo demand forecast, Port planning and master plot)
	Design of facilities (Build dging, cargo handling ma		s of Caimep container terminals, Buildings and facilities of Thivai groceries terminal, Fairway and
			onstruction Planning, Quantity survey, Economic analysis, Financial analysis, Environment-friendliness)
4) I	Project management and	maintenance (Har	rbor managers, Facilities maintenance plan)

ASE VNM/S 401/05 D/D

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 2006 Domestic and Overseas Survey) (FY 2007 Domestic and Overseas Survey) Implemented project: Caimep - Thi Vai International Port Construction Project

Implementing period: January 2007 - December 2011 Implementing body: Project Management Unit 8

Funding:

Funding party: Yen Loan (L/A concluded 2005/Mar/31)

Amount: 36,364 million JPY

Objective: The purpose of the project is to construct container terminal, general goods terminal and related institutions in order to contribute to the economic development in the potential Southern Economic Development Area.

Package 1: Construction of Port Facilities and Buildings for Cai Mep International Container Terminal

Package 2: Construction of Port Facilities and Buildings for Thi Vai International General Cargo Terminal

Package 3: Navigation Channel Dredging and supply and installation of traffic safety system

Package 4: Equipment Procurement (Container cranes x 4, Multipurpose cranes x 4, RTG x 15)

Progress:

(FY 2006 Domestic and Overseas Survey) Consultant will be selected in the end of 2006 and a tender will be held from next year.

(FY 2007 Domestic and Overseas Survey) In the progress evaluating the tender of P-1 (Cai Mep port engineering work) and P-2(Thi Vai port engineering work).

# STUDY SUMMARY SHEET (Other Studies)

			(Other Studies)	Compiled	Mar.199
AS	CHN/S 601/7	79		Revised	Mar.200
COUN	TRY	China			

	COCIVIRI	Port Construction
2.	NAME OF STUDY	Port Construction
3.	SECTOR	Transportation / Port 4. TYPE OF STUDY Other Studies
5.		National Basic Construction Committee
	COUNTERPART AGENTIME OF DEVELOPME	
	PRESENT COUNTERPA	RT AGENCY
6.	OBJECTIVES OF THE STUDY	
7.	CONSULTANT(S)	The Overseas Coastal Area Development Institute
Q	STUDY PERIOD	Jan.1980 ~ Feb.1980 1month
о.	STUDY PERIOD	Shijiusuo and Qinhuangdao
9.	SITE OR AREA	
	MAJOR PROPOSED PRO	
Fea	sibility study on Shijiusu	o as a port of coal export and iron ore import and on Qinhuangdao as a port of coal export.
	±2±+0+1==	

EAS CHN/S 601/79 Other Studies

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

Finance:

OECF loans have been agreed as follows.

		ijusuo S	zhou- Shijusuo	Beijing- Qinhuangdao	
	Port		ilway	Railway	
	Co	nstruction	Construction	n Improveme	nt
				•	
1st	Apr.1980	7,085	10,100	2,500	
2nd	Dec.198	9,860	3,110	11,200	
3rd	Apr.1982	18,500	3,200	9,200	
4th	Oct.1982	2,300	11,800	30,900	
5th	Aug.1983	5,200	11,500	33,200	
	_		llion yen)		

(Other Studies)

Compiled Mar.1986

EA				I	Revised Ma	ar.2008
1.	COUNTRY	China				
2.	NAME OF STUDY	Railway Moder	nization Project			
	SECTOR	Transportation	/ Railway	4. TYPE OF STUDY Other S	Studies	
5. 5.	SECTOR	Transportation	Dept. of Railway	4. TIPE OF STUDI OHIELS	studies	
	COUNTERPART AGEN	ICY AT THE	Sopi. of Running			
	TIME OF DEVELOPME	ENT STUDY				
	PRESENT COUNTERPA	ART AGENCY				
		Technical coop	eration			
6.	OBJECTIVES OF THE					
	STUDY					
7.	CONSULTANT(S)					
		1 1 1070	0 1001			
8.	STUDY PERIOD	Jul.1979 ~	Sep.1981 26month(s)			
		Beijing - Tianji	n and Beijing - Hengyang			
9.	SITE OR AREA					
10	MAJOR PROPOSED PR	POTECT(S)				
			was assigned to assist for the modernization of Chi	nese railways		
			uidance for renovating the sections between Beijing		igyang, (2) the	e
			nd electrification of Beijing-Tianjing section, (3) the	e survey on the automation of the ma	arshalling yar	rds, and
(4)	the survey on the automa	ation of train ope	rations.			
1						

**EAS** CHN/S 602/81 **Other Studies** In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** The important sections of this study were surveyed by JICA and yen loan was concluded. Jul. 1983~Aug. 1984 "Railway Electrification Project between Chengchow and Paoki" and the "Double Tracking and Electrification Project between Hengyang and Kwangchow" (FY 1994 Overseas Survey) Technical guidance for Chinese Ministry of Railways(Jul. 1979 - Sep. 1981) contributed to the railway modernization in China. 1) Technical guidance to improve transportation capacity by shortening interval between train services is working effectively. The interval was shortened from ten to eight minutes. 2) Technology transfer of alarm systems, train radio communications, or automatic train stop (ATS) for natural disaster contributes to prevent railway accidents. 3) The technical guidance also contributed to the "Railway Electrification Project between Chengchow and Paoki" and the "Double Tracking and Electrification Project between Hengyang and Kwangchow(CHN/S 302/84)" completed after this project. 4) Technology transfer of the Japanese yard-automation method was not effective because of huge China's railway freight compared with Japan's. The north yard in Chengchow was fully automated based upon the Canadian method which had nearly the same size of freight. The method will be gradually spread to other districts. (FY 1995 Domestic Survey) Since the Japan National Railway had been devided and privatized, it is impossible to gain the informations concernd (According to JR Eastern Japan Co.).

(F/S)

Compiled Mar.1988

CHN/S 301/84 **EAS** Revised Mar.2008 1. COUNTRY China Improvement Project of Chimwangtao, Lieyunkang and Tsingtao Ports 2. NAME OF STUDY 3. SECTOR / Port TYPE OF STUDY F/S Transportation 5. National Planning Committee, National Science and Technology Committee, Transport Department COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Preparation for port developemnt plan of 1990 as target year. OBJECTIVES OF THE STUDY The Overseas Coastal Area Development Institute 7. CONSULTANT(S) Jul.1983 Sep.1984 14month(s) 8. STUDY PERIOD 1.Qinhuangdao 2.Lianyun 3.Qingdao 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) 1) Qinhuangdao 2) Lianyun 3) Qingdao 1,326m 3,170m 930m Break water Berth (-12.5) 967m (Container)560m (Coal) 295m (-10.0) 410m (Grain) 280m (Timber) 200m (Timber) 450m (General)200m (sand) 215m 4,300,000cu.m 10,341,000cu.m Dredging 8,969,000cu.m Land Reclamation 4,260,000cu.m 4,900,000cu.m 7,670,000cu.m

EAS CHN/S 301/84 F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

Finance:

(FY 1994 Domestic Survey)

OECF loans were provided as follows.

Qinhuangdao Lianyun Qingdao (mil.yen)

 Oct.1984
 46.31
 24.45
 22.03

 Aug.1985
 37.23
 57.72
 39.37

 Jun.1986
 70.11
 110.85
 26.20

 Jul.1987
 34.51
 119.11
 86.83

 Aug.1988
 31.84
 82.97
 130.43

 Mar.1989
 74.9
 265.14

Construction:

(FY 1992 Overseas Survey)

(1)Tsingtao Port

1985-1990 Completion of port facilities

1986-1990 Completion of water supply facilities

1991-1993 Completion of railway

The Chinese side acknowledges that construction works of the Phase 1 was basically completed. Construction of additional 6 berths in the Phase 2 was requested to the National Planning Committee.

(2)Lianyun Port

Nov.1990 Timber Berth completed

Jun.1992 Container Berth completed

Dec.1992 Grain Berth completed

Oct.1993 Completion on Break Water

(3)Qinhuangdao Port

Jan.1989 Opening of operation on western Ding Berth of Qinhuangdao.

\*Related Projects

Finance:

Oct.15.1992 L/A 590 mil.yen (Lianyun Port First Expansion Project)

Jan.13.1995 L/A 3,041 mil.Yen

 $(Qinhuang dao\ Port\ E\ and\ F\ Berths\ Construction\ Project(II))$ 

L/A 7,178 mil.Yen

 $(4th\ Stage\ Coal\ Terminal\ Construction\ Project(II))$ 

\*Contents of loans

Materials and equipment needed for the construction of berthes.

Dec.26.1996 L/A 2,700 mil.yen

(Qindao Port Second Phase Expansion Porject)

\*Contents of loan

Construction of container berth(2) and general cargo berth(4)

(F/S)

EA	AS CHN/A 3		Revised Mar.200			
	COUNTRY	China	1/11/20			
2.	NAME OF STUDY	Sanko Heigen Ryutokyo Model Area Agricultural Development Project				
	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S				
5.	COUNTERPART AGEN TIME OF DEVELOPME PRESENT COUNTERPA	ENT STUDY				
6.	OBJECTIVES OF THE STUDY					
7.	CONSULTANT(S)	Agricultural Development Consultants Association				
8.	STUDY PERIOD	Aug.1981 ~ Mar.1984 31month(s)				
	SITE OR AREA	East region of Hei Long Jiang Province, Central part of Quan San Jiang Plain (arable land area 400mill District of Bao Qing Xian (6 million ha)	on ha), Model			
	MAJOR PROPOSED PRogramment in the second representation of the second repr					
	Ildam : Crest 1,					
		Shan 75m, Tou Dao Crest 45m)				
	_	9 km				
- D	rainage Construction : 1	158.8 km				
- In	rigation Construction: 1	72.3 km				
- R	- Road Construction : 137 km					
- Farm Land Improvement : 46,170 ha						
* In	* Implementation period below is 2 years for design and 10 years for construction.					

EAS CHN/A 301/84 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Finance:

(FY1991 Overseas Survey)

The study result has incorporated in the provinces 8.5 Plan with planned project budget of 3.47 bil. yuan. In Jan.92, the National Water Supply Dept. decided to provide a financial support to the project. A request has been made to the National Planning Committee for the utilization of foreign fund, and presently in process toward ratification

(FY1992 Overseas Survey)

The National Planning Committe approved the implementation of the project with budget of 3.45 billion yuan in Oct., 1992. The foreign funds can be utilized to finance the project if the project is implemented after 1995. The Local Water Supply Department plans to send a mission to Japan for the negotiation of Japan's Grant Aid in Feb., 1993

(FY1995 Domestic Survey)

It is learnt that both countries have agreed to make this Project as one of the 4th yen Credit Project on the annual conference on FY 1994.

(FY 1997 Domestic Survey)

It seems that JICA Follow up study team was dispatched in Oct.1997.

Dec. 1996 L/A 3,000 mil. Yen

(Sanjiang Plain Long touqiao Reservoir Construction Project)

Construction:

(FY 1997 Domestic Survey)

Construction has not started yet. The project will be implemented under the direct control of Water Supply Department.

Detail:

(FY1992 Overseas Survey)

The entire plan of Sanko Heigen Development Project was designed between 1974 and 1977. Rehabilitation projects of five rivers at the Sanko Heigen are under way. About a half of the construction work was completed with the financial support of the World Bank and the local funds. The lower parts of the river has been improved.

(F/S)

Compiled Mar.1988 **EAS** CHN/S 302/84 Revised Mar.2008

1.	COUNTRY	China						
2.		Double Tracking and Electrification Project of Railways between Hengyang and Kwangchow, and Electrification Project of						
		Railways between	en Chengchow and Paoki					
	SECTOR	Transportation	/ Railway		4.	TYPE OF ST	UDY	F/S
5.			Planning and Statistics Bureau, Mi	nistry of Railways				
	COUNTERPART AGENCY AT THE							
	TIME OF DEVELOPME							
	PRESENT COUNTERPA	RT AGENCY						
		F/S for transport	capacity reinforcement(double trac	cking electrification,	struc	ture reinforce	nent,	etc.)
6.	OBJECTIVES OF THE							
o. STUDY								
		Japan Railway 7	echnical Service					
7.	CONSULTANT(S)							
		Jul.1983 ~	Aug.1984 13month(s)					
8.	STUDY PERIOD	7ui.1703 ~	Aug.1764 15monui(s)					
		Between Hengy	ang and GwangchouSection 1					
			chou and BaojiSection 2					
9.								
	SITE OR AREA							
10.	MAJOR PROPOSED PR	OJECT(S)						
_	The electrification (Chengchow-Packi)							

- (1)Electrification of the track and equipment of electricity.
- Construction of a transformer substation, a track of 2,375km, 5 distribution lines.
- Replace of a distribution line, etc.
- (2)Signalisation and communication equipment.
- (3)Construction of a station yard for goods wagon: 1.6 million sq.m.
- 2. The electrification and the construction of double track.

(Hengyang - Kwangchow)

- (1)Construction of double track(514km, 67 stations)
- Construction of three tunnels
- (2)Construction of station yards in four areas.
- (3)Electrification(155km)
- (4)Signalisation and communication equipment.

EAS CHN/S 302/84 F/S

Completed or In Progress Promoting

Completed
PRESENT STATUS
Partially Completed
Delayed or Suspended
Implementing
Processing
Discontinued or Cancelled

#### Description:

(1)Hengyang-Guangzhou

Subsequent Studies:

D/D was conducted by Ministry of Railways according to Japan's F/S.

Finance:

Oct.1984 L/A 10,192 mil.Yen

(Hengyang-Guangzhou Railway Expansion Project)

Aug.1985 L/A 26,822 mil. Yen (as above II)

Jun.1986 L/A 24,491 mil. Yen (as above III)

Jul.1987 L/A 8,789 mil. Yen (as above IV)

\*Contents

Doule tracking of Hengyang-Guangzhou road (514km), construction of tunnel, electrification (155km)

Construction:

This project was completed in 1988 aiming at strengthening the transport capacity. (FY 1994 Domestic Survey)

Geological survey centering on geophysical expolaration was conducted in the Nan-ling Tunnel between Heng Yang and Guang-Zhou as a joint work by Chinese and Japanese experts.

Effect:

Annual transportation capacity between Hengyang and Guangzhow was raised from 20 million to 40 million tons by the double tracking and electrification. Train was also due to improvement of gradients and curves. The method of tunnel construction at the time of Dayan Shan Tunnel has been utilized for subway construction as well as automation and reduction of other tunnel constructions.

(2)Zhengzhou-Baoji

Subsequent Studies:

D/D was conducted by Ministry of Railways according to Japan's F/S.

Finance:

Oct.1984 L/A 7,250 mil.Yen

(Zhengzhou-Baoji Railway Expansion Project)

Aug.1985 L/A 13,258 mil.Yen (as above II)

Jun.1986 L/A 9,482 mil. Yen (as above III)

Jul.1987 L/A 31,396 mil. Yen (as above IV)

Aug.1988 L/A 7,500 mil. Yen (as above V)

\*Contents

Electrification (684km), construction of yard

Construction:

Of 684km between Zhengzhou and Baoji, the 269km section between Zhengzhou and San-men-xia was completed in 1986. After the construction of the remaing sections was promoted in accordance with the 7th five-year plan (1986-90), it was completed in 1991.

Japan's railway-yard technology is not adequate for China due to the huge railway freight in China. Automation of the north yard at Zhengzhow was done based upon Canadian technology transfer.

Effect:

After the electrification, annual transportation capacity between Zhengzhow and Baoji was raised from 40 million to 60 million tons (50%) by 80 electric locomotives purchased from Japanese firm.

And also, this led to the great increase of the capacity of coal transport from northern Hebei and north of Wei-he to eastern districts.

In the execution of this construction, various kinds of technical guidance was conducted by short-term experts dispatched by JICA.

(F/S)

			(F/S) Compiled	Mar.1990
<b>EAS</b>	CHN/A	302/84	Revised	Mar.2008
1. COU	UNTRY	China		

2.	NAME OF STUDY	Basic Plan on th	e Sanjiang Plain Agricultural Experiment Station
3.	SECTOR	Agriculture	/ (Agriculture in) General 4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME		Committee on Science and Technology, Hei Long Jiang Province
	PRESENT COUNTERPA		
6.	OBJECTIVES OF THE STUDY	Technical Study	mainly for irrigation and damages by cold weathen.
7.	CONSULTANT(S)	Agricultural Dev	velopment Consultants Association
8.	STUDY PERIOD	Sep.1984 ~	Mar.1985 6month(s)
	SITE OR AREA	Province, Bao Q	usi Cities in Hei Long Jiang bing Xian
	MAJOR PROPOSED PR		t basic technical data for agricultural development in San Jiang Plain
1.R 2.R Af	esearch on breading and esearch on farm land imp	cultivation of colorovement in a co	d-proof seeds old area with low humidity h 1985, a pilot firm was established. Technical cooperation had been carried out for 5 years since then.
	wan are transferred and	inaliaged by Clim	a's counterpart.

EAS CHN/A 302/84 F/S

	Completed or In Progress	Promoting	
	Completed		
PRESENT STATUS	Partially Completed	Delayed or Suspended	
	Implementing		
	Processing	Discontinued or Cancelled	

# **Description:**

Subsequent Studies:

Mar.1985 F/S Final report submitted Mar.1985 Basic planning study completed

Technical Cooperation Project "Sanjiang Plain Agricultural Research Center Project" (1985.9.20~1993.3.19)

After the completion of F/S, research center was established as a technical cooperation project. Technical cooperation for 5 years has been completed and the facility and all equipments were handed over to Chinese side.

The basic study on agriculture in a cold area was started in September 1986 and completed in March 1993.

# Dispatch of Experts:

After the completion of basic planning, seven long-term experts and some dozens of short-term experts were dispatched as technical cooperation. Field improvement work, setting up of machineries and equipments were completed.

(F/S)

Compiled Mar.1988

CHN/S 303/84 **EAS** Revised Mar.2008 1. COUNTRY China Tianjin, Shanghai and Guangzhou Telecommunication Expansion Project NAME OF STUDY SECTOR Communications & Broadcasti / Telecommunication TYPE OF STUDY F/S 3. 5. Ministry of Posts and Telecommunications of the People's Republic of China COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Elaborating the Telecommunications Network Expansion Project in Tianjin, Shanghai and Guanzhou, three major coastal cities of the People's Republic of China, and carrying out its feasibility study. OBJECTIVES OF THE STUDY Japan Telecom. Eng. and Consulting Service 7. CONSULTANT(S) Jul.1983 Jun.1984 11month(s) 8. STUDY PERIOD Tianjin(area 46.3 sq.m: pop.778), Shanghai(area 35.3 sq.m: pop.1,181), and Guangzhou (area 318.3 sq.m: pop.5,987) \* Population:ten thousands, 1982) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Tianjin Shanghai Guangzhou 9 1)Exchange 22 10 (Stations) Terminals 70,000 40,000 40,000 2)Transmission 41 31 13 (areas) 3)Subscriber cable 22 9 10 (stations) (1226km) (2146km)(2556km) 4)Junction cable 20 19 12 (areas) (97.2km)(82.2km)(75.2km)5) Mobile Communication 0 O

天津·上海·広州電気通信網改造計画

EAS CHN/S 303/84 F/S

PRESENT STATUS

Completed or In Progress
Completed
Partially Completed
Partially Completed
Implementing
Processing
Discontinued or Cancelled

# **Description:**

- 1. Size of effect: Being recognized as a national project in order to establish efficient economy.
- 2. Degree of priority: National project.
- 3. Other: Strong support by the Japanese agencies concerned.

# Subsequent Studies:

Oct. 1987 D/D completed (Japan Telecommunications Engineering and Consulting Service)

# Finance:

Oct.1984 L/A 1,154 mil.Yen (Tianjin, Shanghai and Guangzhou Telecommunication Network Expansion Project)

Aug.1985 L/A 9,235 mil. Yen (as above (II))

Jun.1986 L/A 7,916 mil. Yen (as above (III))

Jul.1987 L/A 9,398 mil. Yen (as above (IV))

Total cost: 35 bil. Yen (foreign currency)

# Realized Project:

Target area: Tianjin, Shanghai, Guangzhou Contents:1)Exchange terminals (150,000)

2)Cable

3)Mobile Communication

Tianjin Shanghai Guangzhou

Contractor Sumitomo Shoji Nissho Iwai Marubeni

Sub Contractor NEC Fujitsu NEC

(F/S)

Compiled Mar.1990

**EAS** CHN/S 304/86 Revised Mar.2008 1. COUNTRY China Port Development Project in Dapeng Bay 2. NAME OF STUDY 3. SECTOR Transportation / Port TYPE OF STUDY F/S 5. Ministry of Transportation COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Zoning plan of the coastal area Long term M/P F/S on the develoment plan aiming at the year 1990 **OBJECTIVES OF THE** STUDY The Overseas Coastal Area Development Institute 7. CONSULTANT(S) Toko Engineering Consultants Ltd. Jan.1986 Mar.1987 14month(s) 8. STUDY PERIOD Dapeng Wang, Kwang Tung prefecture 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) The 1st Phase Plan for the year of 1990 is as follows: Unit - Wharf m 920 - Berth 2(25,000DWT) 1(15,000DWT) 3(1,000DWT) - Revetment 500 m - Breakwater m 100 - Dredging X 1,000cu.m 2,860 - Reclamation X 1,000cu.m 4,210

大鵬湾港湾整備計画

EAS CHN/S 304/86 F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

# **Description:**

# Finance:

Jan.1991 L/A 7,613 mil.Yen (phase I) Oct.1991 L/A 3,691 mil.Yen (phase II) Oct.1992 L/A 3,377 mil.Yen (phase III)

\*Contents of OECF loan

-Construction of 6 berths handling cargo volume of 2.8 million tons

(1 container berth, 1 multi-purpose berth, 1 bulk berth, 3 general berth) and port facilities

-Railway(24km)

-Road(72km)

### Construction:

1988 Commencement of reclamation and dredging

Oct.1989 Opening of trial operation on 3berths

(1,000; 3,000; 10,000 tonnage)

# (FY 1992 Overseas Survey)

The Phase I construction of 2 container berths and 1 multi-purpose berth is in progress. (Completion is scheduled at the end of 1993)

1990 Commencement of construction of railway and road

# (FY 1992 Overseas Survey)

Construction of road(72km) is in progress. (Completion is scheduled at the end of 1993) Construction of railway(25km) is in progress. (Completion is scheduled at the end of 1993)

(F/S)

Compiled Mar.1990 **EAS** CHN/S 305/86 Revised Mar.2008

1.	COUNTRY	China		
2.	NAME OF STUDY	Subway Project	of Shanghai	
3.	SECTOR	Transportation	/ Railway	4. TYPE OF STUDY F/S
5.	COUNTERPART AGENTIME OF DEVELOPME	CY AT THE	Science and Technology Commission of Shanghai Mur Engineering Administration,etc.	
	PRESENT COUNTERPA			
6.	OBJECTIVES OF THE STUDY	F/S for construc	ting a subway to improve urban transport in Shanghai	
7.	CONSULTANT(S)		Fechnical Service	
8.	STUDY PERIOD	May.1985 ~	Aug.1986 15month(s)	
	SITE OR AREA	-	s suburbs(Shanghai new station-Xin Longhua)	
10.	MAJOR PROPOSED PR	OJECT(S)		

Construction of a express-railway line (underground line) between xinlonghua station and Shanghai new station --- Major purpose is the improvement of the traffic situation of Shanghai city.

- Between Xinlonghua and Shanghai new; 13.5km
- Structures; station part middle part sealed tunnel
- No. of stations; 13, management facilities (including air conditioner, prevention of disaster system). passenger control facilities.
- line facilities; floors, ties, rails, etc.
- Electric facilities; power transformation facilities, contact wire facilities, power transmission and distribution wire facilities, signaling facilities planning, telecommunications facilities.
- Rolling stocks; section to be opened (the year 1991)138 cars. Section to be planned north-south line facilities (xinlonghua -Ji Yun Lu) (the year 2013) 392 cars.
- Rolling stock bases 1) base facilities; facilities for main pare inspection or overhaul, temporary repair, trip inspection, regular inspection, car cleaning facilities, storage track.
- 2) Inspection and repair facilities; management office, workshop building, wheel grinding shop, maintenance base, other buildings.
- Operational safety and traffic control systems; automatic- signal bloc system, cab signal system, 1st-type electric relay system, automatic train controll system (CS-ATC), centralized train control system (CTC).

EAS CHN/S 305/86 F/S

	Completed or In Progress	Promoting
PRESENT STATUS	Completed	
PRESENT STATUS	Partially Completed Delayed or Suspended Implementing	Delayed or Suspended
	Processing	Discontinued or Cancelled

# **Description:**

#### Subsequent Studies:

The review of the F/S and the basic designs were undertaken by the Chinese authorities.

#### Finance

The total planned budget for the project is 2,543 bil.yuan, of which 1.58 bil.yuan is domestic financing and US\$ 262 mil.is foreign borrowing.

Foreign fund (US\$ 26.2 billion) was mainly financed by Germany. Trains, Telecommunication devices, Station facilities, and electric facilities were also purchased from Germany. Loans from the United States and France were also made. Traffic-signal-control systems, disaster-prevention and waterproof facilities were purchased by US loans, and cutting/sharpening machines were by French loans.

# OECF loan was not requested.

Local fund was previously prepared by Shanghai Public Bureau of Subways. Afterwards a municipal bureau under Shanghai City Office took over the position to procure and repay the fund since September 1994. The municipal bureau is an original organization of Shanghai City to operate and manage funding for the projects under the jurisdiction of the City.

## Modified Point:

(FY 1992 Domestic Survey)

The subway plan (Route 1, South-north line) was once proposed 13.5km between Xin Longhua-Shanghai. But it was extended to 15km because one section was added between Xin Longhua and Jin-Jiang Dong Yuan.

Oct.1994 completed

May.1995 useed

# Utilization of outputs:

As the report of this F/S is studied in detail, some part of it could be utilized for D/D. Moreover, this F/S report was translated into Chinese and used as a textbook for other cities subway projects.

(M/P) Compiled Mar.1990 **EAS** CHN/S 101/87 Revised Mar.2008

1.	COUNTRY	China					
2.	NAME OF STUDY	Shanghai Air Po	ollution Control				
3.	SECTOR	Administration	/ Environm	ental Problems	4.	TYPE OF STUDY	M/P
5.  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		CY AT THE	Department of Environ	ment, Municipality of Shanghai	i		
	PRESENT COUNTERPA						
6.	OBJECTIVES OF THE STUDY	Air Pollution Co	ontrol				
7.	CONSULTANT(S)		ants International vsis and Computing				
8.	STUDY PERIOD	Jan.1986 ~	Feb.1988	25month(s)			
9.	SITE OR AREA	Shanghai city					
10.	MAJOR PROPOSED PR	OJECT(S)					

- Installation of desulfurization equipment at the power plant
- Large-scale concentrated power supply

(for factories in the western part of Shanghai City)

- Introduction of various pollution control devices and measures at 301 factories of Shanghai Proposed master plan for air pollution control leading to the year 2000 is as follows;

Reduction policy	Reduction Factory	Initial of SOx	Investment
		(ton/year)	(million yuan)
Energy Saving,	58	496	14.53
Coal Pelleting,	14	196	0.84
Fuel Change (Coal to oil),	1	12,732	0.01
Factory removal,	4	2,519	225.63
Flooting floor combustion,	133	23,087	389.80
Desulfurization of the factories,	73	16,891	208.61
Desulfurization of the power plants	s, 1	238,301	396.03
Large-scale Concentrated power su	ipply. 21km2	12,233	336.00
Total		306,897	1,574.88

上海市大気汚染対策

EAS CHN/S 101/87 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

# **Description:**

(FY1996 Overseas Survey)

All the strategies and measures formed in the project have a progress in different scales. Some areas have more work completed, like factories relocation, energy saving, etc.

Finance:

Self-financing of enterprises/Government fund

Construction/Implemented Project:

The engineering for increasing the gasitification rate has been implemented in a big scale. Pudong Gas Plant was constructed and put into the operation during the Eight-Five Year Plan.

From 1988, shanghai Environment Protection Bureau continues the efforts for the work of dust/smoke controlling. Actions were taken for renewing the dust remover, which improved the dust removing efficiency for Shanghai average from 70% to 80%. In another hand, some of the extensive technical upgrade work has been done towards the dust remove facilities for bigger size industrial stoves in the factories of cement plants and steel works. In air quality management, it has been established an operational management standard, which makes the possible to the quantified and scientific management.

Effect:

The concentration of both TSP and SO2 is reducing down every year.

Situation:

(FY1991 Overseas Survey)

The study results led to the establishment of the Shanghai City Program for the Protection against Air Pollution.

**(F/S)** 

Compiled Mar.1990

$\mathbf{E}$	AS CHN/S 3	06/87				Revised	Mar.2008
1.	COUNTRY	China					
2.	NAME OF STUDY	Shanghai-Nanjii	ng Expressway Construction Pr	oject			
	SECTOR	Transportation	/ Road		4. TYPE OF STUDY F/S		-
5.			Highway Planning & Design I	nstitute, Ministry of Com	nunication		
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY							
	PRESENT COUNTERPA	ART AGENCY					
		Expressway Cor	nstruction				
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	Katahira & Engi Nippon Koei Co	neers International ., Ltd.				
8.	STUDY PERIOD	Feb.1986 ~	Dec.1987 22month(s)				
9.	SITE OR AREA	Between Shang	hai and Nanjing				
	MAJOR PROPOSED PR						
and	d traffic accidents happen	s frequently. So a	d Nanjing is gone around and i new highway is intended. d cultural cities and go through	-		are always	s tied up
(1)	Extension						
- r	oute of extension; main ro						
	Zhenjja Total	ing branch route	: 10.70km : 284.74km				
- sc	ort of extension; roadwa	y	: 266.74km (93.7%)				
	bridge		: 18.00km (6.3%)				
	Standard full road for motoring;	main route	Zhenjiang branch				
(3)	Grade Design Speed (km/h) Lane Total width (m) 18 interchanges including Construction periods. section Magunic - Danyang IC Danyang IC - Wvxi Nort Wuxi North IC - Suzhou Suzhou East - Zhenru IC	express 120 4 26.0 g 1 junction are p year to sta construct 1992 h IC 1993	first 100 4 20.5 lanned rt year to start				

上海·南京間高速道路建設計画

EAS CHN/S 306/87 F/S

	Completed or In Progress	Promoting	
	Completed		
PRESENT STATUS	Partially Completed	Delayed or Suspended	
	Implementing		
	Processing	Discontinued or Cancelled	

# **Description:**

Subsequent Studies:

1990~92 D/D conducted (by both the provincial and national funds)

Finance

All the fund for this project was domestically financed. Total 5.04 billion yuan was shared by Shanghai (0.7 billion yuan) and Jiangsu State (4.34 billion yuan).

Construction:

1992 Commenced

Aug.1996 Started to operate

Detail:

(FY 1991 Overseas Survey)

Japanese technical cooperation is expected when some major technical problems arise during the construction process.

(FY 1994 Overseas Survey)

Due to rapid economic growth, huge traffic volume over the capacity of the expressway is predicted.

**(F/S)** 

Compiled Mar.1990

EA		
	COUNTRY	China Kouhokou River Bridge Construction Project
2.	NAME OF STUDY	
3. 5.	COUNTERPART AGENTIME OF DEVELOPME	
	PRESENT COUNTERPA	ART AGENCY
	-	Economic and financial analysis of the new bridge construction
6.	OBJECTIVES OF THE STUDY	
_	CONCLUENT ANTECO	Chodai Co., Ltd.
7.	CONSULTANT(S)	Pacific Consultants International
8.	STUDY PERIOD	Feb.1987 ~ Mar.1988 13month(s)
		Southern zone of Shanghai City
9.	SITE OR AREA	
Mu the ind the con	central part of Shanghai ispensable element for the corridor is some 8km. Means of the corridor is some 8km.	RC, is making great effort to develop the Pudong New Area which expands at east bank of Huangpu River flowing down in urban area. This Pudong New Area is connected only by tunnels and new transportation facilities crossing the River are e development of the Area. The project aims to construct the six lanes traffic corridor between both banks. Total length of fain bridge is cable stayed bridge having 400m center span length (total bridge length 657m). For project site aguisition stores, etc 123 thousand m2), construction of new houses (350 thousand m2), and farm land acquisition (133 thousand m2)

EAS CHN/S 307/87 F/S

	Completed or In Progress Promoting	Promoting
DD FOCED VE OVE A VENTO	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
Implementing		
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent Studies:

Mar.1988 F/S reviewed by the Urban Planning and Design Bureau of the Shanghai Municipal Government Oct.1989 D/D completed by the Urban Planning and Design Bureau and the Donji University

Finance:

Fixed cost of the project
Total cost 330 million US\$
Local cost 225 million US\$
Finance

Local 225 million US\$ ADB 105 million US\$

#### Construction:

The construction was completed as the Nanpu Bridge.

### Effect:

(FY1994 Domestic Survey)

After the opening of the bridge on Nov.1991, the number of vehicles using the bridge is steadily increasing with the progress of the Pudong Area development. Together with the completion of Yangpu Bridge between Puxi and Pudong Areas, both bridges are being used as the two major traffic corridors between the two areas.

The Pudong Area in Shanghai is developing remarkably in recent years, which means that the completion of the Nanpu Bridge greatly contributes to the improvement of investment circumstance for Pudong Area.

(F/S)

		<b>(F/S)</b>	Compiled	Mar.1990
EAS	CHN/S 308/87		Revised	Mar.2008

1.	COUNTRY	China
2.	NAME OF STUDY	Hokkou Hiraikyo Multipurpose Dam Construction Project
3.	SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	Pearl River Water Resources Commission  CY AT THE
	PRESENT COUNTERPA	
6.	OBJECTIVES OF THE STUDY	F/S on flood control, navigation and power generation.
7.	CONSULTANT(S)	Nippon Koei Co., Ltd. INA Corporation
8.	STUDY PERIOD	Jun.1986 ~ Oct.1987 16month(s) ~
9.	SITE OR AREA	Hokkou River basin, Guangzhou Province
10	MAJOR PROPOSED PR	OIFCT(S)

- Catchment area: 34.097km2
- Effective storage valume : 1,459 x 10\*6 m3
- Rockfill dam 1,887.5m long, 50m high 3,568,000 m3 in volume
- 16 radial gates (14m wide and 19.5m high) for spillway, 38,100m3 in concrete volume
- Power plants (4 units, 43.5MW each), surface type 100m(L) x 88m(W) Bulb turbine
- Navigation lock, lock with single chamber type, 190m(L) 16m(W), minimum draft depth 3m, 281,000m3 in concrete volume
- River diversion, trapezoidal channel type, design flood 15,500 m2/s, first stage cofferdam 1,560,000m3, second stage cofferdam 710,000m3
- Construction, period 7 years, cost 1,074,456 x 10\*3 Chinese yen (US\$ 298.5 x 10\*6) base year 1986

**EAS** CHN/S 308/87 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
Description :		

The project was included in the application list for the Third Yen Loan (1990-1994), but was not approved.

# (FY1991 Overseas Survey)

Presently the provincial government is conducting a preliminary design mostly in accordance with the F/S result.

The project is planned to be implemented as soon as the approval of the central government is issued, with budget from the provincial fund and a national subsidy.

(FY1994 Domestic Survey)

No progress in the form of a project.

(FY1995 Domestic Survey)

No additional information.

(Basic Study)

Compiled Mar.1990

$\mathbf{E}^{A}$	AS CHN/S 501/								Revised	Mar.2008
1.		China	•							
		Groundwater De	evelopment Pro	iect in Ti	aniin City					
2.	NAME OF STUDY	la contract De		J	,					
2	SECTOR	Social Infrastruc	eture / V	Water Dec	Ollrose Davi	lonment	1	TVDF OF CTUDY	Z Racia Study	
	SECTOR				sources Deve			TYPE OF STUDY		
5.			Science and To	echnology	y Council an	d Dept. of Geo	ology and	d Mining of Tianj	in City	
	COUNTERPART AGEN	CY AT THE								
	TIME OF DEVELOPME	ENT STUDY								
	DDECENT COLUMEDD	DE ACENON								
	PRESENT COUNTERPA	ARI AGENCY								
		G 6 1			. 1					
		Survey of water	resources to de	evelop a v	vater supply	system				
	OBJECTIVES OF THE									
6.	STUDY									
		Nippon Koei Co								
7.	CONSULTANT(S)	Japan Engineeri	ng Consultants	Co., Ltd.						
8.	STUDY PERIOD	Nov.1985 ~	Dec.1987		25month(s)					
•	51051121105	~								
		Tianjin City								
0	SITE OR AREA									
٠.	SITE ON AREA									
			T.							
	MAJOR PROPOSED PR									
	e study examined the pos						in City. l	However, the Chi	nese authorities pl	an to work
on	the project from their ow	n resources, and t	they have not y	et made tl	he detailed d	esign.				

**EAS** CHN/S 501/87 **Basic Study** In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** Finance: The Government included the D/D on ground water development in the request for the Third Yen Credit (1990 - 1994), but has been unsuccessful. Situations: (FY1991 Overseas Survey) Due to a city's own project, the problem of water supply in Tianjin for both the civil life and industrial development has basically been solved. Accordingly there is no planned project based on the study, the studied areas still have a role as potential water resources for future urban and industrial development. (FY1995 Overseas Survey) The results of this survey work are not utilized because the water resource is very far from the city and the cost to send the water is quite expensive.

(M/P)

Compiled Mar.1990

<u>E</u> /	AS CHN/S 102/88 Revised Mar.2008					
1.		China				
2.	NAME OF STUDY	Hainan Island I	ntegrated Development			
3. SECTOR Development  5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			National Planning Commission Dept. of Land, Province of Guangdong and Office of Integrated Development, Hainan District			
	PRESENT COUNTERPA	ART AGENCY				
6.	OBJECTIVES OF THE STUDY	Formulation of	a master plan through 2005.			
7.	CONSULTANT(S)		evelopment Center of Japan ants International			
8.	STUDY PERIOD	Mar.1986 ~ ~	Mar.1988 24month(s)			
9.	SITE OR AREA	Hainan Island (	(pop. 5.98 million, 33,900 sq.km)			
10.	MAJOR PROPOSED PR	ROJECT(S)				
Ba	sed on the nation's policy	which is "open-	market", the basic strategy of this project is to grow the island as the nation's largest open-economy a	area.		
- M - T - E - S - E	Agricultural development (upland crops, irrigation development, high-profit tropical crops).  Mining and industry (agro-industries, processing of mineral products, wood and fishery products, export products industries).  Tertiary industries (tourism, development of core cities).  Energy (natural gas development, power).  Selection of five economic development areas.  Establishment of total traffic control system in Haikou.  Development of Eastern Greater Haikou (construction of a bridge over Nanto-ko river).					
No	te: The cost above is the	total investments	during 1986 - 2005 (1985 price).			

EAS CHN/S 102/88 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

Finance:

(1) Road

East trunk road (272km) improvement (total cost 938 mil.yuan)

Jan.22.1991 L/A 7.1 bil.yen (Road I)

Oct.4.1991 L/A 2.602 bil.yen (Road II)

To be completed in Jun.1994

(2) Port

1.Deep-sea berth of Haikou Port

Oct.7.1991 L/A 2,589 mil.yen (Haikou port)

To be completed in Dec.1993

2. 3 berths (20,000 DWT) of Yangpu Port (total cost 320 mil.yuan)

Nov.1995 L/A 4,300 mil.yen (Yangpu Port)

\*Contents

Construction of multipurpose berth(2) and general cargo berth(2)

(3)Communication

1.Telecommunication Development (total cost 320 million yuan)

Jan.22.1991 L/A 2,663 mil.yen (Communication I)

Oct.4.1991 L/A 4.17 bil.yen (Communication II)

To be completed in Dec.1994.

# Detail

Based on this report, following assistance have been offered.

- World Bank (Dam construction, agricultural development, regional development)
- ADB (studies on the energy sector and environmental conservation)
- UNDP (studies on policy about economic structure reforms)

Activities toward the development of infrastructure and resources have been started in two core cities following the proposals of this report.

- (1)Development of airport (expecting assistance from England or France)
- (2) Establishment of Integrated Agricultural Development Experiment Area (agriculture, fish-farming, agricultural and marine products processing)
- (3)Industrial investment projects like exploitation of natural gas, the steel industry, the paper industry, are included in the eighth
- 5 year plan. To realize these projects, negotiations with foreign companies are being made.
- (4)Development of business area and road network based on the M/P of Haikou City
- (5)Development of the trade center area of Haikou.
- (6)Development of the area used to be Haikou airport.

(M/P+F/S)

Compiled Mar.1990 **EAS** CHN/S 201B/88 Revised Mar.2008 1. COUNTRY China Dalian Port Development Project 2. NAME OF STUDY 3. SECTOR / Port 4. TYPE OF STUDY M/P+F/S Transportation Traffic Dept., Dalian Port Authority COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY Specific improvements for Old Port and a development plan for a New Port at Daiyu Bay 6. OBJECTIVES OF THE STUDY The Overseas Coastal Area Development Institute 7. CONSULTANT(S) Nippon Koei Co., Ltd. Apr.1987 Oct.1988 18month(s) 8. STUDY PERIOD Dalian Port(1986 throughput of 44.3 million tons) and Daiyou Bay 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) <M/P>(1)Construction of a new port in the Daiyou Bay by the year 2000 (15 berths, breakwater, access railway and road) (2) Construction of the new port by the year 1995 (10 berths and access railway and road) (3)Improvement of the old Dalian Port (berth for passenger boats, wharves, information system for container management) <F/S>(1)Wharfs (1,440 m) Berths 2(50,000DWT) 3(20,000DWT) 1(15,000DWT) (2) Temporary and reclamation revetment (1,150 m) (3)Dredging (5,145 m) (4)Reclamation by land excavation (3,070 m) (5)Reclamation by sea-bed sediment (772 m) (6)Pavement of roads and yards (250,800 sq.m)

EAS CHN/S 201B/88 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

(1)Phase I (Construction of first 4 berths)

Finance: World Bank Construction:

Aug.1987 Commencement of shore protection works

Opening of trial operation on a container berth and a multi-purpose one.

Dec.1992 Opening of operation on all 4 berths

(2)Construction of second 6 berths

The loan agreement of 6 berths in the Daiyou Bay had not been realized due to the Tianamen incident, but was signed in FY 1994.

Finance:

Jan. 1995 L/A 6,655 mil.Yen

(Dalian Port Dayao Bay First Phase Construction Project)

(M/P+F/S)

Compiled Mar.1990 **EAS** CHN/A 201B/88 Revised Mar.2008

$\overline{}$								
1.	COUNTRY	China						
2.	NAME OF STUDY	Lujingxiang Mo	iang Model Stock-Farming Project in Gansu Province					
3.	SECTOR	Animal Husband	l Husbandry / Animal Husbandry 4. TYPE OF STUDY M/P+F/S					M/P+F/S
5.	COUNTERPART AGENTIME OF DEVELOPME		National Scien	ntific Technology	Committee, Ministry	of A	nimal Husbandry o	f Kansyuku Region
	PRESENT COUNTERPA	ART AGENCY						
6.	OBJECTIVES OF THE STUDY	To elaborate a master plan as well as to carry out a feasibility study for the execution of integrated agricultural and livestock development in Lujingxiang region with 81,800ha.  OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)	Japan Agricultural Land Development Agency						
8.	STUDY PERIOD	Oct.1987 ~	Mar.1989	17month(s)				
9.	SITE OR AREA	8 villages and 61 of Kanshuku Re			ination center of Mins	san w	hich surround east	Rosei village of Min district
10.	MAJOR PROPOSED PR	OJECT(S)						

# 10. MAJOR PROPOSED PROJECT(S)

# <M/P>

- 1. Grassland establishment: meadow 6,444ha, pasture 899ha
- 2. Road development for grassland management and marketing: asphalt pavement 48.5km, sediment pavement 106.1km
- 3. Fence setting for proper management of tame pasture 412km
- 4. Introduction of machineries for grassland management and meadow cutting: tractor 55 units etc.
- 5. Machinery maintenance center
- 6. Cattle barn and ensilage for non-grazing season: 181 paddocks
- 7. Artificial insemination center for animal improvement
- 8. Feed mising plant for stable supply of superior grain feed

# <F/S>

- 1. Verification research and diffusion: research and diffusion center in sub-grassland No. 5 and experimental stock-farm in No.6
- 2. Grassland establishment: meadow 1,630ha, pasture 242ha
- 3. Livestock facility and machinery necessary for the items mentioned above
- 4. Road development: main and branch roads in the study area 47km
- 5. Drainage improvement: 5.1km of drainage channel in sub-grassland No.6
- 6. Meet processing plant
- 7. Rural development: water supply, electrification, education and medical service in the area

EAS CHN/A 201B/88 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Technical Cooperation through Mini-Project Scheme:1990.6.1~1994.5.31

"Swine Cenetis and Breeding"

#### Background:

## (FY 1992 Overseas Survey)

A research cooperation (study on production technology of beef cattle and feed) as a mini-project based on the results of this Development Study is under way. 3 long-term experts and 7 short-term experts have been dispatched. Main items of the study are 1) improvement of beef cattle breed and breeding management and 2) improvement of a grassland.

The following construction works were completed with finance of the local funds: an experiment center with 30 rooms, 2 breeding farms (200sq.m), 6 breeding farms (1,200sq.m), artificial insemination facility (40sq.m), offices and a dinning room (540sq.m).

The Chinese side plans to execute the following projects to widespread the satisfactory results obtained by this study among farm houses.

- 1) Establishment of a company group with beef cattle production firms, 2) Establishment of Technical Service Center,
- 3) Construction of basic facilities, 4) Establishment of efficient and scientific beef cattle production system

The Chinese side reduced cost of investment in basic facilities from 68.39 million yuan suggested by the Development Study to 42.05 million yuan. A half of the investment cost (21.025 million yuan) will be requested to the Japan's Grant Aid.

#### (FY 1997 Domestic Survey)

After the completion of Mini-project type Technical cooperation, Chinese side requested Project type technical cooperation newly.

But the realization of the project seems to be difficult owing to other projects to be financed.

## (FY 1995 Overseas Survey)

The peoples' government of Gansu Province much appreciates the results of this survey works of the project, however, is anxious about to find the financial resources. At present, Japanese grant aid has been requested for the project "to recover the balance of ecology and to develop the resources of animal husbandry" and for the mini-project. "Transplantation of the embryonic region of cows."

### (FY 1997 Overseas Survey)

The region where mini-project was implemented suffers extreme poverty.

Technical cooperation is necessary continuously because only one fifth of the plan was implemented. So far, technical guidance has good results.

Gansu Province submitted request for grant aid assistance (approx. 500mil.Yen) to the central government in March, 1995.

# (FY 1998 Domestic Survey)

There are many projects to be requested for grant aid assistance. Therefore, it seems difficult to realize the proposed project.

**(F/S)** 

Compiled Mar.1990

EA			2008
1.	COUNTRY	China	
2.	NAME OF STUDY	Irrigation Development Project in Northern Hubei	
	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME		
	PRESENT COUNTERPA	RT AGENCY	
		Irrigation Development	
6.	OBJECTIVES OF THE STUDY		
7.	CONSULTANT(S)	Taiyo Consultants Co., Ltd. Japan Engineering Consultants Co., Ltd.	
8.	STUDY PERIOD	Jul.1987 ~ Jun.1988 11month(s)	
<b>10.</b> In I	Sh Irrigated area(ha) 14 Pumping station	ce where there are frequent typhoons, the F/S of the projects was completed to provide stable irrigated agriculture.  Yintan (Qingquangou)  140,000  1200  6000  82.2 1,703.2  5 2	

湖北省北部農業水利開発計画

EAS CHN/A 303/88 F/S

Completed or In Progress Promoting

Completed
PRESENT STATUS
Partially Completed
Delayed or Suspended
Implementing
Processing
Discontinued or Cancelled

# **Description:**

(1)Shitaisi Area

Subsequent Studies:

May.~Aug.1990 Basic design study

Finance:

Jul.1.1991 E/N 1,635 mil.Yen

(Project for Improvement of Agricultural Water

Supply in North District of Hubei Province)

The Government of Japan approved donation of 13 pumps out of 23 pumps and incidental machines. Public engineering/construction works are done by the Chinese side. Construction:

a) An alteration of the Intake Plan from 5.5cu.m/sec estimated by the JICA Study to 8.4 cu.m/sec. b) Installation of 3 pumps at the 1st class station is completed. c) Installation of 3 pumps at the 2nd class station is in progress. d) Installation of 3 pumps at the 3rd class, the 4th class and the 4-1 class stations is expected to end in March 1993. e) Construction of the bridge for canals is delayed due to lack of finance. f) Construction of power stations is in progress. g) Construction of all irrigation facilities is scheduled to end in 1995.

### Demand for Japan:

Dispatch of 3 short-term experts (management, pump, electricity) at the time when the operation starts.

(2)Yintan Area

Finance:

Own fund

Japanese Grant Aid is expected for 4 pumps (approx. 500 million yen)

and provision of equipment for model irrigation area.

Construction

a) The Intake Plan was altered from 60 cu.m/sec estimated by the JICA Study to 87 cu.m/sec due to 20,000ha increase of the proposed irrigation area b) Completion of buildings at the pumping station c) Installation of 8 out of 12 pumps.(cost: 2 bil. yuan) Started operation. d) Rest of construction work is discontinued due to lack of finance

Aug.1994 Completed

**(F/S)** 

Compiled Mar.1990

EA	S CHN/S 3	309/88	Revised	Mar.2008
1.	COUNTRY	China		
2.	NAME OF STUDY	Guanyinye Reservoir Project	<del></del>	
	SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S		
5.		Bureau of Water Resources and Electric Power, Liaoning Province		
	COUNTERPART AGEN	NCY AT THE		
	TIME OF DEVELOPME	ENT STUDY		
	PRESENT COUNTERPA	ART AGENCY		
		Economic evaluation of Guanyinye Dam and technology transfer of the RCD method		
6.	OBJECTIVES OF THE			
0.	STUDY			
		Nippon Koei Co., Ltd.		
7.	CONSULTANT(S)	Dam Engineering Center		
		1 1007		
8.	STUDY PERIOD	Apr.1987 ~ Oct.1988 18month(s)		
		~		
		Taizi River, 40 km upstream from Benxi City, Liaoning Province		
		Tuzzi Idvoi, 40 kiii upsucum Hom Benzi City, Endoming Hovinec		
	OFFICE OF A PERA			
9.	SITE OR AREA			
10	144 TOD DDODOGED DD	PO TECTE(I)		
	MAJOR PROPOSED PR eservoir	ROJECI(S)		
		al amount of water 2,168 million cu.m)		
(3	ize 2,705 sq.kiii, tile tota	ar amount of water 2,100 minion cu.my		
2)D	am (height 82m, length 1	1,040m, width 10m, volume 1.97 million cu.m)		
3)H	lydro-power plant (3 unit	its of 6,500kw each)		
4)S	ub-dam (height 36.2m, le	length 194m, volume 88,000 cu.m)		

EAS CHN/S 309/88 F/S

	Completed or In Progress	Promoting
DDECENTE COLATINA	Completed	
PRESENT STATUS	Partially Completed Delayed or Suspended	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent Studies:

E/S undertaken by Nippon Koei Co. and Dam Engneering Center

#### Finance

About 50% (18,200 million yen) of the total amount of constructing cost is derived from Japanese OECF loan.

(Local Currency:1,124 mil.Yuan)

The Second Yen Loan (1985-1989)

Aug. 1988 L/A 2,846 mil. Yen (Dam construction I)

May.1989 L/A 8,936 mil. Yen (Dam construction II)

The Third Yen Loan (1990-1994)

 $Nov. 1990\ L/A\ 6,445\ mil.\ Yen\ (Dam\ construction\ III)\ for\ construction,\ equipment,\ generators,\ early\ flood\ warning\ system,\ etc.$ 

\*Components of OECF Loan

1.Main-dam(Gravity concrete type, Height 82m, Length 1,140m, the total amount of water 2,168 million cu.m)

2.Sub-dam

3.Hydro-power plant(3units of 6.5MW each)

4.Electric delevery line(4.5km, 66kv)

5.Flood pre-caution system

# Construction:

The Second Yen Loan

Spring.1990 Construction commenced

Dec.1995 Completed

The Third Yen Loan

Spring.1992 Commenced

Dec.1995 Completed

On Sep.28,1994 reservoir impounding was commenced by closing the gate of temporary bypass conduit.

Constrcution Trader:Hazama-Gumi

### Effect

By the end of 1996, total 150mil.kw/h of power was generated and 1.4 billion m3 of water was impounded.

**(F/S)** 

Compiled Mar.1990

EA			Revised	Mar.2008
1.	COUNTRY	China Beijing Airport International Terminal Area Development		
2.	NAME OF STUDY			
3. 5.	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
	·	Development Plan for a passenger terminal of Beijing Airport		
6.	OBJECTIVES OF THE STUDY			
		Japan Airport Consultants, Inc.		
7.	CONSULTANT(S)			
8.	STUDY PERIOD	Mar.1988 ~ Jan.1989 10month(s) ~		
		Beijing Airport		
9.	SITE OR AREA			
	MAJOR PROPOSED PR			
	ssenger terminal expansion expansion (see section 2) assenger terminal 9,000 expansion (see section 2).			
	dministration building 9,000			
-St	aff housing (family, singl	e use) 65,000 sq.m		
	ar park extension 41,700 ower substation extension			
		s (expansion) 2,700 cu.m x 2		
	wage treatment 3,300 cu			
	ump pit treatment & disportant disportant refueling tanks 3,5			
-Ap	oron expansion, loading 1	9 night stay 6 positions		
-Ut	tilities (power, boiler 65t/	hr x 5, generator 3,000KW x 3, gas, etc.)		

北京首都空港施設地区拡張計画

EAS CHN/S 310/88 F/S

	Completed or In Progress	Promoting
DDECENTE COLATELIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# Description:

Subsequent Study:

Apr.1991~Dec.1994 B/D and D/D

Major points of revision on JICA's F/S are as follows:

1.passenger terminal expansion from 120,000sq., to 268,000sq.m,

2.plane arrival/departure spot 25 ---> 36

3.the shape of the passenger terminal change into H-shaped,

4.rise of estimated total cost from 2.2 bil.yuan to 9.1bil.yuan (only for passenger terminal)

# Finance:

Sep.1993 L/A 8,106 mil.Yen (860 mil.Yuan)

(Beijing Airport Improvement Plan (I))

Nov.1995 L/A 13,435 mil. Yen (Beijing Airport Improvement Plan (II))

Dec.1996 L/A 8,459 mil. Yen (Beijing Airport Improvement Plan (III))

Local Fund: Approximately 60,000 mil. Yuan (FY 1996 Domestic Survey)

(FY 1997 Domestic Survey)

In addition to basic civil works, baggage facility and boarding bridge will be constructed by Chinese fund and passengers guidance facility and administration system will be established by yen loan.

# Construction:

Oct.1995~Oct.1999 Implemented

Contractor / local

# Progress:

(FY 1996 Overseas Survey)

-New terminal building: Fundation work completed such as earthwork

-Infield road (cargo road):Completed

-Roads in front of the terminal building:50% of foundation work completed

-East runway rebuilt project: Completed

(FY 1997 Domestic Survey)

As for a passengers terminal, steel frame was attached for a roof. Installation of shingles will be started.

(FY 1998 Domestic Survey)

Terminal building: Exterior decoration will be completed by the end of Jan.1999. Construction for heating and other facilities has almost been completed.

Packing building: Construction has almost been completed. Installation of facilities for collecting charge is underway.

Terminal building curve side: Construction of apron has been completed.

# Operation/Management:

(FY 1998 Domestic Survey)

Capital Airport Authority will establish a company responsible for operation and management.

# Background:

Beijing Capital International Airport Authority invited concept design proposals in December 1992 for construction of Beijing International Airport terminal building from 4 airport design consulting firms including foreign firms. The accepted concept design was bought out by the Government and the detailed design was developed from this concept design. A group of Chinese design houses commenced the design development work in the middle of 1993.

(F/S)

			(F/S)		Compiled	Mar.1991
ΕA	AS CHN/A 3	304/89			-	Mar.2008
	COUNTRY	China				
2.	NAME OF STUDY	Integrated Agricultural Infrastructure Development in Dong Ting Lake Area in Hunan Province				
3.	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY F/S		
5.			Hunan Science and Technology Commision			
	COUNTERPART AGEN TIME OF DEVELOPME					
	PRESENT COUNTERPA	ART AGENCY				
		Feasibility stud	y on the comprehensive water utilization and agric	cultural development plan.		
6.	OBJECTIVES OF THE STUDY					
7.	CONSULTANT(S)	Sanyu Consulta Japan Engineer	nts Inc.			
8.	STUDY PERIOD	Aug.1988 ~	Feb.1990 18month(s)			
9.	SITE OR AREA		of Hunan Province Yangzi River middle basin)			
10.	MAJOR PROPOSED PR	ROJECT(S)				
	Model Block at Nan-da-ti	. ,	1			
	5,400ha: Nan-da area 893		Zhou area 6,470 ha)			
	Drainage facilities for dik					
	Electric-transmission for 2		age Pump Station			
	New pump station at the N					
- (	On-farm level irrigation la	and in the Huang	Mao Zhou district			
2)N	Model Block at Shi-ji-hu-	ti Area (105ha)				

- Drainage facilities and Horticultural facilities for technical Development
   Experimental Center
   Pump station land and other auto-irrigation facilities
   Tunnel house

- st Implementation period below is 5 years.

EAS CHN/A 304/89 F/S

PRESENT STATUS

Completed or In Progress
Completed
Partially Completed
Partially Completed
Implementing
Processing
Discontinued or Cancelled

# **Description:**

(1)Model Block at Nan-da-ti Area and Shi-ji-hu-ti Area

Subsequent Study:

Feb.~Jun.1995 B/D (FY 1995 Domestic Survey)

Jul.~Aug.1997 Study for Promotion. (FY 1997 Overseas Survey)

Finance

1. Project cost 2.55bil.yen (local cost / 1.35bil.yen) (FY 1991 Overseas Survey)

Project covered by local cost:

Agriculture project mainly based on civil work.

Project covered by foreign cost:

Construction of infrastructure.

2. 1.1bil.yen of grant aid was approved in June 1994.

(FY 1992 Overseas Survey)

3. The provision of the Japanese grant aid

assistance has been suspended. (FY 1995 Overseas Survey)

- 4. If in case of the Japanese grant aid, becomes available within the year of 1996, it will be able to complete the construction works until 1997. (FY 1995 Overseas Survey)
- 5. The provision of the Japanese grant aid assistance has been started again.

Nov.1997 E/N 1,127mil.yen (provision of machinery and materials)

\*Contents of the project

Renovation of drainage irrigation facilities, reinforcement of bank, improvement of flood control telecommunication facility, in house vegetable growing model project, reinforcement of horticultural technology development center and agricultural technology promotion center, hog raising project and special aquaculture. (FY 1997 Domestic Survey)

Cost born by Chinese government: 7,222,000 yuan (approx. 103.78 million yen)

\*Contents: additional improvement works, cost for inland transportation, and cost for installation and adjustment.

Provision of machinery and materials:

(FY 1998 Domestic Survey)

July 1998 ~ March 1999

\* Machinery and materials provided: machines for construction, vehicles, irrigation facilities, communication facilities, materials for horticultural development, agricultural technology extension center.

# Construction:

(FY 2000 Overseas Survey)

Novt.1997~May 1999

Works implemented with own fund.

- 1) Nan-da-ti Area
- -The dike improvement work is in progress.
- -The repair of drainage facilities was completed. (89 places)
- -The drainage construction plan was modified in order to reduce the cost of constructing substations
- 2) Shi-ji-hu-ti Area
- -Construction of the electric-transmission facilities was completed.
- Construction of irrigation canal & farm land is in progress.
- -The drainage work was completed. (155km)

# Operation and management:

(FY 1998 Domestic Survey)

Both Bureau of Water Supply and Bureau of Agriculture, Yuanjiang City are to be in charge.

# Effects:

(FY 1998 Domestic Survey)

- 2,000 ha of the cultivated land in the Nan-da-ti Area will avoid the damage by flood, the damage by flood on houses and roads will be alleviated.
- Increase in horticultural products will be expected.
- Technology will be extended to the farmers in the Nan-da-ti Area.

(F/S)

Compiled Mar.1991

**EAS** CHN/S 311/89 Revised Mar.2008 1. COUNTRY China Construction Projects of the Three Ports 2. NAME OF STUDY 3. SECTOR / Port TYPE OF STUDY F/S Transportation 5. Ministry of Communications COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Execution of the feasibility study on three ports development project. **OBJECTIVES OF THE** STUDY The Overseas Coastal Area Development Institute 7. CONSULTANT(S) Yachiyo Engineering Co., Ltd. Feb.1990 Dec.1988 14month(s) 8. STUDY PERIOD 1.Port of Quihuandao; 2.Port of Lianyungang; and 3.Port of Shijiu 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) The main project relating port facilities for the year of 1995 are as follows: Unit 1)Quihuandao Port 2)Lieyun Port 3)Shijiu Port Breakwater (m) 300 876 Wharf 1,802.5 1,100 (m) 900 1(20,000DWT) Berth 2(35,000DWT) 6(1.5DWT) 3(20,000DWT) 4(15,000DWT) 2(15,000DWT) 610 1,865 1,605 Revetment (m) Dredging x 1,000cu.m 4,400 9,816 1,005 Reclamation x 1,000cu.m 3,230 3,775 2,596

三港湾整備計画

**EAS** CHN/S 311/89 F/S

Completed or In Progress Promoting Completed PRESENT STATUS Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled

# **Description:**

Finance:

(FY 1992 Overseas Survey, FY 1994 Domestic survey)

(1)Shijiu Port Second Phase Construction Project

Oct.1991 L/A 2,506 mil. Yen (I)

Oct.1992 L/A 3,583 mil.Yen (II)

\*Major Components

3 berths (15 kilo ton class), 2 berths (10 kilo ton class)

(2)Liangyungang Port Xugou Area First Phase Construction Project

Oct.1992 L/A 5,900 mil.Yen

\*Major Components

6 berths, Port equipment

(3)Qinhuangdao Port E Berth Construction Project

Oct.1992 L/A 3,418 mil.Yen (I)

Jan.1995 L/A 3,041 mil.Yen(II)

\*Major Components

7 berths

(4)Qinhuangdao Port F Berth Construction Project

Aug.1993 L/A 3,944 mil.Yen (I)

Jan.1995 L/A 7,178 mil.Yen(II)

\*Major Component

3 coal terminals (30 mega ton / year)

# Construction:

(1)Shihjiu Port

(FY 1992 Overseas Survey, FY 1994 Domestic Survey)

Extension of the wharf(780m) was completed. Construction of the breakwater was completed in 1990. 5 berths are scheduled to be completed in 1995.

(2)Qinhuandao Port

(FY 1992 Overseas Survey, FY 1994 Domestic Survey)

The entire plan incorporated in the long-term port development plan was approved in Hebei and the Dept. of Traffic.

(FY 1999 Overseas Survey)

Most of the construction works of wharf has completed. The construction will be finished by the end of 2001 and will start its operation.

(3)Lianyun Port

(FY 1992 Overseas Survey, FY 1994 Domestic Survey)

Some parts of the plan were altered by the national examination.

May 1993 Commencement of construction

Jun.1996 Completion scheduled

# Detail:

(FY 1992 Overseas Survey, FY 1994 Domestic Survey)

The Phase 2 construction of the three ports(Qinhuandao, Lianyun, and Shijiu) is the subject of this study. Construction of the Phase 1 at all three ports was completed in the past. The study has already been completed by the Chinese side, and the study was incorporated in the 7th Five Year Plan and requested to the OECF's 3rd Yen Credit Loan.

(F/S)

Compiled Mar.1991

CHN/S 312/89 **EAS** Revised Mar.2008 1. COUNTRY China Construction Project of Wuhan/ Tanhe Civil Airport 2. NAME OF STUDY SECTOR / Air Transportation & Airport TYPE OF STUDY F/S 3. Transportation 5. Civil Aviation Administration of China(People's Government of Wukan City) COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Construction of the new airport. OBJECTIVES OF THE STUDY Japan Airport Consultants, Inc. 7. CONSULTANT(S) Nov.1988 Mar.1990 16month(s) 8. STUDY PERIOD Wuhan City(Population 6.244 million, Area 8392 sq.km) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Construction of the following airport facilities and other related facilities; Runway(3,000m), Taxiway, Apron(19 Spots), Passenger Terminal Build(Total Floor Area 27,300 sq.m). Cargo Terminal Build, Maintenance Facility, G.S.E. Facility, Roads and Car park, Drainage Facility, Radio-Nav. Aids, Airfield Lighting System, Air Traffic Control Facility, Communication Facility, Meteorological Facility, Electric Power Supply Facility, Water Supply Facility, Electric Facility, Exclusive Railway, Sewerage Disposal Facility, Fuel Supply Facility, Air-conditioning Facility, Rescue and Fire-Fighting Facility, Access Road etc.

武漢天河空港建設計画

EAS CHN/S 312/89 F/S

	Completed or In Progress	Promoting
DDECENTE COLATELIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Subsequent Studies:

1991 After F/S was completed, detailed design was presented by 8 Chinese consultants (Civil Aviation Administration of China and South China Institute of Architectural Design as central members), based upon the F/S.

### Finance:

Mar.1991 L/A 6,279 mil.Yen

(Construction Project of Wuhan/Tanhe Civil Airport)

\*Contents

1.Arrival/Departure Area(Runway 3,000m x 45m, Terminal Apron 8,700m2)

2. Terminal Area (Passenger Terminal 25,000m2, Cargo Terminal 3,000m2)

3. Airport utility, related facilities, access road, etc.

# (FY 1994 Overseas Survey)

Total cost of the construction is 655 million yuan. Funding details are as follows:

OECF (the third loan) 5 billion yen (200 million yuan)

Chiness Government Wuhan City Office 100 million yuan 90 million yuan

The rest (265 million yuan) will be financed by Wuhan City Office, with a condition that the development right of South Wuhan Airport will be given to the city authority.

#### Construction:

Dec.16.1990 ordered to start

The first architecture section of Wuhan City started construction in 1992. One of the most critical difference between the F/S and the detailed design was runway extension from 3,000m to 3,400m. The reason of the change was to cope with arrival/departure of B747-400 (international flight) which was bigger than B747- 200 expected.

Oct. 1992 Runway and a part of Terminal Building, completed the end of 1993 Airport facility, completed Fright check, completed

Dec.1994 Access road and employees residential facilities, under construction

Dec.27.1994 The opening ceremony was held and commenced its services as for the new airport.

(M/P+F/S)

Compiled Mar.1992 **EAS** CHN/S 202B/90 Mar.2008 Revised

COUNTRY	China							
NAME OF STUDY	Municipal Solid	Waste Treatme	ent Plan in X	ian City				
SECTOR	Public Utilities	/ <b>U</b>	Jrban Sanitat	ion		4.	TYPE OF STUDY M/P+F/S	
TIME OF DEVELOPME	CY AT THE NT STUDY	Joint Venture	of Study for l	Municipal So	olid Waste Trea			
OBJECTIVES OF THE STUDY			Master Plan.					
CONSULTANT(S)			Co., Ltd.					
STUDY PERIOD	Jan.1989 ~	Jun.1990	17month(s	)				
	The old area & a part of expansion area in Xian City (172 sq.km) <m p=""> Inner City in Xian City (Final Disposal Site) Outer City in Xian City (Intermediate Treatment Site)<f s=""></f></m>							
	PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD	NAME OF STUDY  SECTOR  Public Utilities  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Present Condition Feasibility Study  OBJECTIVES OF THE STUDY  Nippon Koei Consultant(s)  Jan. 1989  The old area & and an inner City in Xi Outer City in Xi	NAME OF STUDY  SECTOR  Public Utilities  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Present Condition Analysis & I Feasibility Study.  OBJECTIVES OF THE STUDY  Nippon Koei Co., Ltd. Japan Engineering Consultants  STUDY PERIOD  The old area & a part of expans Inner City in Xian City (Final I Outer City in Xian City (Intern SITE OR AREA	NAME OF STUDY  Municipal Solid Waste Treatment Plan in X  SECTOR  Public Utilities  / Urban Sanitat  Joint Venture of Study for I  COUNTERPART AGENCY AT THE  TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Present Condition Analysis & Master Plan. Feasibility Study.  OBJECTIVES OF THE  STUDY  Nippon Koei Co., Ltd. Japan Engineering Consultants Co., Ltd.  STUDY PERIOD  Jan. 1989  Jun. 1990  The old area & a part of expansion area in X  Inner City in Xian City (Final Disposal Site) Outer City in Xian City (Intermediate Treatment)	NAME OF STUDY  Municipal Solid Waste Treatment Plan in Xian City  SECTOR  Public Utilities  / Urban Sanitation  Joint Venture of Study for Municipal Solid Vent	NAME OF STUDY  Municipal Solid Waste Treatment Plan in Xian City  SECTOR  Public Utilities / Urban Sanitation  Joint Venture of Study for Municipal Solid Waste Tre  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  Present Condition Analysis & Master Plan. Feasibility Study.  OBJECTIVES OF THE STUDY  Nippon Koei Co., Ltd. Japan Engineering Consultants Co., Ltd.  STUDY PERIOD  Jan. 1989 Jun. 1990 17month(s)  The old area & a part of expansion area in Xian City (172 sq.km) <m (final="" (intermediate="" city="" disposal="" in="" inner="" outer="" r="" s="" site)="" site)<f="" treatment="" xian=""></m>	NAME OF STUDY    Municipal Solid Waste Treatment Plan in Xian City	NAME OF STUDY  SECTOR  Public Utilities  / Urban Sanitation  4. TYPE OF STUDY  M/P+F/S  Joint Venture of Study for Municipal Solid Waste Treatment Plan in Xian City  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  PRESENT COUNTERPART AGENCY  OBJECTIVES OF THE STUDY  Nippon Koei Co., Ltd.  Japan Engineering Consultants Co., Ltd.  STUDY PERIOD  Jan. 1989 ~ Jun. 1990 17month(s)  The old area & a part of expansion area in Xian City (172 sq.km) <m p=""> Inner City in Xian City (Intermediate Treatment Site)<f></f> SITE OR AREA</m>

<M/P> Recommended plans for solid waste management system of the target

year 2000 in Xian City are as follows:

- (1) Collection system Setting up of collection container and vehicle with a promotion of separate discharge system and establishment of 2 steps transportation system with transfer station.
- (2) Final disposal facility construction of final disposal facility (12,000,000 cu.m) assumed 10 years life.
- <F/S>The First Phase Project of which the target year is 1995 should be as follows:
  - 1) Construction of controlled type of final disposal facility.

Location : Chian-Sun District

Landfill method : Semi-Anaerobic Metabolism in Landfill

Major facilities : Reservoir type deposit

Water insulation

Underground Water Discharge

Rainwater Discharge

Access road

2) Construction of transfer station.

Contents of Major Project

Targeted Population : 475,343 (1995) Planned waste collection volume: 477 tons/day

Capacity of Planned Facilities : Compactor Container 160 tons/day

Flat Landfill 360 tons/day EAS CHN/S 202B/90 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(1)Phase I (Chian-Sun Landfill Site)

Subsequent Studies:

(FY1991 Overseas Survey)

1991 D/D Own fund

Finance:

This project was inevitable from the legal point of view and implemented by means of local financing which was deposited year by year.

Construction:

Apr.1993 Commenced

Apr.1994 Completed

Jun.1995 Operation Started (FY 1996 Overseas Survey)

Operation & Maintenance:

The Management Organization was established.

Effect:

70% of solid waste disposed in Xian City is treated in this site. It helps to mitigate the negative impact of waste on environment.

Problem:

The environment problems such as flies, mosquitoes, bad smell, etc. have arose in the area surrounding the site.

#### Remaining Projects:

(FY 1996 Overseas Survey)(FY 1997 Overseas Survey)

It is planned to submit a request for 1,000 mil. Yen grant aid assistance to Japan in order to implement the following projects.

- 1. Phase II construction of waste disposal plant
- 2. Construction of transfer station
- 3. Construction of incineration facilities in hospitals and hotels
- 4. Construction of filtrate treatment plant
- 5. Procurement of necessary equipment
- 6.Improvement of technology
- 7. Construction of methane utilization system

#### Detail:

(FY 1991 Overseas Survey)

The project is assigned high priority in the city's eighth Five-Year Plan (1991-95).

				<b>(F/S)</b>			Compiled	Mar.1992
$\mathbf{E}$	AS CHN/A	305/90					Revised	Mar.2008
1.	COUNTRY	China						
2.	NAME OF STUDY	Agricultural W	Vater-use Develop	ment Project on Haizi Dam Are	a in Beijing (	City		
	SECTOR	Agriculture		(Agriculture in) General	4.	TYPE OF STUDY	F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPMI		Ministry of Wa	ter Resources				
	PRESENT COUNTERP.	ART AGENCY						
6.	OBJECTIVES OF THE STUDY	To judge the fo	easibility of this V	Vater Saving Irrigation Project b	y introducing	g the modern water	management sys	tem.
7.	CONSULTANT(S)	Japan Enginee Sanyu Consult	ering Consultants (tants Inc.	Co., Ltd.				
8.	STUDY PERIOD	Dec.1989 ~	~ Mar.1991 ~	15month(s)				
		Beijing city, I	Pinggu Prefecture					
0	SITE OR AREA							

# 10. MAJOR PROPOSED PROJECT(S)

- (l) Rehabilitation of North Main Canal, 1 = 24.3 Km
- (2) Rehabilitation and Construction of Appurtenant Facilities of North/South Main Canal, 149 nos.
- (3) Construction of Branch Pipeline Canal, 1 171.94 Km
- (4) Construction of Farm Pond, 238 nos.
- (5) Construction of Pump Station and Delivery Pipeline, 105,000 mu
- (6) Sprinkling Equipment, 2,544 sets
- (7) Construction of Road, 1 87.5 Km
- (8) Installation of Water Management Equipment, L.S.

北京市海子ダム農業水利開発計画

EAS CHN/A 305/90 F/S

	Completed or In Progress	Promoting
DDECENTE CELATRIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

This project consists of two parts: (1)technical transfer for water saving irrigation by the project-type technical cooperation (2)introduction of the water management equipment through Japan's Grant Aid Assistance.

# (1) Project-type Technical Cooperation

- "Irrigation and Drainage Engineering Development and Training Center Project" (Jun.1993~Jun.1998)
- -Improvement of water use efficiency, irrigation and drainage technique by introduction of Japanese technique.
- -Training of technician

Jun.1993 Five experts were dispatched and the center started to operate.

Nov.1993~Dec.1994 Model infrastructure improvement project was implemented at model farm. Approx.20ha of farmland was improved and irrigation facility and greenhouse for vegetables were constructed.

(2) Water Management System Pilot Infrastructure Project

Finance:

(FY 1997 Domestic Survey)

33mil.yen JICA

\*Contents of Project

Establishment of long-distance observation system and rehabilitation of related facilities.

- Rehabilitation of 5 dispersion gate
- Installment of telemeter (5)
- Observation computer (2)

etc

#### (3) Project Implemented by Chinese Fund

Dec.1991 Repair work of the North Main Canal was completed with the local fund.

1993 The Government of China invested 6.16 million yuan as construction cost to carry out the following projects:

1)gate for the main canal (2 places), 2)branch pipeline canal (30km), 3)Reservoir (15 places), 4)Irrigation areas (10,000 mu)

(FY 1998 Domestic Survey)

It seems to be difficult to implement the remaining projects.

(FY2000 Overseas Survey)

Redevelopment of the North Main Canal was completed in 1996.

**(F/S)** 

		(F/S)	Compiled	Mar.1992
$\mathbf{E}^{A}$	AS CHN/S 3	313/90	Revised	Mar.2008
	COUNTRY	China		
	NAME OF STUDY	Rapid Railway Construction Project in Tianjin		
	SECTOR	Transportation / Railway 4. TYPE OF STUDY F/S		
5.	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	F/S for a new railway line construction between Tianjin and Tanggu (approx. 50km).		
		Japan Railway Technical Service		
7.	CONSULTANT(S)	Yachiyo Engineering Co., Ltd.		
8.	STUDY PERIOD	Feb.1989 ~ Jun.1990 16month(s)		
9.	SITE OR AREA	Tianjin City Area: 11,312km Population: 8.15 Million (1986)		
10.	MAJOR PROPOSED PR	ROJECT(S)		
reg He -Se 31. -Se Op trai tem 2)Ii Ele	nstruction by Tianjin City ions along the route, espe River. ction to be opened at the 50km,embankment:7.20l ction to be opened at the erational safety and traffi n control(ATC) system, aporary repair, trip inspec- nspection and repair facil	by of a new passenger railway line of about 50 km between Tianjin and Tanggu Major purpose is the descially, the improvement of commuter transport in Tianjin and Tanggu, and balanced development of regions at 1st Stage(end of 1995): between Shuang Lin and He Bey Lue, 38.70km, Structures: viaduct km, No. of stations:9 rolling stock:58 cars(commuter electric railways), maximum operation speed of trains at 2nd stage(early 2000): between He Bey Lue and Tianjin New Port, 10.85km, No. of stations:2, rolling stock in control systems: cabsignal block system, cab signal system, 1st-type electric relay or electronic relay system trailized train control(CTC) system; Rolling stock base: 1)Base facilities: facilities for main part inspect ction, regular inspection(monthly, etc.), car cleaning facilities, storage track, etc.  [lities: management office, inspection building, workshop building, wheel grinding shop, maintenance base unsformation facilities, contact wire facilities, power transmission and distribution wire facilities, signaling	120km/h k:84 cars stem, autor ion or over	natic rhaul,

EAS CHN/S 313/90 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

Detail

(FY 1991 Domestic Survey)

To date neither a detailed study nor official request for financial cooperation has been made.

#### (FY 1994 Domestic Survey)

In this project, Solin station is planned to be the starting point, on the precondition that the Tianjin Subway Line No.1 will be extended to Solin. However, the request for financial assistance has not yet been made, because the extension work of the subway is being delayed.

#### (FY 1994 Overseas Survey)

Although a loan from Japan was applied to the National Planning Committee after F/S, the loan was not admitted as a national project and Tianjin City is seeking for a funding method. At present, BOT method is discussed. The city asked American investment banks and corporations in Hong Kong, Singapore, Germany, France, Canada, Thailand or Taiwan for finance. These corporations are inspecting profitability of the project.

Since the New Seacoast Development Project (10 years) was expanded and this project became more important, Tianjin City Representative Assembly and Planning Committee determined to promote this project. One of the most critical changes from the JICA's F/S is the change of areas for railway construction. Replacing the F/S plan of locating the starting point at the south side of the sea/river, the plan to make Tianjin Station a starting point of the railway and expand the line through Tianjin Airport, development district, bonded warehouse district, and the New Tianjin Harbor is now discussed by the Tianjin City Committee of Arts and Science. Reasons of the changes are as follows:

(1)The profitability of the line will be raised by cutting unnecessary railway service(11km between Tianjin Station and the starting point at the south side of the sea/river); (2)Accoording to changes of the regional development plan, on which this project is based, demand expectation at present has become largely different from the expectation at the time of F/S.

# (FY 1997 Overseas Survey)

In November 1995, JV company of Chinese "Tianjun Economic Technology Development Invt" and Thai "Starwell" was founded. This company will be in charge of constructing the Tianjin rapid railway.

As for a schedule at present, F/S will be carried out from 1998 and construction will be started in 2000.

Investment amount and consulting company for F/S are not settled yet.

The route is not determined due to the extension of the existing subway.

#### (Note)

An Australian corporation financed A\$ 100mil, for the subway construction at Tianjin City, as a relating project. The section between Tianjin and the original starting point of railway(11km southeast from Tianjin Station) planned in JICA's F/S will be served by the subway after completion.

#### Situation:

(FY 1999 Overseas Survey)

The government of Tianjin considers the development of Tianjin and Tanggu new passenger railway line as an important policy, therefore the government is proceeding the project accordinly to Tianjin City Plans. Development of Beijing-Tianjin-Tanggu Highway road was completed and its traffic condition has improved.

(Basic Study)

Compiled Mar.1992

$\mathbf{E}^{A}$	AS CHN/S 502/	/90					Revised	Mar.2008
1.	COUNTRY	China						
2.	NAME OF STUDY	Groundwater D	evelopment Project in	Urumuqi				
	SECTOR	Social Infrastru		Resources Development	4.	TYPE OF STUDY	Basic Study	
5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			Ministry of Geology	& Mineral Resources				
	PRESENT COUNTERP	ART AGENCY						
6.	OBJECTIVES OF THE STUDY			undwater resources developm	nent for	Su-Shan water sour	ce area.	
7	CONCIL TANTES	Yachiyo Engine	eering Co., Ltd.					
/.	CONSULTANT(S)							
8.	STUDY PERIOD	Jun.1988 ~	Jul.1990	25month(s)				
		Su-Shan water	source area					
9.	SITE OR AREA	Su shan waer	source area					
	MAJOR PROPOSED PE							
	0,000t/day (15 drilling pr		ith pump equipment)					
St D	nter Supply System: 1-Shan, Urumuqi City iameter 500mm Ductile i istribution in Reservoir;		n					

EAS CHN/S 502/90 Basic Study

PRESENT STATUS	In Progress or In Use
	Delayed
	Discontinued

### **Description:**

Groundwater Development in Su-Shan Water Source Area

Subsequent study:

(FY 1998 Overseas Survey)

Study has been conducted with their own fund. The original plan to connect to the water supply system in Urumuqi was changed. Water transport pile was shortened. Finance:

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey)

Starting the project is delayed due to the shortage of funds. The request is to be submitted to the central government. Amount of 8.8 million yuan (60 % from the central government, the remaining 40 % from the local government of Urumuqi City) is demanded.

Construction:

(FY 1998 Overseas Survey)

Water source in Su-Shan has been developed with fund of the area and 2 X 10,000m3/day of water is being provided. Its comprehensive development plan is to be conducted.

#### Detail:

The local government hopes for the project implementation by the grant aid from the Japanese Government. However, the priority of the project at the national level is reportedly not high enough to be included in the project list for the Japanese grant aid program.

Although the local government is keen to implement the project, no action has been taken because of the budgetary limitations.

(FY1995 Overseas Survey)

At the end of 1994, the local government of Urumuqi City made this project as one of the 10 important projects of the year of 1995, and commenced preparatory works. Trying to find some finance from abroad and to implement designing works for the development. Future cooperation of JICA is eagerly expected.

(FY 1996 Domestic Survey)

Although some desired to implement the project with a BOT scheme, it has not been realized because no Japanese company showed interests on such investment. (FY 1996 Overseas Survey)

This project is incorporated into the Urumuqi Nineth-Five Year Development Plan and will be implemented between 1998 and 2000. However, finance has not been secured, yet. The Finnish Government provided US\$ 1.23 mil. loan for the procurement of equipment and the introduction of advanced Technology. (FY 1997 Domestic Survey)

The proposed project was not implemented in FY 1997 in consequence of other priority project (road project).

Local government of Urumuqi tries to assure finance to implement the project because the lack of water is still serious problem.

# (FY 1998 Domestic Survey)

It was expected that the project would be realized with Japanese grant aid assistance. However, since other projects in the central area are given higher priority, the policy was changed to implement the project with their own funds.

(F/S)

Compiled Mar.1993

CHN/A 306/91 **EAS** Revised Mar.2008 1. COUNTRY China Improvement of Agricultural Land Reclamation Dike and Agriculture Development Project, Qinzhou Region, Guangxi NAME OF STUDY Zhuang Autonomous Region SECTOR / (Agriculture in) General TYPE OF STUDY F/S 3. Agriculture 5. China Guangxi Water and Power Department COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Feasibility Study of the improvement of Agricultural Land Reclamation Dike and Agriculture Development in two selected typical regions. OBJECTIVES OF THE STUDY Taiyo Consultants Co., Ltd. 7. CONSULTANT(S) Aug.1990 Sep.1991 13month(s) 8. STUDY PERIOD Qinzxhou Region, Guangixi Zhuang Autonomous Region Area: 34,363 ha, Population: 135(thousand) (1990) 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) The project sites are in Baiquwei and Kangxilingwei along the Qinzhou bay. The project is to reclaim dikes to protect cultivated land (reclamated water areas) from billows by typhoons and flood waters from back marshes and to promote agricultural development. Baiqumei Kangxilingwei Total \* Reclamation Area : 7,930 ha 11,263 ha 3,333 ha \* Reclamation Dike : 23.4 km 12.4 km 35.8 km \* River Embankment Improvement: 43.8 km 38.4 km 39.6 km \* Headworks : - unit 1 unit 1 unit \* Main Irrigation Canal : 31 km 9.6 km 12.7 km \* Roads 40.0 km 86.3 km : 463 km

EAS CHN/A 306/91 F/S

	Completed or In Progress	Promoting
DDECENTE COLATOLIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

Reasons for Delay or Suspension:

(FY 1995 Overseas Survey)

The works of this project were suspended due to the change of circumstances at the region.

(FY1996 Domestic Survey)

It is difficult to secure the local fund.

(FY 1998 Domestic Survey)

The impact of the reclamation project on agricultural land and the harbor has been simulated for several years. During the period of this simulation, economic/social situation of this area has been drastically changed due to the economic growth. Objection has also been made against using the reclaimed land as agricultural land. The project cannot be launched until there will be some consensus that the reclaimed land will be used for agriculture as planned.

(FY 1999 Overseas Survey)

The autonomous region and coastal cities are anxious about effects of large scale land reclamation such as the erosion toward the bay and harm on the security of Qinzxhou Port and Guangixi Zhuang Port as well as the environment quality of the bay. They are planning to conduct an ocean survey and simulation in order to make clear of the effects of land reclamation to decide the policy of the project.

Due to the new local regulation of Guangxi autonomous region, the environment protection of the ocean and the management of ocean development has been enforced. Therefore, adjustment of the plan is required as the land reclamation project effects the environment of mangrove trees and moreover its area exceeds the limit of the present law.

For these reasons, it is considered difficult to implement the project as it was proposed. China Guangxi Water and Power Department will decide a new embamkment construction plan by taking into account the opionions of other relevant organizations. The Department is not much interested in implementing a large scale land reclamation in the area where there are ports and mangrove trees.

#### Detail

The project implementation requires approval from the Provincial Planning Committee. An application was filed in Jan. 1992. The Guangxi Water and Power Department applied to register the project to the National 8th Five Year Plan. At the same time, the environmental studies were being carried out. In consideration of the peculiarities of the project, the cost for the D/D would be requested to the JICA. Local costs for the implementation would be provided by the local funds, and foreign costs by the OECF loan.

In June 1992, the sea dike in Baigumei suffered damage from the 4th typhoon.

On the other hand, Beibai city, adjoining Baiqumei, which is selected as a special economic development zone, is recognized as an important trading point in the south-western part of China due to its role for national border trade with Vietnam and domestic trade within adjoining provinces. Therefore, the Guangixi Regional Planning Committee emphasizes on the expansion of the Beihai harbor, development of railways and roads, and the construction of a new harbor at the entrance of the Qinzhou bay in the National 8th Five Year Plan. However, the Guangixi Regional Planning Committee also recognized importance of this agricultural development project. The committee will register this project to the National 9th Five Year Plan (1996/2000), once the environmental study is finished.

#### (FY 1997 Domestic Survey)

 $Chinese \ side \ expects \ for \ D/D \ but \ has \ not \ requested \ yet. \ \ Yen \ loan \ will \ be \ requested \ after \ completion \ of \ D/D.$ 

(F/S)

		<b>(F/S)</b>	Compiled	Mar.1993
EAS	CHN/S 314/91		Revised	Mar.2008

1.	COUNTRY	China						
2.	NAME OF STUDY	Telephone Netw	ephone Network Automatization Plan in Dehui County, Jilin Province					
3.	SECTOR	Communication	Communications & Broadcasti / Telecommunication 4. TYPE OF STUDY					
5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY			Posts and Telecon	mmunications Adm	inistration of Jilin Pro	vince		
	PRESENT COUNTERPA							
6.	OBJECTIVES OF THE STUDY			automatization plane counterparts throu	n in Dehui County, Ju	lin Province.		
7.	CONSULTANT(S)	NTT Internation	nal Corporation					
8.	STUDY PERIOD	Jul.1990 ~	Sep.1991	14month(s)				
	SITE OR AREA		Dehui County in Ji	lin Province (Popula	ation 820,000; Area 3	,435 sq.km)		
10.	MAJOR PROPOSED PRO	OJECT(S)						

This telephone automatization and expansion plan designates 1995 as the targets. In Dehui county, the telephone sets for the areas, where 24 local government offices are located, are installed so as to cope with the demands until 1995. For about 300 villages, 5 telephone sets are installed for office in every 5 hamlets. The total number of telephone sets will be about 8,100. The necessary facilities for implementation of this project are following.

1. Exchange 1 Toll/ Local switch Unit 4,700 L.U.

> 11 remote switch Unit 3,160 L.U.

- 2. Transmission 11 sections 33 systems 4,800 pair-km
- 3. Subscriber Cable 55,500 pair-km
- 4. Others Building, Power 12 locations

This implementation plan will be divided into two(2) terms. In the first term, subscriber cables for the areas where local government offices are located, buildings, power, exchanges and transmission facilities will be expanded. In the second term, subscriber cables for official institutions and hamlets will be installed. Implementation period is 3 years.

EAS CHN/S 314/91 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

#### Detail:

On July 1991, the Committee organized by "The Association for the Promotion of International Trade, Japan" visited at China, vice-president of Ministry of Posts and Telecommunication of China requested promotion of this project.

Chinese Government has not yet requested the implementation of this project to Japanese Government.

#### (FY 1992 Overseas Survey)

A request has been made to the Ministry of Foreign Economic Relations and Trade for the utilization of Japanese Grant Aid and presently in progress toward ratification.

#### (FY 1997 Domestic Survey)

Requests for subsequent study nor financial assistance have not been submitted. It is possible that Chinese side has implemented already.

#### (FY 1997 Overseas Survey)

In 1992, Trade and Economy Department of Jilin Province submitted a request for Japanese grant aid to the Ministry of Trade and Economy. But Chinese side did not request to Japan concerning that the project was not suited to a grant aid scheme and grant aid assistance should be provided for BHN.

Dehui County is promoting the automation of telephone system with own budget. In response to the central government's notice which encourages the installation of more than 10,000 lines in each county, Dehui County leased a switch unit for 10,000 lines from NEC. Moreover, Dehui County purchased another switch unit for 10,000 lines from JV of NEC and Tensing in 1996. At present, 20,000 lines are in use.

(M/P+F/S)

Compiled Mar.1994 **EAS** CHN/A 202B/92 Revised Mar.2008

1.	COUNTRY	China						
2.	NAME OF STUDY	The Integrated A	Agricultural and Animal Husbandry Development Project in Xiangxi Nanzhi Shanno Area					
3.	SECTOR	Agriculture	/ (Agriculture in) Genera	Į .	4. T	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGENCE TIME OF DEVELOPME	CY AT THE	Ministry of Agriculture, Hunan provi	nce				
	PRESENT COUNTERPA							
6.		Elaboration of M/P on Integrated Agricultural and Animal Husbandry Development Project in Xiangxi Shinjiazu Miaoz autonomous district.  Elaboration of F/S on priority projects in the model region of approx. 5,000ha.						
7.	CONSULTANT(S)	Japan Agricultural Land Development Agency						
8.	STUDY PERIOD	Feb.1991 ~	Jul.1992 17month(s)					
9.	SITE OR AREA		rea: 202,260 ha of Project area located oject area: 4,943ha in Changle region			oned autonomous	district.	

## ${\bf 10.\ MAJOR\ PROPOSED\ PROJECT(S)}$

<M/P> Pasture development 31,000ha

Farm road development 282km

Agricultural instrument introduction 48,000 units live stock barn establishment, Livestock introduction.

Meat processing facility (7 centers), Establishment or improvement of technical verification and promotion center for agriculture and animal husbandry).

Agricultural and rural development (Irrigation 1,345ha, Drainage 562ha, Rural water supply, school, Library, Marketing center, Medical Service and equipment, Rural electrification).

Pasture development 973ha, Farm road development 30.9km, Agricultural instrument introduction 1,882 units. Live stock barn establishment. Livestock introduction, Agricultural and animal Husbandry development center, Sub-sector, Agricultural and rural development (Irrigation 47ha, Rural water supply, School, Library, Marketing center, Rural electrification.

EAS CHN/A 202B/92 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

Detail:

(FY 1993 Domestic Survey)

It is only one year after completion of the study. Accordingly the Chinese Government is considering next step for the execution of the project.

#### (FY 1994 Domestic Survey)

As a project based on this study, the Chinese Government is preparing for the agricultural and livestock development project in the model region (5,000ha), and dispatch of expert.

#### (FY 1997 Domestic Survey)

It seems that action will be taken to realize Project type Technical Cooperation "Animal Husbandry Development Plan in Xiangxi".

Local government has requested the implementation of this project to central government after the completion of development study, but it has not been realized due to some reasons.

#### (FY 1998 Domestic Survey)

Request for the project-type Technical Cooperation "Animal Husbandry Development Plan Xiangxi" has been submitted to the central government. However, the Chinese Government has not submitted the request for this project to the Japanese Government since they have other projects to request and also they do not have enough funds.

Rather, it seems that the priority of this project has been lowered.

#### (FY 2000 Overseas Survey)

Preparing for the implementation of the project. Ministry of Agriculture, Hunan province, submitted a request of Japanese grant aid for "Animal Husbandry Development Plan Xiangxi" to the Central Government.

(M/P+F/S)

Compiled Mar.1994 **EAS** CHN/A 203B/92 Revised Mar.2008

1.	COUNTRY	China		
2.	NAME OF STUDY	Liao Ho Delta A	gricultural Resources Integrated Development Project	t in the Liaoing Sheng
3.	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGENO TIME OF DEVELOPME	CY AT THE	Water Resources and Electric Power Liaoning Provin	ce
	PRESENT COUNTERPA			
6.		M/P for the agricultural development and F/S for Bui-Sui-Shi Dam Construction Project and Da-Wa Delta Agricultural Development Project.		
7.		Nippon Koei Co Hokkaido Engin	., Ltd. eering Consultants Co., Ltd.	
8.	STUDY PERIOD	Dec.1990 ~	Jan.1993 25month(s)	
	SITE OR AREA	Liao-Ho Delta, Liaoing Province 1,140,000ha		

#### 10. MAJOR PROPOSED PROJECT(S)

\*Project costs are shown in "million yen" instead of US\$ 1,000

<M/P>

1) Bai-shi Multipurpose Dam Project for irrigation, municipal and industrial water supply, hydropower and flood control. Concrete gravity type having the dam volume of 560,000m3.

Reservoir storage capa. 1,600 MCM. Effective storage 660 MCM.

- 2) Da-ling-he Delta Agricultural Development Project (Irrigation and drainage development with land consolidation of the existing up land field of 9,000ha for paddy cultivation and irrigation water supply to the existing paddy fields of 8,000ha)
- 3) Improvement of existing three ponds located in the paddy field of Liao Ho Delta. (Storage capa. 7.5 MCM increased by 2.4 NCM)
- 4) Irrigation and drainage development for the existing feed fields about 69,000ha.
- 5) Da-Wa Delta Agricultural Development Project. (land reclamation and consolidation for 10,000ha for paddy.)

Hai-shi Multipurpose Dam Project for irrigation, municipal and industrial water supply, hydropower and flood control. Concrete gravity type having the dam volume of 560,00m3. Reservoir storage capa. 1,600 MCM.

Da-Wa Delta Agricultural Development Project. (land reclamation and consolidation for 1,000ha for paddy.)

EAS CHN/A 203B/92 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description**:

(1) Bai-shi Dam Construction

Subsequent Studies:

(FY 1996 Domestic Survey)

Apr.1995 The contact mission was dispatched for the technical assistance for hydraulic test of the model dam.

Sep.1995 The mission was dispatched to sign S/W for the various experimental survey works for the construction of the Bai-Shi Dam at Da-Ling-He.

Aug.1996~Aug.1997 The above survey works have been implemented.

Consulting Firm / Nippon Koei

(The Bai-shi Dam is the first-class dam. Thus, the hydraulic test of the model dam must be implemented.)

(FY 1999 Demestic Survey)

Dec.1998~Mar.1999 OECF SAPROF

#### Finance

Dec.1996 L/A 8,000 mil Yen. Liaoning Baishi Reservoir Construction Project.

(FY 1996 Domestic Survey)

The Chinese government will finance the balance.

#### Construction:

(FY 1996 Domestic Survey)

Implementing Period:May.1995~Nov.2000

The preliminary construction work was commenced in May.1995 and the fundamental construction work was started in Sep.1996. The construction will be completed in 2000.

(FY 1997 Domestic Survey)

At the point of October 1997, more than 50% of concrete works has been completed.

Construction trader: Unknown (Local Contractor)

Operation & Maintenance:

(FY 1997 Domestic Survey)

Water Resources Department of Liaoning Province is in charge of operation and maintenance.

Regarding to construction management, Nippon Koei contracted with an implementing organization and started its work in September 1997.

(FY 1998 Domestic Survey)

As of the end of Oct.1998 80% was completed.

Sep.1999 Scheduled to be completed.

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Sep.1999 Flooding was implemented.

Dec.2000 Completion(scheduled)

#### Situation:

(FY 1995 Overseas Survey)

Major part of the former half (concerning with water, electricity, transportation, communication, building, etc.) is already completed.

(2) Da-Wa delta agricultural Development Project

(FY 1997 Overseas Survey)

#### Finance:

Government budget and private fund 383mil. Yuan

\*Contents: Expansion of rice field, Expansion of reed field

Construction:

(FY 1999 Overseas Survey)

Jan.1994~Dec.1997

\*Contents: Cultivation area(40.75 furrow), Paddy field expansion area(15 mil.furrow), Farm improvement area(8.2 mil. furrow), Shrimp culture(4 mil. furrow), Freshwater fish culture(2.27 mil. furrow), Embankment(26.3km), Water resorvoir(5,580m3)

		(F/S)	Compiled	Mar.1994
EA	AS CHN/S 3	315/92	Revised	Mar.200
1.	COUNTRY	China		
2.	NAME OF STUDY	Flood Forecasting and Warning System in the Middle and Lower Reaches in the Chang Siang		
3.	SECTOR	Social Infrastructure / River & Erosion Control 4. TYPE OF STUDY   F/	S	
5.	COUNTERPART AGEN TIME OF DEVELOPMI			
	PRESENT COUNTERP.	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	The objective of study is to carry out feasibility study on the flood forecasting and warning system i reaches in the Han Jiang.	n the middle	and lower
7.	CONSULTANT(S)	Nippon Koei Co., Ltd.		
8.	STUDY PERIOD	Jul.1990 ~ Jul.1992 24month(s) ~		
9.	SITE OR AREA	Catchment area and river length of Hang Kou: 159,000 sq.km and 1,577 km respectively		

# 10. MAJOR PROPOSED PROJECT(S)

Provision of flood forecasting and warning system with the following sub-systems was proposed:

- 1) Data observation and collection system: control center (1), sub-control center (3), repeater station (18), tele-meter station (61)
- 2) Data processing system:
- computer system with file server (1), work-station (2), display (3), hard disk, printer, and so on.
- 3) Data transmission system: transmission of data and information by multiplex transmission line including facsimile and telephone

漢江中下流区間洪水予警報計画

<sup>\*</sup> Proposed project costs are shown in 1,000 yuan instead of US\$ 1,000

EAS CHN/S 315/92 F/S

Completed or In F	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

### Description:

Finance:

(FY 1998 Domestic Survey)

Request for a grant aid assistance is to be submitted (on and after FY 1999).

(FY 1999 Domestic Survey)

Even though the following request for Japan's grant aid was not accepted, Chang Siang Water Resources Development Authority still has a strong intention to implement the project. Chang Siang Water Resources Development Authority submitted supplementary explanation data in May, 1998 to the Japanese embassy.

\*Contents of request:

Submitted Date: Oct.1997 Amount of request: 1,695mil.Yen

Contents of request: Development of flood forecasting and warning system, which is composed of the following 3 sub-systems, in the middle and lower reaches in Chang Siang.

- 1. Data observation and collection system:
  - Control center (1), sub-control center (3), repeater station (18), tele-meter station (61)
- 2. Data processing system:
  - Computer system with file server (1), work-station (2), display (3), hard disk, printer, and so on.
- 3.Data transmission system:
  - Transmission of data and information by multiplex transmission line including facsimile and telephone
- \*After 7 years from the completion of the Study, China is considering to install VSAT communication line independently, due to the change in communication situation.

#### Construction:

(FY 1998 Domestic Survey)

2 years.

Detail:

(FY 1996 Domestic Survey)

The provision of Japanese grant aid assistance was suspended due to the nuclear testing conducted by the Chinese Government. Thus, the request for grant aid assistance (requested in 1992 with amount of 1,695mil.Yen) to implement this project was turned down. Although the provision of grant aid assistance was resumed this year, it seems that no request has been submitted for this project.

# (FY 1998 Domestic Survey)

Considering the terrible damage by flood occurred in the Yangzhau River Basin, emergency of this project has been enhanced. Although this project plans to use the ground circuit, Chinese government strongly desires to use satellite communication. Therefore, the review study on communication facilities should be conducted for implementing the proposed projects.

**(F/S)** 

Compiled Mar.1994 CHN/S 316/92 **EAS** Revised Mar.2008

1.	COUNTRY	China		
2.	NAME OF STUDY	Jilin Fengman D	Jilin Fengman Dam Rehabilitation Project	
3.	SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S		
5.			Fengman Power Plant, Northeast China Electric Power Administration, Ministry of Energy	
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
		and the Long-ter	safety of the Dam; 2)To review the Flood Control Volume (Discharge); and 3)To formulate the Immediate m Dam Rehabilitation Plan.	
7.	CONSULTANT(S)	INA Corporation	n	
8.	STUDY PERIOD	Mar.1991 ~	Mar.1993 24month(s)	
9.	SITE OR AREA	Fengman Dam,	upstream and relevant lower reaches	
10.	MAJOR PROPOSED PR	OJECT(S)		
<in< th=""><th>nmediate Measures&gt;</th><th></th><th></th></in<>	nmediate Measures>			
- G	routing			
- P	re-stressing work			
	dditional drain hole			
	earrangement of dam obs	servation facility		
	eservoir capacity survey			
	ater stop measure for ups		dam	
	ehabilitation for penstock		ur. P. handuaila	
	am crest pavement, rehab ong-term measures>	mitation for galle	ry & nandrans	
	pillway expansion			
	am stability measures			
	Anti-frozen measures of dam			

EAS CHN/S 316/92 F/S

Completed or In	Completed or In Progress	Promoting
DDECENTE COLATOLIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

Detail:

-Inquiry for the project from Fengman Power Plant on 16, March 1993

-The detailed cost was sent to Fengman Power Plant on 22, March

## (FY 1995 Overseas Survey)

Both countries' authorities concerned had agreed on the necessity of the immediate measures consisted of 8 items. A grant aid of J.yen 1 billion was requested from China to Japan in Dec.,1994, taking into consideration that the circumstances of Japan despite of the Japanese budget is going to be allocated J.yen 1.86 billion.

#### (FY 1996 Overseas Survey)

The Chinese Government has been continuously requesting the Japanese Government for the provision of grant aid assistance.

#### (FY 1997 Overseas Survey)

In December 1994, the Ministry of Trade and Economy submitted a request for Japanese grant aid assistance for provision of machinery and materials.

But in Japan - China Conference held in 1997, Japanese side gave an opinion that a power generation project might be assisted not by grant aid but by loan. As a result, Chinese side deleted the project from a list of grant aid request.

The possibility to request for yen loan seems to be low because National Planning Committee doesn't tend to use loan for rehabilitation of dams.

#### (FY 1998 Domestic Survey)

Northeast part of China was damaged by flood in Aug. 1998. Therefore, northeast China Electric Power Administration planned to implement the immediate measures by their own fund and inquired a Japanese construction firm, which was involved in the construction of this dam, whether or not they tender a bid.

Construction of raising the dam crest, though it was not proposed by JICA, was on-going as of Nov.1997 and

Remaining Project: "Jilin Fengman Dam Rehabilitation Project: Long-term measures."

Impeding Factors: - Difficulty in funds' procurement.

- Spillway expansion requires large-scale reconstruction of dam crest.

The prospects for the future are unknown.

#### (FY 2000 Domestic Survey)

There is little possibility to obtain Yen loan, therefore it is expected to implement immediate measures by their own fund. It is regarded as the cancelled project.

## (FY 1999 Overseas Survey)

8 components of Immediate Measures were all implemented.

Implemented: Road development at upper embankment, Construction of anchour ground, Rearrangement of dam observation facility

Impact: This project contributed the stable power generation and the safety for the dam

Implementing: Rehabilitation for penstock, Reservoir capacity survey

Impeding Factors: The scale of all the projects is too large. Concerning to the construction of the Additional drain holes, it is necessary to improved the lower river channel to control the floods at the lower reaches of the River.

Remainings: Special irrigation project, Additional drain hole, Water stop measure for upstream surface of dam

\*Above construction works were implemented by funds procured from power plant.

		Compiled	Mar.1995
AS	CHN/S 101/93	Revised	Mar.2008

1.	COUNTRY	China	
2.	NAME OF STUDY	Water Quality Protection for Poyan Lake in China	
3. 5.	SECTOR  COUNTERPART AGEN TIME OF DEVELOPME		
	PRESENT COUNTERPA	RT AGENCY	
		Preparation of master plan of water quality conservation for Poyan Lake.	
6.	OBJECTIVES OF THE STUDY		
7.	CONSULTANT(S)	Yachiyo Engineering Co., Ltd.	
8.	STUDY PERIOD	Mar.1992 ~ Sep.1993 18month(s)	
9.	Poyan Lake and its basin(162,000km2)  9. SITE OR AREA		
Pla (1) (2) (3) Pla (1) (2)	n-B: To improve up to in Waste water-treatment for (activated sludge) Waste water-treatment for (activated sludge) Improvement of Sewer S	water quality level r large-scale factory process) r small-scale factory rocess) //stem // main cities 30%)  remational level r large-scale factory process) r small-scale factory process)	

EAS CHN/S 101/93 M/P

PRESENT STATUS
Delayed
Discontinued

# **Description:**

Detail:

(FY 1994 Domestic Survey)

Local Government is making an effort to accomplish the Plan-A proposed by the study team, using national budget.

(FY 1997 Domestic Survey)

No information

(FY 1998 Domestic Survey)

There has been little progress in Plan A (maintenance of present water quality level) and B (improvement up to international level) due to the following reasons.

1) Shortage of fund.

2) Water quality of Poyan Lake has been drastically deteriorated.

(1)Integrated Control Project of "Four Rivers"

(FY 1998 Overseas Survey)

The project including the study is on-going (1996~2000) with the fund of the enterprises, the subsidy from the central government, and loan (300 million yuan in total). (FY 1999 Overseas Survey)

Controling the polluted four rivers will contribute to the water improvement of Poyan Lake. Amount of 120 mil. yuan of funds was gathered mostly from enterprises, reflecting the polluter-pay principle, along with the government's subsidy and bank's loan.

Construction: 1997~end of 2000

(2)Aftercare of Water Quality Observation

(FY 1998 Overseas Survey)

System for Poyan Lake

Under implementation with foreign fund (1998~2002).

(FY 2000 Domestic Survey)

No information.

\*Related Project:

(FY 1995 Overseas Survey)

In addition to the existing measurements followings are planned and will be in the designing stage.

- -Bridge construction at the exit of Poyan Lake to Yangtze Kiang,
- -Dam construction across the Poyan Lake near to Sun-Men-Siang.

The data concerning the contamination from small-scale factories in the final report seem to be insufficient. It will be necessary to investigate again.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Mar.1995
EAS CHN/S 102/93 Revised Mar.2008

$\overline{}$	COUNTRY	China	
1.	COUNTRI		
2.	NAME OF STUDY	Integrated Regional Development Planning Study on Jiujiang City, Jiangxi Province	
3.	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY M/P	
5.	COUNTERPART AGENTIME OF DEVELOPME		
	PRESENT COUNTERPA		
6.	OBJECTIVES OF THE STUDY	Setting a M/P of Jiujiang City. This M/P consists of four sectors; transport, distribution, tourism and industry. The target year is 2010.	
7.	CONSULTANT(S)	International Development Center of Japan Pacific Consultants International	
8.	STUDY PERIOD	Sep.1992 ~ Jan.1994 16month(s) ~	
9.	SITE OR AREA	Two Wards (Xunyang Ward and Lushan Ward) in Jiujiang City, Jiangxi Province. Total area is 669 km2.	
10.	MAJOR PROPOSED PR	OJECT(S)	
Th	is study selected 18 priori	ty projects which are necessary to achieve development goals and strategies and are expected to lead the reform of	
		e of Jiujiang City. The selected sectors and projects are as follows.	
Ind		ate for Small Scale Enterprises Bonded Area Development al Area for Industrial Development and Institutional Building to Attract Foreign Enterprises unical Center	
	2)Lushan Resor		
Dis	stribution : 1)Truck Interc 2)Freight Thro 3)Wholesale I	ough Transit Terminal	
	ansport: 1)Changjiang I 3)Jiujiang Nev	River South Bank High Standard Highway 2)Jiujiang City Road w Port 4)Port District Trunk Road	
Ur	Urban Development and Environment : 1)Sanitary Facilities Improvement 2)Solid Waste Treatment Facilities		
Hu	man Resources : 1)Indust	rial Management Development in Central China g University	

EAS CHN/S 102/93 M/P

PRESENT STATUS
Delayed
Discontinued

#### **Description:**

1. Industry: Balihu Special Area for Industrial Development became full of factories.

(FY 1997 Overseas Survey)

Construction of industrial estate for small scale enterprises, bonded area development, Balihu special area for industrial development, institutional building to attract foreign enterprises and establishment of Jiujiang Technical Center are planned.

(FY 1999 Overseas Survey)

Many factories were constructed in Balihu Special Area which now serves as primitive industrial complex. Main industries are architecture, electronics, machine, spinning, etc.

2. Tourism: In accordance with Lushan Resort Development, cottages are being constructed. Ropeway to the summit was installed.

(FY 1997 Overseas Survey)

Jiujiang-Lushan Convention City project and Lushan Resort Development project are being implemented. Lushan is considered as a base for tourism since it was authorized by UNESCO for "World Cultural Scenary" Cottages are being constructed smoothly.

(FY 1999 Overseas Survey)

Lushan Resort Development is at the stage of progress. Environment such as of roads, water service, and electricity was developed by government's debt financing. Development of another 2 new resort areas along with the development of Jiujiang-Lushan Convention City is coming under further review.

3. Distribution: Central government is preparing to authorize the city as a truck interchange terminal.

(FY 1997 Overseas Survey)

Truck interchange terminal and freight-through transit terminal are being constructed. Moreover, wholesale estate, distribution center are under construction.

(FY 1999 Overseas Survey)

Construction of Truck Interchange Terminal was completed and as an effect continuous goods transport is possiple. The terminal also serves as places such as basic ingredients sales centers and agircultural products sales center.

4. Transport

1)Railway

(FY 1996 Overseas Survey)

- (1) Jiujiang-Hefei Railway Construction Project: Constructed as a provisional route of the Beijing-Shenzhen line.(1996 Operation commenced)
- (2) Jiujiang-Beijing Railway Construction Project: Constructed as a part of the Beijing-Shenzhen line. (Sep. 1996 Operation commenced)

\*The existing line between Jiujiang and Hefei is not utilized in this project. The new line, Beijing-Shangqiu-Jiujiang, is to be used. The line will be extended to kowloon, Hongkong.

2) Road

(FY 1996 Overseas Survey)

(1) Jiujiang-Jingdezhen Road Construction Project: It is expected to expand the regional economic zone in the eastern part.

Implementing period:1996~2000 / Finance:Own fund (2,880 mil.Yuan), ADB loan (US\$ 150 mil.)

(FY 1999 Overseas Survey)

Jiujiang-Jingdezhen Highway and bridge will be opened at the end of 2000.

(2)

- (3) Chang ku Highway (expanded)
- (4) Jiujiang-Yoyang Highway: Wuhan Highway route opened. Drivers can drive this road directly from Jiujinag via Chang Ku Bridge.
- (5) Jiujiang City Road
- (FY 1997 Overseas Survey) Under construction

3)Port

- (FY 1996 Overseas Survey)
- (1) Jiujiang-Uhang Highspeed Boat
- (FY 1997 Overseas Survey)
- (2) Improvement of New Port: Container berth is under construction.
- (3) Construction of trunk road at port area: Changjiang road is being constructed as a trunk road.

4) Airport

(FY 1997 Overseas Survey)

(1) Jiujiang Airport: Phase I - completed / Phase II- under implementation (total investment 9.6 mil.yuan)

\*Components airport terminal, etc

Out of amount mentioned above, 41.3 mil.yuan has been invested so far.

(FY 1999 Overseas Survey) The construction has completed. The airport has already started its service.

5. Urban Development

1) Third Water Treatment Plant Construction Project

(FY 1996 Overseas Survey)

It is to mitigate the water shortage problem, which will be caused by the population increase and the expansion of commercial activities.

Implementing Period:1988~1998 / Finance:Own fund

2) Sanitation

(FY 1997 Overseas Survey) Improvement of sanitary facilities and solid waste treatment facilities is on-going.

6. Human Resources Development: Establishment of Jiujiang University is planned to raise entrepreneurs.

#### Detail

Counterpart team is following up the study results.

# (FY 1995 Domestic Survey)

On 1994, the Overseas Coastal Development Center had investigated the possibility of materialization of the new port development plan with the organized counterparts at the site

Based on the recommendations in the field of distribution including truck relaying terminal, cooperation between private companies are progressing in connection with the transportation network by trucks settling the basic center of the basin of the Chang Jiang River in Shang-hai.

(M/P+F/S)

Compiled Mar.1995

EA	AS CHN/S 2		Revised	Mar.2008
1.	COUNTRY	China		
2.	NAME OF STUDY	Waiqaochao Di	strict in Pudong New Economic Zone in Shanghai	
3.	SECTOR	Social Infrastru		
	COUNTEDDADT ACEN	NOV AT THE	Shanghai Urban Planning and Design Institute	
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY				
5.				
	PRESENT COUNTERP	ART AGENCY		
		To formulate m	aster plan for development of Waiqaochao district with the target years of 2000 and 2020.	
6.	OBJECTIVES OF THE STUDY			
7.	CONSULTANT(S)	Pacific Consult ALMEC Corpo	ants International ration	
		The Overseas C	Coastal Area Development Institute	
8.	STUDY PERIOD	Jul.1992 ~	Oct.1993 15month(s)	
9.	SITE OR AREA	Waiqaochao D	istrict in Pudong New Economic Zone in Shanghai	
	MAJOR PROPOSED PI	ROJECT(S)		
	Ports Development ontainerization of existing the containerization of existing the container of the containe	ng 2 herths, new i	ports, ship huilding	
2) I	ndustrial Development ree trade Zone developn		ports, simp outlaing	
3) U	Jrban Development			
lo	oop road, arterial road ne	etwork, LRT, resi	dential area development, town center, urban utilities development	

EAS CHN/S 202/93 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Subsequent Studies:

(FY 1995 Overseas Survey)

F/S and D/D have been conducted for some of those projects such as Pudong International Airport, the 2nd stage construction in Waigaochao District and Pudong Rail Traffic.

Construction:

(FY 1995 Domestic Survey)

The First Stage

The land reclamation and the sell-off

The Second Stage

The Yang-Gao Road that connects the port and each development areas and the Yang-Gao great bridge that connects the port and the old city have been completed the construction works. And in the old city zone, a part of the circulated expressway and the subway have also been completed. The transportation network, which will support the industrial development, are gradually constructed.

#### Effect:

(FY 1997 Domestic Survey)

- Improvement of efficiency in distribution
- Reduction of concentration of population in the city
- Reinforcement of international competitive power of Shanghai

#### Detail

Development of Pudong New Economic Zone is now paid remarkable attention as a new industrial base, in accordance with Shanghai's rapid economic growth due especially to increase of foreign direct investment. In reflect this situation, the first phase of the free trade zone has been successfully sold out. This study focuses mainly on the second phase of the free trade zone including recommendations regarding management and organization. Some of the recommendations have already approved and applied.

The LRT recommended in the study is forwarded to next step of the study. The consultant selected by international bidding is making a detailed plan.

#### (FY 1995 Domestic Survey)

Through the land reclamation and the sell-off of the first stage, now the administration systems of the Free-trade zone had been established nicely with gates and fences. Passengers going in and out are strictly checked at the gates, and the actual operation of the Free-trade zone are carrying on at the full scale.

The activities of 2nd stage have been commenced by the other organization, including development company of the Free-trade zone.

At present, the land reclamation works are progressing rapidly and the actions to transfer the inhabitants are already commenced.

At the areas nearby, it has begun to attract enterprises to the places such as Chang-Shen Gao technical area and Jin Qiao Processing and exportation area.

The Yang-Gao Road that connects the port and each development areas and the Yang-Gao great bridge that connects the port and the old city have been completed the construction works

And in the old city zone, a part of the circulated expressway and the subway have also been completed. Thus, the transportation network, which will support the industrial development, are gradually and steadily constructed to improve socio-economic infrastructures to attract foreign investment to the city very actively.

#### (FY 1995 Overseas Survey)

The findings of this study have been well utilized in order to formulate the development projects.

**(F/S)** 

Compiled Mar.1995 **EAS** CHN/S 301/93 Revised Mar.2008

1.	COUNTRY	China					
2.	NAME OF STUDY	Rapid Guided Transport System Planning in Chongqing					
3.	SECTOR	Transportation	/ Railway	4. TYPE OF STUDY F/S			
5.			Science and Technology Commission of				
	COUNTERPART AGEN TIME OF DEVELOPME						
	PRESENT COUNTERPA	ART AGENCY					
		Feasibility study	on urban guided transport system plans	ing in Chongqing.			
6.	OBJECTIVES OF THE STUDY						
7.	CONSULTANT(S)		Technical Service unts International				
8.	STUDY PERIOD	Dec.1992 ~	Jan.1994 13month(s)				
		Chongqing City Population 2,10	: area 120km 0,000(year 1990)				
9.	SITE OR AREA	2 opumon 2,10					
1)N Jia S N	10. MAJOR PROPOSED PROJECT(S)  1) New line construction for a straddle-type monorail system between  Jiao chang ko and Xin shan cun, about 17.4km  Stations: 17 stations  Main civil structures: viaduct(about 14km),tunnel(about 2.2km), depot(one place)  Electrification system: DC 1500V  Rolling Stock: 64 cars(year 2000),112 cars(2010), 160cars(2020)						
1 E	2)Construction and opening schedules 1996 : Start of construction End of 2000 : opening of the section between Jiao chang kou and Da yan cun(about 13.5km,the 1st phase construction) End of 2010 : opening of the section between Da yan cun and Xin shan cun(about 3.9km, 2nd phase construction)						

重慶市快速軌道交通計画調査

EAS CHN/S 301/93 F/S

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Subsequent Studies:

(FY 1996 Overseas Survey)

1996 F/S evaluation, examination and designing works.

The number of rolling stock has increased 64 cars to 88.

Finance:

(FY2001 Domestic Survey)

30 Mar. 2001 L/A 27.1 bill yen

(FY 1995 Domestic Survey)

An amount of 8 billion Yen has been allocated as for the first half (1996-1998) of the fourth Yen Credit for PRC.

12,085 mil. Yen is to be provided for the second-half (1999~2000) of the project.

(FY 1997 Domestic Survey)

According to information from OECF, loan agreement has not been signed yet.

(FY 2000 Overseas Survey)

Japan's ODA loan (July, 2000 E/N, 27.1 billion yen)

Contents of Loan: 14 stations, 2 main electric substations, 6 electric substations for traction, train base, control center. Apply elevated single-track system. Provide 84 stock cars in the beginning.

Difference with JICA's proposal: The number of rollling stock has increased from 64 cars to 84.

Construction:

(FY 1997 Overseas Survey)

1997~2001 Scheduled to be implemented

(FY 2000 Overseas Survey)

Construction is to be started in 2000, and completed in June 2004.

Other:

(FY 1996 Overseas Survey)

The dispatch of a JICA expert is desired to provide training for the counterpart during the project implementation period.

Also, the Chinese Government hopes the construction of the Monorail Training Center with the cooperation of the Japanese Government.

(FY 1997 Overseas Survey)

 $3\ experts$  are to be dispatched in March, 1998 for  $3\ months.$ 

**(F/S)** 

Compiled Mar.1995 **EAS** CHN/A 309/93 Revised Mar.2008

1.	COUNTRY	China				
2.	NAME OF STUDY	Facilities Improv	vement Project in Second Irrigation Section in Qianguo Area in Jilin Province			
3. 5.	SECTOR	Agriculture / (Agriculture in) General 4. TYPE OF STUDY F/S  Committee of Science & Technology, Ministry of Water Resouses in Julin Pro.				
	COUNTERPART AGEN TIME OF DEVELOPME					
	PRESENT COUNTERPA	ART AGENCY				
6.	OBJECTIVES OF THE STUDY	second Shokako	of the improvement of irrigation facilities in the second irrigation section located at the left bank of the in Julin Province.			
7.	CONSULTANT(S)	Taiyo Consultan Nippon Giken Ir				
8.	Mar.1993 25month(s)					
8. STUDY PERIOD  Feb. 1991 ~ Mar. 1993 25month(s)  Second Irrigation Section in Qianguo Area in Jilin Province Area: 37,200ha, Population: 51,575(1990)  9. SITE OR AREA  10. MAJOR PROPOSED PROJECT(S)  1.Improvement of the New Second Pumping Station and Water Facilities 2. Construction of Fish Farm 3. Land Consolidation 4.Improvement of Water Management Facilities -Water Supply Station: vertical mixed flow type 2,000(Q=9.4m3/s) X 3 64ZLB-50 1,625(Q=8.4m3/s)(Made in China) -Water Facility: 85.3km -Drainage Station: 20ZLB-100 500(Q=0.5m3/s) X 2(Made in China) -Drainage Facility: 89.6km -Fish Farm: 250ha -Land Consolidation: 8,005ha, Farm Road; 126km, Bridge; 24 places -Water Management Facilities:						

EAS CHN/A 309/93 F/S

	Completed or In Progress	Promoting
DDECENTE COLATOLIC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

In respect of the Second Irrigation Section, which is the object of F/S on this project, it has been on urgent task to construct pumping station diverged at 48t per second from the Second Shokako which is water resources, main canals, and Water Management Facilities along the pumping station. Under these circumstances, the Ministry of Water Resources in China has requested the grant aid of Japan.(1994,5)

#### (FY 1995 Domestic Survey)

The Jilin Provincial Foreign Economic Cooperation Bureau has submitted the official request for the grant aid to the Ministry of Foreign Economic Relations and Trade.

#### (FY 1996 Domestic Survey)

No official request has been submitted for the procurement of Japanese grant aid assistance.

(Japanese government has freezed financial assistance to China from May. 1995 till May. 1997)

#### (FY 1997 Domestic Survey)

Trough priority is low, this project is considered important among the National Development Plan. Official request will be submitted soon.

#### (FY 1997 Overseas Survey)

In 1997, Trade and Economy Section submitted a request to Japanese Government for a grant aid assistance. (1.3bil.Yen)

Given the request, JICA office conducted a survey on background of the request in August 1997.

Construction is scheduled from May.1998 to Aug.2002.

#### (FY 1998 Domestic Survey)

The request for a grant aid assistance was submitted again in Sep.1998.

#### (FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Preliminary survey is to be conducted by JICA within this fiscal year.

\*Contents: Amount 221,225 yuan(Japan's grant aid: 97,177yuan, local fund:37,680 yuan, Chilin Province government fund: 86,368 yuan)

Contract of Japan's grant aid has not been concluded.

#### \*Construction Implemented with the Chinese Budget

This project is referred to the Eighth Five-Year Plan in Julin Province. Chinese government has been constructing the Chimonto drainage station and the canals along it which are the main drainage facilities in the study area. The drainage station is expected to complete in 1994.

With regard to the First and Third Irrigation Sections, Chinese government carried out the construction of tailed canals based on the Five-Year Plan. (FY 1996 Domestic Survey)

The Development Projects in Qianguo Area were commenced before the implementation of this Study. The improvement works are still in progress. The construction of the Chimonto drainage station was incorporated into the original project and was not newly proposed in this F/S. In fact, at the time when this F/S was commenced the construction works were about to be completed. The project proposed in this F/S was formulated on the assumption that the facilities which had been constructed or under construction in the original plan could be utilized for the project implementation. In other words, the utilization of the Chimonto drainage station was taken into consideration when the project was formulated. Therefore, the construction of the Chimonto drainage station should be considered a part of the proposed project while it was implemented with the local fund and was commenced before this F/S was started.

(M/P+F/S)

Compiled Sep.1995 **EAS** CHN/S 203/94 Revised Mar.2008

1.	COUNTRY	China						
2.	NAME OF STUDY	Primary Road Network Development Study in Zhe-jiang Province						
3.	SECTOR	Transportation	/ I	Road		4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Ministry of Tr	ansportation, Zh	e-jiang Province			
	PRESENT COUNTERPA	RT AGENCY						
6.	OBJECTIVES OF THE STUDY	Master Plan for	the network of	trunk road and I	Feasibility Study for the	e route	es with higher priori	ty.
7.	CONSULTANT(S)		Katahira & Engineers International Nippon Koei Co., Ltd.					
8.	STUDY PERIOD	Aug.1992 ~	Jul.1994	23month(s)				
9.	SITE OR AREA	M/P:Whole area F/S:Hang-zhou (						

## 10. MAJOR PROPOSED PROJECT(S)

- 1) Target of this project is to construct:
  - 1.Network of expressway approx. 1,600km
  - 2. Network of general trunk road approx. 11,000km

upto the year of 2020, with a total estimated amount of about 40 billion yuan.

- 2) For the time being, at the area of Zhe-jiang province, the motorway connecting Han-zhou, Jin-hua and Quzhou, and Hang-zhou circular road connected with above-mentioned motorway will be renovated with the first priority.
- 3) Extension of the road will be a length of 231.23km (width 24.5m,
- 4 lanes, designed speed 100km/hr), and the construction works will be consisted of 93.9% of earthworks, 5.4% of bridge construction and 0.7% of tunneling. 15 interchanges, 1 junction, 5 service areas and 5 parking areas are also constructed.
- 4) In future, the road will be extended towards west until Jiang-xi province as for a part of Shang-hai Kunming line, one of the main trunk line of the National highway.

EAS CHN/S 203/94 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

(FY 1996 Domestic Survey)

The request for Yen Loan has been submitted.

(FY 1997 Domestic Survey)

Request for OECF loan was submitted to construct a highway connecting Hang-zhou and Qu zhow (231km). OECF will examine the request from December to March.

(FY 1998 Domestic Survey)

Chinese government submitted the request for yen loan in FY 1998.

Amount requested: approx. 80 billion yen.

Project contents: 231km long, 4 lanes, 10 km/h in designed speed, 13 inter changes, 5 service areas, 2 traffic control centers, bridges (long: 14, medium/small: 134), 1 tunnel.

The reason why the request for loan has not been approved is that although OECF conditioned the management of construction by foreign consultants, especially Japanese consultants, Chinese government has not accepted this condition. However, some actions are taken for the agreement of OECF loan.

(FY 1999 Domestic Survey)

A highway connecting Hang-zhou and Qu zhow construction project (Dec.1998 L/A 300mil.yen)

Construction of expressway(237km) between Hangzhou and Quzhou in Zhejiang Province, as a part of the National Trunk Highway from Shanghai City to Kunming in Yunnan Province.

(M/P+F/S)

Compiled Sep.1995

**EAS** CHN/A 204/94 Revised Mar.2008 1. COUNTRY China Integrated Agriculture Development Project in Heilongjiang 2. NAME OF STUDY 3. SECTOR / (Agriculture in) General 4. TYPE OF STUDY M/P+F/S Agriculture General Department of Heilongjiang National Firm COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY Formulation of the basic plan on agricultural development as a part of the integrated plan. Selection of a model area and conducting feasibility study. OBJECTIVES OF THE Nippon Koei Co., Ltd. 7. CONSULTANT(S) Hokkaido Engineering Consultants Co., Ltd. Jul.1993 Nov.1994 16month(s) 8. STUDY PERIOD Nonjiang National Firm (54,000ha) and Yoyi National Firm (189,000ha) in Heilongjiang Development Area 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Cultivation/Infrastructure: Improvement of drainage, irrigation of uplands and paddy fields and farm roads.

Livestock: Forage production, breeding, improvement of breeding technology, establishment of an animal husbandry center.

Support for agricultural production: Seeds processing, sryers, facilities for storage, warehouse for materials, repairshop for agricultural tools and equipment, etc.

Agricultural equipment: Renewal or new introduction of big agricultural equipment

Processing of agricultural products: Rice mill (Nonjiang), flour mill (Yoyi)

Rural infrastructure: Rural roads, water supply and drainage, heating apparatus, power distribution and communication facilities.

Inland water fishery: Only at Yoyi National Firm.

It has been recommended to separate the administration and the management when above mentioned activities are implemented.

EAS CHN/A 204/94 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

Subsequent Studies:

Dec.1995~Mar.1996 OECF SAPROF

Two farms out of 48 picked up for SAPROF and their development plans were referred to confirm and examine the project contents. EIA was also conducted. (FY 1999 Overseas Survey)

OECF/ SAPI is under implementation since 1999.

\*Contents: Environmental survey of the damp area around the dam in Sanjiang Plain

#### Finance:

Oct.1996 All examinations necessary for the provision of loan were finished. The preparation for the signing of L/A is in process.

Dec.1999 L/A 14,910 mil.yen

(Sanjiang Plain Agricultural Development Program)

#### \*Contents of the loan

Loan will be lent to state-operated farm through Chinese ExIm Bank for the purpose of purchasing the materials for farming and construction.

#### Impacts expected:

Increased food production and stabilization of food supply through improvement of rice field with low productivity and newly cultivation are expected. The project will also contribute to mitigate the difference between regions and regional economic development. 0.7 mil.ton of increased production is expected by implementation of sub-project.

#### Remaining Projects:

(FY 1998 Domestic Survey)

All the proposed projects are not covered by Japan's ODA Loan.

(FY 1999 Overseas Survey)

Japan's ODA Loan is not intended for Inland water fishery. Inland water fishery had not been included at the point of SAPROF(1995~1996) and China considers to implement it under own fund.

(F/S)

Compiled Sep.1995

CHN/A 310/94 **EAS** Revised Mar.2008 1. COUNTRY China Improvement Project of Drainage System in Qixing-Polder, Shunde City, Guangdong Province 2. NAME OF STUDY 3. SECTOR / Irrigation, Drainage & Reclamation TYPE OF STUDY F/S Agriculture 5. Water Conservancy and Power Department of Guangdong Province COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Planning on drainage system and development in rural agricultural area. OBJECTIVES OF THE STUDY Taiyo Consultants Co., Ltd. 7. CONSULTANT(S) Feb.1994 Mar.1995 13month(s) 8. STUDY PERIOD Qixing-Polder, Shumde City, Guangdong Province 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Drainage Plan in rural agricultural area: 4 places 1)New establishment and renewal of drainage pump station 2)Maintenance of inland river flow 43.9km 3)Repair of lock gates 4) Maintenance and repairment of river bank 52.4km 5)Control facilities and inspection equipment 1 set Basic Plan of rural development: 1)Repair of lock gates 2)Reinforcement of river bank 52.4km 3)Arrangement of the fish pond 2,000ha 4) facilities for aquaculture 1 set

EAS CHN/A 310/94 F/S

	Completed or In Progress	Promoting	
	Completed		
PRESENT STATUS	Partially Completed	Delayed or Suspended	
	Implementing		
	Processing	Discontinued or Cancelled	

# **Description:**

#### Finance:

Own fund (for a part of project).

In July 1995, the State Planning Committee received the request for the Japanese Government loan.

#### Construction:

(FY 1997 Domestic Survey)

As new establishment of Tong-Hai drainage pump station and accompanying trunk drainage canal, a part of the drainage plan in rural agricultural area, phase I of this project, is necessary in very urgent. Chinese side has been completed it in December 1995.

#### Detail

The necessary measures have been taken to request the Japanese Yen Credit in order to implement the remaining part of project (relocation of aquaculture site). (FY 1996 Domestic Survey)

This project aims to improve the drainage system with which the traditional agricultural method has been adopted. The increase of high-quality fish produce will enable to finance the O/M cost.

(F/S)

EAS	CHN/S 3	17/94		Revised	Mar.2008
			( <b>F/S</b> )	Compiled	Aug.1995

1.	COUNTRY	China								
2.	NAME OF STUDY	West-bound Tr	unk Road Constr	action Project is	n Municipality	of Xiamen				
3.	SECTOR	Transportation	/	Road		4.	TYPE OF STU	JDY F/S		
5.	COUNTERPART AGEN TIME OF DEVELOPME	CY AT THE	Transportation 1		City	,				
	PRESENT COUNTERPA									
6.	OBJECTIVES OF THE STUDY		Study on the con elopment plan of			road, one of t	he road network	of Xiame	en City, which	h will
7.	CONSULTANT(S)	Chodai Co., Ltd Pacific Consult	d. ants International							
8.	STUDY PERIOD	Mar.1993 ~	Jul.1994	16month(s)						
9.	SITE OR AREA	Xiamen (Amoy	City and sorrou	nding area						
10	MA IOD DDODOSED DD	OTECT(S)								

#### 10. MAJOR PROPOSED PROJECT(S)

- 1)Construction of a suspension bridge with a total length of 1,108m and a length of central span of 648m.
- 2)Construction of a Prestressed Concrete Box Girder Bridge with a length of 380m over the sub sea route.
- 3)Construction of an approaching overhead bridge with a length of 1,652m.
- 4) Construction of an approaching road with a distance of 2,786m.
- 5)Others (Construction of Tall Gates, Approaching Ramps, etc.)

EAS CHN/S 317/94 F/S

Completed or In Progress Promoting

Completed
PRESENT STATUS
Partially Completed
Delayed or Suspended
Implementing
Processing
Discontinued or Cancelled

#### **Description:**

(FY 1997 Domestic Survey)

Apr. 1996~ B/D (Own find 320,000US\$+4mil.yuan)

Difference with JICA's proposal:

(FY 1997 Domestic Survey)

Splitting space of a main bridge was changed from 220+650+220m to 230+648+230m.

#### Finance:

First half

(FY 1996 Overseas Survey)

Own fund (2,776 mil. Yuan)

Second half

(FY 1997 Domestic Survey)(FY 1997 Overseas Survey)

Dec.1997 Im.Ex Bank L/A 130mil.\$ (schedule)

\*contents of a project

provision of materials (cable, etc.)

#### Construction:

(FY 1996 Overseas Survey)(FY 1999 Domestic Survey)

18 Dec.1996 Commenced.30 Dec.1999 Completed and open.

Contractor / Lower part - Kantong chodai, 1 other

Upper part - 4 Local contractors

Consulting Service / Chodai Co. Ltd, Chinese company

#### Detail:

(FY 1995 Overseas Survey)

The foreign fund with an amount of 1.26 bil. Yuan (equivalent to 0.15 bil. USD) is not available as yet.

#### (FY 1997 Overseas Survey)

Study on fee, and construction will be carried out in FY 1998.

#### (FY 1998 Domestic Survey)

Construction as a whole has been smoothly progressed. The funds for covering the construction expensed have been procured.

#### (FY 1998 Domestic Survey)

Progress situation was as follows as of November 1998.

Main bridge: main cable and main girder are under construction.

Sub bridge: upper part of the pier was constructed and lower part of the pier is under construction.

Attached bridge: upper part of the pier is under construction and lower part of the pier was almost constructed.

Attached road: the foundation is under construction.

# STUDY SUMMARY SHEET (M/P)

(NI/P) Compiled Jul.1996
EAS CHN/S 103/95 Revised Mar.2008

Total Air Qualit Administration	y Management Study fo  / Environm			
Administration	/ Environm	otal Air Quality Management Study for Linzhou City and Acid Deposition Mo		
			4. TYPE OF STUDY M/P	
	National Science and To	echnology Council De	ept. of Social Development	
COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY				
ART AGENCY				
and Guangzhou		rget year of 2005), fac	ct-finding on acid precipitation in Liuzhou, Guilin, Wuzhou	
Pacific Consulta	ants International			
Nov.1993 ~	Dec.1995	25month(s)		
	, wuznou, Guangznou			
f gas as fuel for correction boiler fuel at common gas at thermal positive.  I gas at fertilizer gas at fertilizer on administration con Plant to subur	ity center. ower station. r plant. n. bs.			
	Air pollution co and Guangzhou  Research, Analy Pacific Consulta  Nov.1993 ~  Liuzhou, Guilin  Gas as fuel for cor boiler fuel at c gas at thermal politiy.  st gas at fertilize on administration ce Plant to subur	Air pollution control plan in Liuzhou (ta and Guangzhou.  Research, Analysis and Computing Pacific Consultants International  Nov.1993 ~ Dec.1995 ~  Liuzhou, Guilin, Wuzhou, Guangzhou  OJECT(S)  gas as fuel for civil at town area. or boiler fuel at city center. gas at thermal power station.	Air pollution control plan in Liuzhou (target year of 2005), fa and Guangzhou.  Research, Analysis and Computing Pacific Consultants International  Nov.1993 ~ Dec.1995 25month(s) ~  Liuzhou, Guilin, Wuzhou, Guangzhou  OJECT(S)  gas as fuel for civil at town area. or boiler fuel at city center. gas at thermal power station. ility. st gas at fertilizer plant. on administration. ne Plant to suburbs.	

EAS CHN/S 103/95 M/P

PRESENT STATUS

Delayed

Discontinued

#### **Description:**

Finance:

(FY 1997 Domestic Survey)

Total of own fund --- approx. 8bil.yen (schedule), Total of OECF loan --- approx. 10bil.yen (schedule)

OECF loan:

(FY 1997 & 1998 Domestic Survey) (FY 1998 Overseas Survey)

Dec.1996 L/A 2,300 mil. Yen (Liuzhou Environmental Improvement Project)
12 Sep.1997 L/A 3,679 mil. Yen (Liuzhou Environmental Improvement Project II)
25 Dec.1998 L/A 4,759 mil. Yen (Liuzhou Environmental Improvement Project III)

Contents: Support for construction of gas supply facility and waste disposal plant and environment improvement at plants.

1) Utilization of gas as fuel for civil at town area (the 3rd) (proposed project 1) (to be completed by 2002). 2) Waste disposal plant project (to be completed by 2000). 3) Denitration of NO2 exhaust gas at fertilizer plant (proposed project 5) completed by 2000). 4) Desulfurization of gas from coke furnace at steelworks (proposed project 8) (to be completed by 1999). 5) Transfer of zinc plant with environmental consideration (proposed project 7) (to be completed by 2003). 6) Desulfurization of smoke gas at thermal power station (proposed project 3) (to be completed by 2003).

#### Progress Situation & its Effects:

(FY 1999 Overseas Survey)

1) Promotion of utilization of gas as fuel for civil at town area.(Completion scheduled by Dec.2002): On-going. The situation of air pollution will be alleviated. 2) Waste disposal plant project(Completion scheduled by Mar.2001): Under Construction. 600tons of wastes will be disposed per day. By this, the problems of waste disposal and secondary pollution will be solved and as a effect, air & water pollution will be alleviated. 3) Denitration of NO2 exhaust gas at fertilizer plant(Dec.1999: Test run, Mar.2000: Completion): 816.9tons of NO2 exhaust gas will be reduced per day. There are remarkable impacts of improvement in Liuzhou's atmosphere. 4) Desulfurization of gas from coke furnace at steelworks(Completion scheduled by Jun.2000): Under construction. 0.178 mil. tons of SO2 exhaust will be reduced per year. 5) Transfer of zinc plant with environmental consideration(Completion scheduled by May 2003): Designs are now being drawn. With the transfer of the factory which is the source of pollution, remarkable improvements of air & water environments are expected. Effective measures against exhaust air, drainage, and waste problems will also be taken in factory transferred area. The target amount of SO2 exhaust is 0.128 mi. tons per year. 6) Desulfurization of smoke gas at thermal power station(Completion scheduled by Jun.2003): Desulfurization techniques are now being investigated. SO2 exhaust of 2 power generators will be reduced from 10,900 mil. tons/year to 3,400 mil. tons/year.

#### (FY 2000 Domestic Survey)

1) Promotion of utilization of gas as fuel for civil at town area: Situation in progress: 65% 2) Utilization of petroleum for boiler fuel at city center: The conversion from coals to petroleum has been promoted. 3) The thermal power station (20 mil kw, 2 plants): Fund: Yen loan, Under procedure. 4) Improvement of boiler facility: With the conversion of the fuel, the coal boilers in the governmental offices, hospitals, hotels and schools were replaced to the petroleum boilers. 5) Denitration of NO2 exhaust gas at fertilizer plant: The construction has been completed and conducting the trial operation. 6) There is no progress. 7) Transfer of factories as Zinc Plant to suburbs: F/S: completed, under procedure for D/D. 8) Desulfurization of gas from coke furnace at steelworks: The construction of the desulfurization plant has been completed and will receive inspection within one year.

#### (FY 2001 Domestic Survey)

Utilization of town gas: Progress situation: 96%. Utilization of petroleum for boiler fuel at city center: All boiler facilities fueled coal will be removed. Each user is to provide the finance and convert into the boiler fueled oil or electricity. Thermal power station (Additional installation of the desulfurizers on the present two power units with a capacity of 200 thousand kw): preparation step of the early part. Denitration of NO2 exhaust gas at fertilizer plant: All work was completed and all is well after the trial. The average exhaust density is 665.5 mg/m3 and the exhaust quantity is 139 kg/h of NO2 to make clear the second standard stipulated by the National Comprehensive Emission Standards of Air Pollution Source with the successful social and environmental beneficial effect. Transfer of factories as Zinc plant to suburbs: The D/D was implemented. Desulfurization of gas from coke furnace at steelworks: It was completed in Dec.2000 and the operational situation is well. It was confirmed that the rate of desulfurization was 99.7 %. The proposed project (6) as the Desulfurization of smoke gas at thermal power station Project is delayed. This Project is the most important measure on this Development Study. The reason of the delay is that the central government does not approve the construction of desulfurization facility. Some pressure is needed.

### Others:

(FY 1998 Domestic Survey) Standard density of SO2 was changed from 0.224mg/m3 in 1995 to 0.124mg/m3 in 1997.

#### Backgrounds:

(FY 1996 Domestic Survey)

It is learnt that the procedures for fund assistance on Pollution Source Control (the 4th Yen Loan) is on progress and also at Liuzhou, following measures are being taken by own fund.

1) Utilization of town gas (the 3rd). 2) Improvement of boiler facility. 3) Desulfurization of smoke gas at thermal power station. 4) Improvement of combustion method. 5) Transfer of zinc plant. 6) Denitration of NO2 exhaust gas at fertilizer plant. 7) Desulfurization of gas from coke furnace at steelworks. 8) Fuel change of boiler (to petroleum) at city center.

#### (FY 1996 Overseas Survey)

In order to obtain OECF loan more easily, the number of the projects was reduced. The left projects have been and/or will be on their ways gradually. The air pollution and acid disposition monitoring was planned to be continuously conducted. However, due to the shortage of monitoring device and equipment and of the running cost, it has not been implemented as it was planned.

#### (FY 1998 Domestic Survey)

Problems in procurement of local fund have delayed the implementation of desulfurization project on smoke gas at thermal power station. The prospect for the transfer of Zinc Plant to suburbs is vague due to the difficulty in local fund's procurement and land acquisition.

(FY2005 Domestic survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Jul.1996

EA	AS CHN/S 2	
1.	COUNTRY	China
2.	NAME OF STUDY	Shanghai Pudong International Airport Basic Planning Study
3.	SECTOR	Transportation / Air Transportation & Airport 4. TYPE OF STUDY M/P+F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	
	PRESENT COUNTERPA	ART AGENCY
6.	OBJECTIVES OF THE STUDY	M/P on Shanghai Pudong International Airport Basic Plan. F/S on Priority Improvement Plan based on M/P.
7.	CONSULTANT(S)	Nippon Koei Co., Ltd. Nikken Sekkei Ltd.
8.	STUDY PERIOD	Jun.1994 ~ Aug.1995 14month(s)
10.		ROJECT(S)  ort with 4 runways in Pudaong Zone, Shanghai city (25km2). One runway and necessary facilities are planned to provide lational Foundation Day.

EAS CHN/S 204/95 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

Subsequent Study:

1995~1997 Shanghai Pu-dong International Airport Study (D/D)

(FY 1997 Domestic Survey)

Project name:

"Shanghai Pudong International Airport Construction Project"

Funding:

Own fund Sep.1997 L/A 40bil.yen

Content:

Construction of a passenger terminal (0.2 mil.m2), construction of a runway (4km) and accompanied facilities.

Construction:

(FY 1997 Domestic Survey)(FY 1999 Overseas Survey)(FY 1999 Overseas Survey)

Sep.1.1996~ The foundation processing work commenced

Nov.1996~ Pile draiving at Terminal Building to be commenced

Oct.1999 to be completed

Contents:

1) Runway

One 4000\*60m main runway

Two 4000\*29m parallel taxi way

Four vertical taxi way

Six express evacuation taxi way

800 thousand square meters apron

2) Navigation light

One main navigation light transformer substation

One Sub navigation light transformer substation

3) Refuel facilities

Pipeline system

4) Fire & rescue center

One fire station

One duty station

One emergency medical center

The project is being carried out so called CM, starting the construction works from possible parts side by side with design work.

Profit effects: (FY 2001 Domestic Survey)

Resulting from opening of the new airport, the new airport company jointed with the old airport started its operation. Therefore, the plan to shift the organism system of the old airport to the new one was gradually taken, the number of flights which were a few at the beginning of its open are also increasing gradually, and it is functioning as an international gateway airport in Shanghai now.

#### Related Projects:

(FY 2001 Domestic Survey)

2001 Aug.: The approach radar control system was commenced to operate.

2001 Oct.: The exclusive apron and terminal building with 320,000 m2 for VIP were completed for the APEC Conference. The terminal building for CAT II was completed 3 years after the commencement of its operation.

2003 scheduled: The high speed train between the airport and Shanghai city (total length is about 30 km) are under construction.

(FY 1998 Domestic Survey)

Construction has been progressed as scheduled.

(FY 1999 Overseas Survey)

The outputs are on a trial from Oct. 1. The final test will be done after a trial use of one year.

Remaining Projects:

(FY 1997 Domestic Survey)

Four 4km runways are scheduled to be constructed in Phase IV (2020).

(FY 1999 Overseas Survey)

The construction plan of Phase II has not been under consideration yet.

(FY 2001 Domestic Survey)

Construction Progress (Phaze II): Ground improvement work for the second runaway is almost completed. The runaway construction is to be completed by 2005. The second terminal biulding construction plan to complete the biulding and the associated facilities by 2010, is in progress.

(FY 2005 domestic survey)

After the study conducted by JICA, consultant who have conducted the study has advised higher categorisation of Shanghai Pudon Airport security facilities. Funding for the advisory has been made internally. Although expansion of the airport has been continuously made, there is no information to be specified in relation with the study.

(M/P+F/S)

Compiled Jul.1996 **EAS** CHN/S 205/95 Revised Mar.2008 1. COUNTRY China Comprehensive Transportation System in Dalian City 2. NAME OF STUDY 3. SECTOR / Urban Transportation 4. TYPE OF STUDY M/P+F/S Transportation Dalian Public Government National Science and Technology Committee COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY 5. PRESENT COUNTERPART AGENCY M/P on Integrated Penetration Plan with target year 2020. F/S on projects with priority. 6. OBJECTIVES OF THE STUDY Fukuyama Consultants International, Inc. 7. CONSULTANT(S) Jul.1994 Jan.1996 18month(s) 8. STUDY PERIOD Dalian City 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) M/P (1) Public Transportation facility 1. High-Speed Track construction project 2. Bus improvement project (2) Road Improvement Project (3) Traffic Control Project (4) Other Transportation Facilities project 1. Parking lot improvement project 2. Traffic terminal project F/S (1) High-speed Track Transportation Phase I (the construction of South-North Line). (2) Traffic Control Project

EAS CHN/S 205/95 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(1)Construction of High-speed Track Transportation (phase I)

(FY 1996 Overseas Survey)

The formulation of High-Speet Track Transportation Project (F/S on South-North Line) provided the counterpart with the useful experience which can be utilized in the modification of the Dalian City Comprehensive Transportation-System Plan and the improvement of the High-Speed Track Transportation Network.

However, because of the national macroeconomic policy and the financial constraints, the implementation of this project is postponed and no related D/D has been undertaken.

(FY 2000 Domestic Survey)

The proposed South-North Line has been partially changed and the Line has been constructed with the West Sea Line. The 2nd stage construction, the Line to the Economic Development Area is under construction.

(FY 2001 Overseas Survey)

No.1

Construction period: November 1999 - July 2001

Content: Total length: 9km

Funding: Cost: 160 million RMB, Funding party: Dalian municipality budget

Progress: 9km construction has practically completed and is planned to open for service in 2002.

No 3 express way

Content: Total length: 49.15km, 14 station Funding: Cost - 3,701 million RMB Progress: Planned to be in service from 2004

#### (2)Traffic Control Project

The study proposed improvement on 16 crossings. Nakayama Park crossing and Friendship Park crossing will be improved in 1996 and other proposed crossings will be fixed in sequence.

(FY 2000 Domestic Survey)

The proposed 16 crossing have been already improved in 2000.

(FY 2001 Overseas Survey)

Funding party: Dalian municipality budget

Period: 1996 - 2000

Content:

- 1) Construction of traffic network: (1.1) Most of the construction has completed, partially under construction and others are waiting for the completion. (1.2) Construction of 85.6km of highway in 4 central district and along economic development area. (1.3) Networking 138.0km long main highway and 170.1km long sub-highway
- 2) Traffic management plan: (2.1) Improvements of traffic facilities, (2.2) 5,500traffic sign, (2.3) 200 thousand square meter road mark (2.4) Construction of new roadway according to traffic light and speed, (2.5) Alteration of intersection, (2.6) Alteration for 16 intersections indicated in the study, (2.7) Improvement of roads and one-way roads, (2.8) One-way has increased from 22 before 1996 to 51 (2.9) Adoption of traffic restrictions (14 passport, Restricted access to the city for freights over 5 tons in daytime, Limited access for freights below 5 tons, Peak restrictions, Restricted access to Chungshan road for empty taxis). (2.10) Installment of wide-area traffic control system (Installment of England made SCOOT system, Investments of 4.7 million RMB to improve comprehensive public traffic security management system). (2.11) Improvement of institution (Traffic zone and management: 1998 Established planning division, 2000 Established traffic congestion relief process office, 2002 Established traffic discipline promotion division). (2.12) Promotion of traffic safety education (Primary education, Established elementary traffic police and recognized concurrent work system for traffic police in schools)

Benefit: Traffic congestion has reduced and gas emission has decreased.

(3). Heishijiao public bus station improvement plan

(FY 2001 Overseas Survey)

Funding

Funding party: Dalian municipality Amount: 3.8 million RMB Period: October 1999 - January 2001

Content: Substituting Heishijiao as a long-distance bus terminal to Lushun via southern districts for banned Tangshan bus stop. 203 buses on 3 lines will be in service transporting 3,000 to 4,000 people a day and 6,000 to 8,000 on active day.

Benefit: 1) Comfortableness of waiting has increased and service facilities such as bank, entertainment, and shopping has been added by constructing a waiting lounge. 2) Promoted development for business and culture by centering people's activity. 3) Contributed to travel industry by improving traffic and atmosphere conditions.

#### Context:

#### (FY 1997 Overseas Survey)

In regard to a rapid railway, D/D and construction which were to be proceeded by Chinese side, have not been conducted due to the lack of finance. In Dalian City, two other development studies namely Study on Traffic Pollution and Study on Establishment of Environmental Model Area, were undertaken continuously. Dalian City considers that this study and study on Traffic pollution be integrated into Establishment of Environmental Model Area Project. Therefore implementation of this project would be after the completion of development study above mentioned. In case that the city is selected as a model city, Dalian City has an intention to include urban traffic project into the Environmental Model City Project. Application of yen loan will be difficult for a while, as the Department of the States noticed in 1996 that no request for loan in regard to railway construction would be accepted for several years except for request from Beijing, Shanghai and Guangzhou City.

#### (FY 1999 Overseas Survey)

Due to the shortage of fund, even the proposed priority plans of this project haven't started yet. However, in order to alleviate the condition of traffic congestion, Xian City has promoted some measures such as road development of port, construction of road(city~northeast route), etc. Improvement of Trolley is now under implementation. Future prospects:

Due to organizational issues, Dalian city can not establish unified authority for traffic management. Currently, transit, rural, and port authority, transit management committee, and traffic congestion relief office have gradually started to work on integrated management, which improvement for the unified transit management is anticipated.

(M/P)

Compiled

Jul.1998

**EAS** CHN/S 101/97 Revised Mar.2008 1. COUNTRY Integrated Management Master Plan for the Water Environment of Li-Jiang River 2. NAME OF STUDY / Environmental Problems TYPE OF STUDY M/P 3. SECTOR Administration Guangxi Zhuangzu Zizhiqu Science and Technology Committee 5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Make an integrated management plan based on the survey and analysis of the water environment condition of Li-Jiang River on issues such as insufficient water in the dry season, water contamination from domestic wastewater and industrial effluent, and effect on tourism caused by damage to scenery. **OBJECTIVES OF THE** 6. STUDY Central Consultant, Inc. 7. CONSULTANT(S) CTI Engineering Co., Ltd. Jun.1996 Sep.1997 15month(s) 8. STUDY PERIOD Li-Jiang basin upstream from the Yangshuo with the catchments area of approximately 5,600km2 9. SITE OR AREA

#### 10. MAJOR PROPOSED PROJECT(S)

- 1. Flood and Water Resource
- Li-Jiang embankment, Flood forecasting and warning system, Gullin City inland water control, Diversion channel scheme for Li-Jiang River and Taohuajiang River, Chuanjiang dam, Improvement of Li-Jiang navigation system, Xiaorong-jiang scheme / Wulixia scheme
- 2. Securing of Water Quality

Guilin City sewage, Lingchuan prefecture sewage, Industrial pollution control for Nanxihe River, Industrial pollution control from Taohuajiang River, Industrial pollution control for Xiaorong-jiang River

- 3. Ecosystem and Environment Scenery
- Li-Jiang watershed forest plantation, Li-Jiang waterfront plantation, Supoprt for rural areas, Ecosystem study for Li-Jiang River, Ecosystem conservation and enlightenment, Clean Lake Shanhu and Yonhu.
- 4. Organization and Institution

Improvement of water use system, Improvement of underground water use system, Water tariff system, Industrial pollution control and strengthening, Water environment management committee, River environment management information system

EAS CHN/S 101/97 M/P

PRESENT STATUS
Delayed
Discontinued

#### **Description:**

(FY 1998 Domestic Study)

Some of selected projects implemented by domestic fund and World Bank Loan has been implemented.

As for the Japan's grant aid, the following project is requested.

Country: China

Project Name: "Maintenance Project of Li-Jiang River Environmental Management Information System in Guangxi Zhuangzu Zizhiqu"

Facilities which will be maintained as river environment management information system are as follows.

- (1) Observation Facility: Water quality automated observatory / Underground water observatory
- (2) Flood Forecasting and Warning Institution: Hydrology observation telemeter, Rain gauge rader
- (3) Environmental Information Center: Information collection and delivery tele-equipment, Information processing equipment, related Software (including GIS etc.)
- (4) PR Facilities of Environment in Li-Jiang River: Museum of Li-Jiang River ecosystem, Equipments for exhibition, PR car

#### (FY 2001 Domestic Study)

The above projects were requested officially as the grant aid projects; however they have not been approved since their priority is low for the government and the grant aid project for poverty relief at TIANHU district was selected from the same autonomous region.

1. Flood and Water Resource

(FY 2001 Domestic Study)

Li-Jiang embankment, Flood forecasting and warning system, Gullin City inland water control: Implementing with own fund

Diversion channel scheme for Li-Jiang River and Taohuajiang River, Chuanjiang dam: Still planning

2. Securing of Water Quality

(FY 2001 Domestic Study)

Guilin City sewage: Being implemented with the WB fund Lingchuan Prefecture sewage: Implemented with own fund

Others: Implemented with own fund and private fund

(FY 2002 Overseas Study)

Cleaning work for the surrounding areas and bank protection work of Lake Guanhu, Shanhu and Yonhu were implemented. Cleaning work was completed in in March 2000 and protection work was completed in January 2001.

Shutting out pollution construction of Lake Guanhu was implemented by WB and was already completed.

Shutting out pollution construction of Lake Shanhu was implemented by national bond and was already completed.

The total cost for 3 lakes is RMB 44.36 million, consisted of RMB 37.88 for the government bond and RMB 3.6 million for own fund, and RMB 3 million for the WB loan.

3. Ecosystem and Environment Scenery

(FY 2001 Domestic Study)

Li-Jiang weatershed forest plantation, Cleaning of Lake Shanhu and Yonhu: Implementing with own fund

Others: Unknown

4. Organization and Institution

(FY 2001 Domestic Survey)

River environment management information system: Requested as a grant aid project to the central government.

Others: Unknown

#### Other information

(FY 2001 Domestic Study)

The Guilin City and Guilin District were merged as a new administrative district in order to integrate the projects on Li-Jiang River. Moreover, the Water Environment Committee was set up for the water environment control of Li-Jiang River and are working on the project along the proposal by this study. (FY 2001 Overseas Study)

The Guilin and Li-Jiang River environmental project financed by the World Bank is a priori construction project in Guilin City and Jiangxi Province. It consists of seven projects including the establishment of urban wastewater treatment system and merging system, waste management, water supply to Li-Jiang River, erosion protection, environmental improvement of three lakes, improvement of residential estate and establishment of wastewater treatment company, environmental protection, and enforcement of Li-Jiang River catchments water resource administration. Total investment has reached RMB 661.21 million (the World Bank loan is USD 41.504 million).

Implementation status:

Implemented: Construction works of distribution pipes for wastewater drainage in Lake Cui Hu, Construction of a garbage and green landfill in Chenkou City, Construction works for preserving water and soil in Wulixia

Being implemented: Bank protection works in Li-Jiang River, Construction of a distribution pipe network for wastewater drainage of improvement works in the three lakes, Improvement of residential complexes

Being prepared: Afforestation in both banks of Li-Jiang River, Construction works for preserving water and soil

(FY 2002 Overseas Study)

Contracts were made for 21 projects of the "Integrated Environmental Care Project in Li-Jiang River, Guilin" which Guilin City implements with loan of the World Bank, out of which 14 projects were completed. Construction works of the remaining seven projects have already been started.

Riverbank protection works in Li-Jiang River: Out of 9 projects in which construction has already been started, 4 projects were completed and handed over in August 2001. The remaining 5 projects will be completed and a test drive will start in 2001.

Afforestation and soil preservation works in Li-Jiang River: The assignment of afforestation was achieved. Improvement of residential districts: Start in 2002 Strengthening of an agency: Being prepared

(FY 2003 Overseas Study)

The accumulated amount of direct investment for the constructions mentioned above amounted to RMB 115 million, which accounts for 127% of the total completed contract of RMB 90,220 thousand. The construction with the amount of RMB 76,000 thousand was completed in 2001. Thus, the construction project has been progressing at a fast pace.

(FY 2007 Domestic and Overseas Survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Jul.1998

EAS CHN/	S 202/97	Revised Mar.2008
1. COUNTRY	China	
2. NAME OF STUDY	Integrated Mana	agement Master Plan for the Water Environment of Min River in Chengdu District
3. SECTOR	Administration	/ Environmental Problems 4. TYPE OF STUDY M/P+F/S
COUNTERPART ACTIME OF DEVELOR		Chengdu District Environmental Protection Department
PRESENT COUNTE	RPART AGENCY	
6. OBJECTIVES OF T	dry season and to an integrated ma	f Minjiang River in Chengdu City in Sichuan Province is deteriorating recently: insufficient water in the the flow of industrial and domestic effluent. In order to improve these conditions, make a master plan for an agement plan including institutional aspects, and conduct a feasibility study on priority projects.
7. CONSULTANT(S)	Nippon Koei Co Kyowa Enginee	o., Ltd. ring Consultants Co., Ltd.
8. STUDY PERIOD	Jan.1996 ~ ~ Chengdu Distric	Mar.1997 14month(s) et, Sichuan Province (9,000 km2)
9. SITE OR AREA	Onengau Distric	N, Stellauli I lovillee (2,000 kille)
<ul><li>(9 factories).</li><li>3. Water Environment</li></ul>	Freatment Plant 30 thousand m3/day, Treatment Facilities water treatment facil Management Center	Land area: 30.1 ha.  ities for factories for paper/pulp, chemical, medicine, chemical textile, machinery and electronic products invironment experiment facility, Water environment management facility.

EAS CHN/S 202/97 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY1998 Domestic survey)

For Ukupe Sewage Treatment Project and Industrial Waste Water Treatment Project, application for the Japanese yen loan was submitted to the National Planning Committee by the Chendu City Construction Committee through the Chendu City Planning Committee. For Water Environmental Management Center Project, methods for implementing the program is examined by the Environmental Protection Bureau of Chendu City.

(FY1999 Overseas survey)(FY2001 Overseas survey)(FY2002 Overseas survey)(FY2003 Overseas survey)

Urban wastewater treatment plant and waste treatment plant in Sichuan Province

Implementing project: Ukupe Sewage Treatment Project

Funding

Funding Party: World Bank (L/A concluded December, 1999, The funding is included in Urban Construction and Environment Improvement Project concluded with Sichuan Province and the World Bank), Own fund

Amount: 50 million USD

Progress:

(FY1999 Overseas survey) Construction will start in the middle of 2000

(FY2001 Overseas survey) Application for the construction site submitted to the provincial Land Information Center is being examined. The Basic Design was completed. The construction of main sewage pipeline (within 9 km from the factory) and basic infrastructure will be started after the construction site is approved.

(FY2002 Overseas survey) Construction is under implementation.

(FY2003 Overseas survey)

The construction of the sewage treatment facility with the daily treatment capacity of 350 thousand tons will be implemented from 2003 and completed at the end of FY 2005 with the estimated investment of RMB 819 million.

(FY2001 Overseas survey)(FY2003 Overseas survey)

Implemented project: Industrial Wastewater Treatment Project

Funding

Finding Party: Own fund (Water Environment Management project is being implemented with the national fund. Application for World Bank loan for the implementation of the water resource environmental protection projects has been submitted. There was no request for yen loan.)

Progress:

(FY2003 Overseas survey) Regarding the sewage treatment project by nine companies, with the introduction of strict regulation against paper/pulp manufacturing industries and pharmaceutical industry, the city has shut down and relocated several companies so far and established sewage treatment for chemical and electro-mechanical companies.

(FY2003 Oversea survey)

The Water Environment Management Center is not in progress at present because of the lack of further review of the "Integrated Water Environment Improvement Management Project in Minjiang and Chengdu District" after the aforementioned project was completed in March 1997.

Implemented project: Water Environment Management Development

Implementing body: Sichuan city

Contents: 1) As a part of the Integrated Improvement Construction in Chengdu City and Shahe, the integrated improvement of ecology was implemented for water channels in the whole basins of Shahe with the extension of over 22.2km and the investment of a little more than 20 billion RMB. 2) The integrated improvement of water environment was implemented in urban areas with the investment of approximately 60 billion RMB. Pipelines in urban areas were divided into those for rainwater and for sewage. In addition, three sewage treatment plants with the capacity of 100 thousand tons are expected to be constructed.

(FY2007 Domestic and Overseas survey)

No information to be specifically mentioned.

(D/D)

		$(\mathbf{D}/\mathbf{D})$	Compiled	Jul.1998
E			Revised	Mar.2008
1.	COUNTRY	China		
2.	NAME OF STUDY	Detailed Design Study on Shanghai Pu-dong International Airport		
3.	SECTOR	Transportation / Air Transportation & Airport 4. TYPE OF STUDY D/D		
5.		Shanghai Science and Technology Commission (SSTC)		
	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	Based on a request of Shanghai Municipal People's Government in People's Republic of China, conduc "Study on a Basic Plan for Shanghai Pudong International Airport (F/S)" which finished on June 1995.		wing the
7.	CONSULTANT(S)	Nippon Koei Co., Ltd. Nikken Sekkei Ltd.		
8.	STUDY PERIOD	May.1996 ~ Nov.1997 18month(s) ~		
9.	SITE OR AREA	Pudong New Area, Shanghai City		
	MAJOR PROPOSED PR			
		public works in flight area		
	nd development, Drainag Facility for aeronautical g	ge, Pavement, Incidental facility		
	Facility for supplying oil			
	Facility for fore extinguis			
	oject period planned]	ion to open an airport in October 1, 1999.		
- y	, out it is a procondit.			

EAS CHN/S 401/97 D/D

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

(FY 1998 Domestic Survey)(FY 1999 Domestic Survey)(FY 2001 Domestic Survey)

Implemented project: Shanghai Pudong International Airport Construction Project Plan (phase I)

Funding

Funding party: Yen loan (L/A concluded: 12th of Sep. 1997)

Amount: JPY 40 billion

Content of a project: Construction of a runway, facilities in custom terminal building, facilities for oil supply, water supply/drainage, and sewage disposal.

Benefit:

(FY 2001 Domestic Survey)

With the opening of a new airport, an old airport (Hongqiao) was integrated, and a new airport company started management. Thus, they took a policy to shift the organizational system of the old airport to that of the new airport gradually when the new airport opened. And the number of flights which was small before increased gradually, and the new airport functions as an international gateway airport in Shanghai now.

Progress:

(FY 1999 Domestic Survey) Oct of 1999, the construction was completed. 1st of Oct, 1999, the airport was opened.

(FY 2001 Domestic and Overseas Survey)(FY 2002 Overseas Survey)(FY 2003 Overseas Survey)

Implemented project: Shanghai Pudong International Airport Construction Project Plan (phase II)

Funding:

Funding party: Fund of the government, Fund of firms, and Bank loan (They plan 1/3 for each, but they have not procured them completely at the present time.)

Amount: CHY 2 billion

Implemented period: January 2003-End of 20044

Contents: Construction of the 2nd runway and related facilities

Progress

(FY 2002 Overseas Survey) Preparation for comprehensive regulations and works for the early part of the 2nd construction has been implemented. They decide funding plan in the future.

(FY 2003 Domestic Survey) The National Development and Reform Commission (NDRC) held a pre-examining conference for a F/S report related to the 2nd construction works in Shanghai in the middle of August 2003. They made a plan to complete construction of the 2nd runway and related facilities by the end of June 2004 and start operational tests in 2005. They also have a plan to conduct international competition for design proposals of a terminal building constructed in Phase II from September 2003 and to invite members of a committee for the evaluation from Japan. They plan to manage finances for the implementation of the project in their country.

(FY 2003 Overseas Survey) We proceeded with works such as planning for the whole airport terminal areas and the acceptance of proposals for international bidding of the construction of the airport terminal building. The progress situation is as follows.

- 1. Construction of related facilities in a flight area: They have started the preparation of works for basic improvement in the 2nd phase construction works in a flight area, and the construction is to start on March 2005.
- 2. Acceptance of proposals for bidding of an airport terminal area plan and airport terminal building 2nd construction: The terminal building of the airport, which is supposed to be constructed by the 2nd construction, will start working from the end of 2008.

An airport terminal building by a 2nd phase construction plan is supposed to start operation in earnest at the end of FY 2008

3.Other facilities: Considering the flight operation work load, related facilities (such as flight area and freight transport areas) will be additionally constructed. Specific scale will be finally determined after the completion of investigation of whole plan.

#### Related project:

(FY 2001 Domestic Survey)

August 2001: Approach radar control system was chosen.

October 2001: An exclusive apron and a terminal building for VIP with 320,000m2 were completed for an APEC conference. CAT II started operation. A terminal building for CAT II will be completed in 3 years.

Plan in 2003: High speed trains connecting the airport and Shanghai City (total length about 30 km) are under construction

(FY 2007 Domestic and Overseas Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET (Other Studies)

		(Other	· Studies)		Compiled	Jul.1998
AS CHN/A 601/	97		·		Revised	Mar.2008
	China					
NAME OF STUDY	The Hydraulic N	Iodel Test for Baishi Dam in	Liaoning Province			
SECTOR	Agriculture	/ Irrigation, Dra	nage & Reclamation	4. TYPE OF STUDY	Other Studies	
II						
PRESENT COUNTERPA	ART AGENCY					
OBJECTIVES OF THE STUDY	hydraulic data, i Integrated Deve Liaoning Provin	mplementing complementary opment Project in the Liaoin ce". 2.Implementing technic	experiments recommender g Sheng" and "The Feasib	ed in the "Liao Ho Delta . bility Study of Baishi Da	Agricultural Resom Construction P	ources Project in
CONSULTANT(S)	Nippon Koei Co	., Ltd.				
STUDY PERIOD	Aug.1996 ~	•				
SITE OR AREA	Baisii Baiii Coi	Struction Site in Endoming 11	Jyniec.			
MAJOR PROPOSED PR	OJECT(S)					
	NAME OF STUDY  SECTOR  COUNTERPART AGENTIME OF DEVELOPME  PRESENT COUNTERPA  OBJECTIVES OF THE STUDY  CONSULTANT(S)  STUDY PERIOD	COUNTRY NAME OF STUDY  SECTOR  Agriculture  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY  1. In order to dete hydraulic data, in Integrated Devel Liaoning Proving from the expering from the expering from the expering the study of the province of the p	COUNTRY COUNTRY COUNTRY COUNTRY NAME OF STUDY  SECTOR Agriculture Agriculture COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  1. In order to determine the most appropriate of hydraulic data, implementing complementary Integrated Development Project in the Liaoning Province". 2. Implementing technic from the experiments.  CONSULTANT(S)  Nippon Koei Co., Ltd.  Nippon Koei Co., Ltd.  STUDY PERIOD  Aug. 1996 ~ Sep. 1997 13n ~  Baishi Dam Construction Site in Liaoning Processing	COUNTRY  China  The Hydraulic Model Test for Baishi Dam in Liaoning Province  SECTOR  Agriculture  Agriculture  Agriculture  Agriculture  Agriculture  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  In order to determine the most appropriate designing dam prelusions hydraulic data, implementing complementary experiments recommend Integrated Development Project in the Liaoning Sheng" and "The Feasil Liaoning Province". 2.Implementing technical transfer and training conform the experiments.  CONSULTANT(S)  Nippon Koei Co., Ltd.  Nippon Koei Co., Ltd.  STUDY PERIOD  Aug. 1996  Sep. 1997  13month(s)  Baishi Dam Construction Site in Liaoning Province.	COUNTRY NAME OF STUDY  The Hydraulic Model Test for Baishi Dam in Liaoning Province  SECTOR  Agriculture  / Irrigation, Drainage & Reclamation  Liaoning Provincial Department of Water Resources  COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY  PRESENT COUNTERPART AGENCY    I.In order to determine the most appropriate designing dam prelusions and the reservoir operatin hydraulic data, implementing complementary experiments recommended in the "Liao Ho Delta Integrated Development Project in the Liaoning Sheng" and "The Feasibility Study of Baishi Da Liaoning Province". 2.Implementing technical transfer and training counterpart engineers about from the experiments.  CONSULTANT(S)  Nippon Koei Co., Ltd.  CONSULTANT(S)  Aug. 1996 ~ Sep. 1997 13month(s)  Baishi Dam Construction Site in Liaoning Province.	COUNTERPART AGENCY  PRESENT COUNTERPART AGENCY  I.l. In order to determine the most appropriate designing dam prelusions and the reservoir operating system including hydraulic data, implementing complementary experiments recommended in the "Liao Ho Delta Agricultural Resultures Tuby"  PRESENT COUNTERPART AGENCY    Agricultural Agency   I.l. In order to determine the most appropriate designing dam prelusions and the reservoir operating system including hydraulic data, implementing complementary experiments recommended in the "Liao Ho Delta Agricultural Resultural Res

EAS CHN/A 601/97 Other Studies

PRESENT STATUS
Delayed
Discontinued

#### **Description:**

(FY 1998 Domestic Survey) (FY 1999 Oversea Survey) (FY 2000 Domestic Survey) (FY 2001 Domestic Survey) (FY 2003 Oversea Survey)

Implemented project: Baishi Dam Construction Project in Liaoning Province

Funding:

Funding amount: 8 billion JPY.

Funding party: Yen Loan(December 24, 1996 L/A), Liaoning Province- 565 million CNY, Development Bank- 233 million CNY

Construction:

Embankment (514m), Capacity (16.45 billion m3), Freeing port mouth (W:12m x 11 places), Bottom (W:4m x L:5.5m x 12 places), 3 Power generators Benefits:

(FY 2001 Domestic Survey)

Agricultural water: annual production of irrigated rice increased to about 120,000 tons at the rice paddy of 18,100 ha

Reed: annual production increase to about 220,000 tons at the field of 16,700ha

Water supply: the amount of newly developed water is 0.26 billion tons annually.

Flood control: the safety degree of flood control was developed from 1/20 years to 1/50 years of the probability at Jin Xian.

Power generation: the annual electric energy production is 31 million kWh.

Fisheries: Fisheries benefits from the cultivation of freshwater fish at the Baishi reservoir and river crab at the lower basin of Liaoning river.

(FY 2003 Overseas Survey)

Flood prevention years were increased from 20 years to 50 years. Water supply to Fuxin City and Jinzhou City, irrigation and supply of industrial water to urban areas at the downstream of Dalinghe.

The flood prevention criteria intended for 52,693 ha of agricultural land in urban areas and rural areas was increased. The project supplied irrigation water to 13,340 ha of paddy fields and 15,341 ha of reed planted fields, and played a role in supplying irrigation water and industrial water to Panjin and Jinzhou, power generation and fish farming.

Progress:

(FY 1999 Overseas Survey) 95.5% (1,498,500 m3) of the whole construction, concrete filling of 5,950,000, and water-proofing of tents in 24,900m, and installment of gates was completed. Installation of power generators are in progress.

Out of 17,933 residents in the dam area, 7,873 residents of 2,342 households have moved out. Water and electricity is available in some areas. Improvement of broadcasting, communication system, and roads are on-going as a part of resident relocation project. Treatment of extra concrete of dam, installation of 12 freeing ports and switch gear, establishment of electric power plant, relocation of 10,110 remaining residents and its relating projects will be all completed by the end of 2000.

Jun 1996: Commenced

Oct 1997: Dam completed

Sep 25, 1999: Waters was filled in Lower weir

Dec 2000: Completed

(FY 2000 Domestic Survey)

Oct 2000: Ceremony for the completion

Nov 2000: Completion

(FY 2002 Overseas Survey) The environment and socio-economic study is to be implemented between June-December 2003. The study will be financed by the assistance from Japan (equivalent to 13 billion JPY (grant aid JPY 251.85 million and yen loan JPY 13.05 billion)) and own fund (RMB 870 million) In terms of technical assistance, trainings in Japan (10 trainers each year), and dispatching experts (50 persons in total) will be requested. By maintaining facilities, the expiration date for the use of Baishi Dam can be extended to 10 years, which would stimulate local production activities and increase current profit up to 72.715 billion CNY.

(FY 2002 Domestic Survey)

Technical Cooperation:

acceptance of a trainees: 1998-2001 32 persons

(FY 2007 Domestic and Oversea Survey)

No information to be specifically mentioned.

### STUDY SUMMARY SHEET (M/P)

Compiled Dec.1999 **EAS** CHN/S 101/98 Revised Mar.2008

	D CIII (10 101)	•					
1.		China					
2.	NAME OF STUDY	Eutrophication (	Control of Tai Lake				
	SECTOR	Administration		nmental Problems	4.	TYPE OF STUDY	M/P
5.	COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY		Taihu Basin Manage	ment Agency, Ministry	of Water Reso	ources	
	PRESENT COUNTERPA	RT AGENCY					
6.	OBJECTIVES OF THE STUDY			water environment of T gh the conduct of the St		km2), targeting the	years of 2000, 2010, and
7.		KOKUSAI KOC CTI Engineering					
8.	STUDY PERIOD	Jan.1996 ~	Jun.1998	29month(s)			
	SITE OR AREA		n2) that is a potential s	source of pollutant load	flowing into T	ai Lake.	
10.	MAJOR PROPOSED PRO	OJECT(S)	1				

- 1.Installation of secondary sewage treatment facility for domestic wastewater treatment.
- 2.Effluent load reduction and installation of highly advanced sewage treatment facility for industrial wastewater treatment.
- 3. Construction of a water environment monitoring and observation facility.

During the Study, the economic growth rate in the area was over 15%. Assuming that the pollutant generation load is in proportion to the GDP, the inflow load in the Tai Lake was estimated to have doubled in a five-year period, and quadrupled in a ten-year period. Consequently, maintaining the lake water quality at a certain level required tremendous capital. About twice the normal cost for treatment was required as the measures carried out not only targeted organic load reduction, but also the reduction of properties such as nitrogen and phosphorous that impact eutrophication.

EAS CHN/S 101/98 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 1999 Domestic Survey)

The F/S was carried out for the establishment of a water environment observation and monitoring system. In this regard, the opinions of the study team and the counterpart agency were in agreement. However, internal conditions (power struggle between the Ministry of Water Resources and the Environmental Protection Bureau) impeded the realization of the study.

The Ministry of Water Resouces and the Environmental Protection Bureau simultaneously monitor conditions in the Tai Lake, with the latter being financially well off and active in the monitoring work.

Although the Ministry of Water Resources tries to compromise to establish an independent network, nothing materialized.

Thereafter, the mission from Japan proposed the establishment of a monitoring system for water quality and air pollution in principal districts under the Japanese grant aid program for environmental projects. The proposal also included Tai Lake. The agency in the recipient country in charge of the project was the Environmental Protection Bureau.

#### (FY 2001 Domestic Survey)

The implementation agency for the proposed projects of '1.Installation of secondary sewage treatment facility for domestic wastewater treatment' and '2.Effluent load reduction and installation of highly advanced sewage treatment facility for industrial wastewater treatment' is each local government or company and for the project of '3.Construction of a water environment monitoring and observation facility' is the Environment Conservation Agency. The progress situations are unknown.

#### (FY 2003 Overseas Survey)

The Water Use Department, which is the C/P organization of these studies, remains to be the main department for water administration and has jurisdiction over all activities relating to water.

Since China is currently in the process of reforming water resources management system, the urban drainage management in the basin of Lake Taihu is also under the self-responsibility of the Shanghai City Water Resources Bureau (viz. Water Use Department).

The most important benefit is that, with the hydrological ordinance promulgated in China last year, the monitoring data of the Water Use Department (including the data of river-head area for water service) was published on the Internet and enabled the general public to search and browse it.

The Water Use Department is also expected to gradually develop the construction of the automatic water quality monitoring system.

1. Construction of secondary sewage treatment facility for domestic wastewater treatment.

(FY 2001 Overseas Survey)

Finance: National budget.

Construction:

Construction of 29 wastewater facilities were partially or completely finished. 25 are on-going. The total capacity will reach 2,794,000 ton/day 81 more facilities will be constructed in the period of the tenth five-year plan and the capacity will reach 3,913,000 ton/day.

2. Effluent load reduction and instalation fo highly advanced sewage treatment facility for industrial wastewater treatment (FY 2001 Overseas Survey)

Many industrial firms reached the effluent standards. Clean production is promoted through adjustment of industrial structure and the effluent is being minimized. Also, the elimination process mannual of phosphorous and nitrogen organic matter was tightly restricted for Tai Lake is polluted by organic matter. Fund for construction was procured from local budget.

3. Construction of a water environment monitoring and observation facility

(FY 2001 Overseas Survey)

The Ministry of Water Resources is responsible for construction and Taihu Basin Management Agency is in charge of the implementation of construction. All the data concerning operation after construction will be disclosed to public agencies such as Environmental Protection Bureau to share the information and to provide better public services.

The project is under preparation and an application to construcit a monitoring and observation facility by Japan's grant aid will be submitted to JICA.

(FY 2003 Overseas Survey)

Name of the implemented project: Automatic Monitoring System of Water Quality in the Basin of Lake Taihu

Fund raising: currently raised domestically with an eye on procurement from overseas is intended.

Amount: 110 million yuans.

Description: the systems will be constructed at 22 places at the early stage in main water channels that introduce water from Chang Jiangto Lake Taihu, main water channels flowing into Lake Taihu, and water channels in the region of Lake Taihu and at borders of provinces.

# STUDY SUMMARY SHEET (M/P)

ΕA	S CHN/S 112	(M/P) 98	Compiled Revised	Dec.1999 Mar.2008
	COUNTRY	China		
2.	NAME OF STUDY	Jilin Province Integrated Regional Development Plan in China		
	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY M/P		
5.	COUNTERPART AGEN TIME OF DEVELOPMI			
	PRESENT COUNTERP	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	To propose an integrated regional development master plan for a designated area spanning from Cha	ngchun to H	unchun.
7.	CONSULTANT(S)	International Development Center of Japan UNICO International Corporation		
8.	STUDY PERIOD	Sep.1996 ~ May.1998 20month(s)		
9.	SITE OR AREA			
A to		swere identified which addressed principal development issues facing the area like farmers' organizations development, forestry conservation, industrial development, highway construction, and tourism development issues facing the area like farmers' organizations development, highway construction, and tourism development issues facing the area like farmers' organizations development.		Κ

EAS CHN/S 112/98 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

#### **Description:**

(FY 1999 Domestic Survey)

An official delegation led by Mr. Wang Guo Fa, Vice Governor of Jilin Province, visited Japan for two weeks in June 1998 to hold a series of investment promotion seminars in Tokyo, Niigata, Joetsu, Kanazawa, and Nagoya. Accordingly, progress of the project is expected.

(FY 2001 Overseas Survey)

Jilin Province submitted 30 projects for yen loan including the secors of industry, water supply, urban wastewater treatment, urban waste management, water and soil conservation, environmental improvement, tourism and education through the State Planning Commission. The result of the application has not been informed yet.

(FY 2002 Overseas Survey)

Building facilities for saving water at irrigation districts

Next phase of Study - 2001

Procurement: 1,000 yuan (cost is shared evenly)Period of work: 20th Apr., - 15th Nov., 2002

Outcomes: 4 targeted areas cover existing paddy (2,267ha), newly cultivated paddy (867 ha) and improved irrigated paddy (1,400 ha).

(FY 2003 Overseas Survey)

Projects in progress:

- 1) Project for Construction of National Large-size High Quality Products and Food Base (Changchun Area)
- 2) Beef Cattle Development Project in Changchun

Study projects expected to be implemented in the next stage:

1) Changchun - Harbin Area Economic Development Study

Study implementation period: January - June 2004

Fund raising plan: 3 million US dollars worth of grant aid is expected to be requested

Request for technical cooperation of Japan:

Acceptance of Technical Training Participants: 5 -10 trainees. The training on the sustainable development of regional economy will be implemented in 2004. Dispatch of Experts: 3 - 5 persons. Cooperation to study and planning is desired for a period in 2004.

(M/P)

Compiled Dec.1999

	AS CHN/A 116/			Revised Mar.200
1.		China		
2.	NAME OF STUDY	Ansai Mountain	Area Integrated Agricultural Development Project in	Shanxi
3.	SECTOR	Agriculture	/ (Agriculture in) General	4. TYPE OF STUDY M/P
5.	COUNTERPART AGEN TIME OF DEVELOPME		(provincial committee of science and technology)	
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY		M/P on integrated agricultural development to promot d rural living improvement for 5 villages/towns (xians).	
7.	CONSULTANT(S)	Japan Agricultu	ral Land Development Agency	
8.	STUDY PERIOD	Nov.1997 ~	Mar.1999 16month(s)	
10. <n. 1.="" 1<br="">2. 1. 3. 0 4. 1 5. \$ 6. 1 7. 1</n.>	MAJOR PROPOSED PRO/P> Land utilization. Agricultural land conserve Cultivation. Livestock. Support for farmers. Processing and marketing Agricultural/rural infrastrafforestation.	ation.	roducts.	
<n< th=""><td>lodel area project&gt;</td><td>to three accordin</td><td>g to the social, geographical, and topographical condi</td><td>tions.</td></n<>	lodel area project>	to three accordin	g to the social, geographical, and topographical condi	tions.

EAS CHN/A 116/98 M/P

	In Progress or In Use
PRESENT STATUS	Delayed
	Discontinued

#### **Description:**

(FY 1999 Domestic Survey)

Shanxi provincial government is examining how to deal with M/P proposed projects.

#### (FY 2001 Domestic Survey)

The Ansai authority submitted the report to the Shanxi provincial government on the matter of all projects in three areas were to be requested as the grant aid projects. However, this matter is not adopted because it will cost 1.76 billion Yen in case all projects are implemented together, and there were no rooms for any projects in FY2001.

The grant aid projects as the Center for Forestry and Rice Paddy on a slope, the Village Development Promotion in the case of the Project Type Technical Cooperation Scheme and the Rehabilitation of the Riverside Irrigation Facilities are expected. However, the coordination in the Chinese government is making slow progress.

#### (FY 2001 Overseas Survey)

After the study, the two Shaxi provincial agencies, Sience and Technology Agency and Foreign Economic Trade Agency, requested the Dept. of Foreign Economic Trade for the implementation of the proposed project. Regarding the request, they received an answer that the amount of Yen loan was limited and it was not available for small-scale projects. However, the provincial government is continuously making efforts to implement the project by yen loan.

#### (FY 2003 Overseas Survey)

At the same time with the completion of the "Ansai Mountain Area Integrated Agricultural Development Project in Shanxi" in 1999, the Shanxi Provincial Bureau of Foreign Trade and Economic Cooperation submitted the implementation plan to the Ministry of Foreign Trade and Economic Cooperation in the same fiscal year with the request for implementation under the yen loan from Japan. The aforementioned project has been waiting for its realization so far without entering an implementation stage.

(F/S)

Compiled Dec.1999 **EAS** CHN/S 302/98 Revised Mar.2008

1.	COUNTRY	China			
2.	NAME OF STUDY	Groundwater Development in Tuoketuo County, Inner Mongolia			
3.	SECTOR	Social Infrastructure / Water Resources Development 4. TYPE OF STUDY F/S			
5.	COUNTERPART AGENORIME OF DEVELOPME				
	PRESENT COUNTERPA	RT AGENCY			
6.	OBJECTIVES OF THE STUDY	1)To conduct a F/S for groundwater development at 3 village communities(Yong Sheng yu xiang, Wu shi jia xiang, Hei cheng xiang) in Tuoketuo Country, Inner Mongolia; 2)To formulate stable and safe water supply system plan utilizing groundwater; 3)Technical transfer through the Study			
7.	CONSULTANT(S)	Sumiko Consultants Co., Ltd. Yachiyo Engineering Co., Ltd.			
8.	STUDY PERIOD	Mar.1997 ~ Mar.1999 24month(s) ~			
	SITE OR AREA	62 villages within the 3 village communities (Yong sheng yu xiang, Wu shi jia xiang, Hei cheng xiang) in Tuoketuo Country, Inner Mongolia			
ın	MA IOR PROPOSED PR	OIECT/S)			

Difference in groundwater quality has been recognized between the northern and southern parts of the study area, which are separated by a major fault running in E-W direction. The groundwater in the northern part is contaminated with excessive arsenic and/or fluorine, at locations in the proximity of the graven structure, which is covered by thick Quaternary beds. Therefore, an appropriate supply system of uncontaminated water should be established taking account of the geological condition.

- Case 1: Where water sources with satisfactory conditions both in quality & quantity could be assured within nearby village.
- Case 2: Where water sources with satisfactory conditions both in quality & quantity could not be assured within nearby village.

In case 1, it is necessary to construct water source well and pipe lines for local water supply system in the relevant village.

In case 2, it is necessary to construct an aqueduct from a water source to the relevant village and to construct a pipeline for a local water system.

The construction term consists of 2 stages: 5 years for the improvement stage and 5 years for construction of new water supply system in near future. The overall project term is 30 years including the depreciation period of 20 years after the construction term.

EAS CHN/S 302/98 F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### **Description:**

(FY 1999 Domestic Survey)

Finance:

The beneficiaries are able to share in the expenses for operating & managing water supply system, however they have difficulty to share the cost of facilities construction. Therefore, the inhabitants are looking forward to the subsidy from local government but the plan to implement construction is not certain yet. The procedures for JICA grant aid has already been completed in Ministry of Water Resources, but its aid has not been procured yet until now.

#### (FY 1999 Overseas Survey)

The water supply facility model operated without any problem. Residents desire JICA to formulate a further water supply plan. If the project will be implemented, large social and economic effects are expected. At present, local government is trying to collect funds from various routes in order to implement the proposed project.

#### (FY 2001 Overseas Survey)

The project has not been realized yet.

#### (FY 2003 Overseas Survey)

In China, with implementation of the "National Drinking Water Scarcity Solution Project" with the objective of solving drinking water scarcity for residents and cattle in water-starved areas, the water supply project was implemented in villages that became objects of the water supply project. In TOKUTO province, the Water Supply Project was incorporated into the provincial Drinking Water Scarcity Solution Plan, and consequently the water supply project was implemented in villages that became objects of the project.

(M/P)

Compiled

Jun.2000

**EAS** CHN/S 101/99 Revised Mar.2008 1. COUNTRY Environmental Management Plan for the Environmental Model Zone in Dailian Municipality 2. NAME OF STUDY / Environmental Problems TYPE OF STUDY M/P 3. SECTOR Administration 5. Environmental Protection Bureau of Dailian Municipality, Liaoning Province COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY To make a suggestion regarding practical and effective, and technical(hard), political(soft) environmental protection measures, to achieve both of social development and environmental protection in Environmental Model Zone in Dalian Municipality. OBJECTIVES OF THE 6. STUDY **UNICO International Corporation** 7. CONSULTANT(S) Japan Weather Association Nippon Koei Co., Ltd. 40month(s) Nov.1996 Mar.2000 8. STUDY PERIOD 4 central districts in Dalian City(Zhonhshan, Xigang, Shahekou and Ganjingizi) 9. SITE OR AREA

#### 10. MAJOR PROPOSED PROJECT(S)

1) Cleaner production of Dalian Steel Co.

To prevent dust emission by means of replacement small scale aged electric furnaces to new large-scale furnace equipped with dust collector in closed premises.

2) Cleaner production of Dalian Cement Group Corp

To prevent dust emission by means of replacement of small scale aged coal mills and cement mills to new large scale ones equipped dust emission prevention devices, and save energy by installation of heat generator.

3) Cleaner production of Dalian Dyestuff Plant

To reduce COD discharge and to save energy by moving of the plant in the city to suburb, and modernization of sodium hydroxide, waste sulfuric acid concentration and di-nitrobenzen process.

4) Cleaner production of Dalian Pharmaceutical Plant

To reduce COD,SS and bad smell by plant moving to suburb of city and installation of circuit fluidized bed combustion boiler, de-sulphurization process, de-nitration process, dust collector, active carbon treatment process for emission gas, and water treatment process.

5) Cleaner production of 2nd phase expansion work of Chunhai Thermo-electrification Plant

To replace 27 small-scale boilers to 2 new large-scale boilers and to improve capacity of the boiler installed in 1st phase construction work.

6) Cleaner production of Dalian Gas Co.

To move the plant from city centers to suburb and change htefuel from coal to LPG.

7) Modernization of environmental management

To enhance the environmental management by improvement of existing monitoring system bad environmental education facilities, and training of human resources.

EAS CHN/S 101/99 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

#### **Description:**

Status of Application

Environmental management plan prepared by the study have been applied to various issues in Dalian city, such as; Relocating aged factories from urban area, Expansion of environment monitoring system, Promotion of environmental education.

#### (FY 2000 Domestic Survey)

Dalian has historically developed as economic and trading center in north east of China and industrialized city. Recently, environmental problem is getting serious in the city due to rapid urbanization. So, the Chinese Government decided four central districts in Dalian City as Environmental Model Zone, and requested to the Japanese Government to conduct a study for formulation of environmental management plan for it. The study was carried out from November 1996 to March 2000 and during the period the study team visited the city seven times for field survey. The study was cooperated with Kitakyushu city, which is a friendship city of Dalian city for long time, and its know-how was efficiently put in the recommendation especially in the field of political management system.

The study covers wide area and details are as follows;

1) Monitoring and analysis of meteorology and air quality, water, deposit and living things in Dalian Bay, and noise at main traffic roads. 2) Sampling and analysis of emission gas and discharged water from plants(point sources of pollution) and sewage water from residential houses(apartment). 3) Measuring and analysis of emission gas from vehicles(non-point source). 4) Identification of present environmental situation, analysis of environmental pollution, and formulation of environmental pollution estimation model(satellite image analysis and simulation model). 5) Identification of presents socio-economic development and study on future industrial framework and energy changeover plan. 6) Assuming of socio-economic development framework and estimation of future environmental condition. 7) Setting of future(at 2010) environmental target figures and identification of the theme to be investigated. 8) Survey on present situation of collection and middle and final treatment of the solid waste from plants, hospitals and residential houses, study on the theme and countermeasures, and making a recommendation for improvement plan. 9) Survey on present situation of organization, institution and environmental education, and making recommendation for the mprovement plan. 10) Study on the items to be implemented in a political field and summarize in the modernization plan for environmental management. 11) Formulation of action plan for important project in the items of countermeasures recommended. 12) Pre-Feasibility study and EIA for the priority projects selected from the important projects. 13) Formulation of the environmental basic plan including whole study results. Formulation of "Dalian Basic Plan for Environmental Pollution Protection", which is useful for Dalian Environmental Protection Bureau to prepare the Basic Plan by themselves. It was used in 2nd seminar as a textbook.

#### (FY 2001 Domestic Survey)

Finance: 28 Mar.2000 L/A 5,315 mil. Yen Dalian Environment Model City Project Part I, 30 Mar.2001 L/A 3,202 mil. Yen Dalian Environment Model City Project Part II

1. Improvement of the plant for which F/S was implenented.

(FY 2001 Overseas Survey)

- 1) Dalian Pharmaceutical Plant: Improvement and relocation were completed. Procured 136 million yuen by land transfer and joined the domestic stock market. 2) Dalian Dye Plant: Improvement and relocation were completed. Dalian Chemical Industry Company payed the relocation expense, 180 million yuen in advance. 3) Chunhai Thermoelectric Plant: Pollution reduction improvement was completed. Fund was procured by themselves. 4) Dalian Steel Plant: Pollution reductin improvement of electric furnace was completed. Fund was procured by themselves.
- 2. Urban wastewater treatment

(FY 2001 Overseas Survey)

- 1) Construction of MA RAN River wastewater treatment plant was completed. Finance: 330 million yuen (including 83 million yuen loan from World Bank)
- 2) Construction of CHUN RYU wastewater treatment plant was completed. Finance: 90.66 million yuen (including 34 million yuen loan from World Bank)
- 3) Construction of HAKKESO wastewater treatment plant was completed. Finance: BOT (procured by themselves)
- (FY 2002 Overseas Survey)

Contamination and maintenance of electric furnace of Dalian Steel Cop: reforming old furnace, abating emission of smoke and grime (the period 20th of March-June of 2004, 12 mil dollars). Dust collector in cement factories: in renovating facilities, clean production will be launched, The 1st phase of Environmental Protection Project for Dalian pharmaceutical factories: The factory is moved and transformed to actualize clean production (Financed 6.37 mil. dollars). Establishment of the Model Center (requested): establishing a model center for environmental education which serves as contact between environmental educational enlightenment and clean production in Northern Region.

3. Air pollution reduction

(FY 2001 Overseas Survey) The result of the joint research between China and Japan, the sulfer dioxide inhibition method, was utilized and the SO2 concentration rate in the air decreased from 60mg/m3 (1997) to 30mg/m3 (present).

Provition of equipments

(FY 2001 Overseas Survey) Through the study, the Japanese side provided equipments of approx. 20 million yuan. Among the equipments, five automatic monitoring stations are working properly. Based on the stations, the Environmental Protection Bureau constructed five more new stations with own procured fund. However, some equipments are not exchangable due to lack of spare parts.

5. Others

(FY 2001 Overseas Survey) Dalian City was highly evaluated in its environmental protection activities and selected as one of the world top 500 cities by the United Nations.

(FY 2004 Overseas Survey)

Chongqing Tianyuan Chemical Industry District Thermal Power Plant Expansion Project (October, 2002 - January 2004)

Reducing discharges of 1,610 ton sulphur dioxides, 5,800 ton fine particles, and 80 ton NOx annually.

Anti Daiko group made Thermo-electrification Furnace Pollution Project (March 2002 - July 2004)

Introduced a 40 ton AOD furnace, square alloy casting dust-proof system. Dust-proof has accomplished 50mg/square metres. Realised reduction of 1,536 tons of dust per year.

(FY 2005 Overseas Survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Jun.2000

E/	AS CHN/S 2	01/99					Revised	Mar.2008
1.	COUNTRY	China						
2.	NAME OF STUDY			or the Environment of Ma	otiao	River Basin (Lake	Hongfeng and La	ke Baihua)
		in Guizhou Province					1	
3.	SECTOR	Administration	/ Environmenta	al Problems	4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME							
	PRESENT COUNTERPA	RT AGENCY						
6.	OBJECTIVES OF THE STUDY	Maotiao River Basin - To formulate a M/	1.	ets to improve the waste vectors to improve the waste vectors of the basin			•	
7.	CONSULTANT(S)	Central Consultant,	Inc.					
8.	STUDY PERIOD	Dec.1997 ~	Jul.1999 19month(s	)				
		Maotiao River Basin	n (3,246km2)					
9.	SITE OR AREA							

#### 10. MAJOR PROPOSED PROJECT(S)

M/P:

FAC

CHN/S 201/00

- (1) Water utilization: Effective uitlization of water resource. Targeted industrial water recicling rate: 75%.
- (2) Targeted water quality standards: Lakes apply the surface water standard category II, Rivers-apply the category III, Total mercury content in irrigation soil apply the Japanese standard (3mg/L), Industrial waste water apply the waste water disposal standard.
- (3) Ecosystem, Landscape, and Hydrophilicity

Ecosystem - Conserve natural environment and biodiversity in the basin while maintain the balance of economical activities.

Landscape/Hydrophilicity - Conserve natural landscape for tourism promotion.

Based on the above, 21 measures were selected as the measures for water quality conservation, mercury contamination prevention, ecosystem conservation, and the related organization/system improvement.

(1) Works for early stages

Sewege disposal system of residencial houses. Rationalization of factory effluent utilization. Waste water disposal system improvement for the targeted four factories for F/S. Prohibition of fish farming in the lakes. Waste water disposal system development in rural areas. Merchury contamination prevention. Ecosystem survey and conservation management planning.

(2) Preparation for implementation

Establishment of Lake Hongfeng and Lake Baihua environmental management committee. Water environmental monitoring. Organization enforcement for the environmental protection. Man-power development. Enforcement of the sewage and waste system.

(3) Future study targets

Rationalization of indurstrial production systems. Reduce mercury contamination in Guizhou. Undergroundwater conservation and development. Review water quality standards.

#### F/S:

Formulate projects for improvement of waste water disposal system of the targeted four plants below.

- (1) Organic Chemistry Plant in Guizhou Acetic acid production process: utilization of mercury-free production system
- (2) Chemical Fertilizer Plant in Guizhou Application of ammonia stripping method for carbonate ammonia waste water treatment.
- (3) Chemical Fertilizer Plant in Hebei Application of closed system for synthesis ammonia plant waste water treatment. Fluorinate process: Recommendation of coprecipitation techniques
- (4) Power Plant in Quingzhen Deacidification system by sulfuric acid for waste water from ash disposal site. PH control after the treatment.

EAS CHN/S 201/99 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY2000 Domestic Survey)

There is no information after the complation of the project.

#### 1. Organic Chemical Plant in Guizhou

(FY 2001 Domestic Survey)

Finance:

Mar.28,2000 L/A 6.266 Billion Yen 'Guiyang environment Model City Project 'Mar.30,2001 L/A 8.169 Billion Yen 'Guiyang environment Model City Project II'

#### 2. Chemical Fertilizer Plant in Guizhou

(FY 2001 Domestic Survey)

It was not approved as the JBIC Project because the loan scale was small.

#### 3. Power Plant in SEITIN

(FY 2001 Domestic Survey)

It was not approved as the JBIC Project because the loan scale was small.

#### 4. Countermeasures Plan for Environment and Water Pollution Maotiao River Basin in Guizhou Province

(FY 2002 Overseas Survey)

The project was integrated into JBIC's Yen Project from 2002-2004 (around 100 mil.dollars). The work is to be started in 2004, and lasted for 3 years.

(FY 2003 Overseas Survey)

Next stage study: China desires implementation of the project in 2004 or 2005 with the study expense funded by JICA in addition to its own fund but It has not made the request yet.

Details of study: Systemicity and feasibility of the water environment improvement method of the Maotiao River Basin in the Guizhou. Dispatch of experts is desired.

#### 5. Other Project

(FY 2001 Domestic Survey)

Sewage disposal plant and rationalization of factory effluent utilization: implementing by the own cost

Ecosystem survey and conservation management planning: unknown

Water environment monitoring: implementing by the own cost

Organizational enforcement of the environment protection direction: personnel cut by the government was made

Enforcement of the Sewage and waste system: not yet implemented

#### Profit effects:

(FY 2002 Overseas Survey)

Through project implementation, Kweichow province will contribute to regional economic development, social progress including quality control of water resources, as well as improvement in life standards including some sense of security, provided safe drinking water.

#### Situation:

(FY 2001 Domestic Survey)

The projects are implemented based on this Study. Three Plants are under reexamination from the viewpoints on rationalization and scale expansion except the Organic Chemical Plant among the Plants on F/S. The measure for mercury pollution is made partially by soil covering. The joint experiment for the soil improvement by the low temperature heat treatment are preparing to be requested as the grant aid by JICA.

#### (FY 2001 Overseas Survey)

Fund was procured from various sources.

High temparature mercury removal method was used for contaminated land, however, it was not successful.

Therefore, the low temperature mercury removal method proposed by the study is being examined.

#### (FY 2004 Overseas Survey)

Status of the measures taken against 4 major pollutant source related to the plan of immediate measures prepared in this study are as follow:

- 1. Organic Chemical Plant in Guizhou: Measures against mercury pollution are taken by using Yen Loan
- 2. Chemical Fertiliser Plant in Guizhou: Construction of new chemical fertiliser production system is in progress using a loan from ADB
- 3. Power Plant in Seiten: Measures against waste water are taken using its own capital.
- 4. Chemical Fertiliser Plant: Measures against water waste pollution are taken, using Gov. allotment and its own capital.

(M/P+F/S)

Compiled Jun.2000

L <i>P</i>	S CHN/A				Revised	Mar.2008
1. 2.	COUNTRY  NAME OF STUDY	China Taihang Shan In	ntegrated Agricultural Development F	Project in Hebei Pro	vince	
	SECTOR	Agriculture	/ (Agriculture in) Genera	ıl <b>4.</b>	. TYPE OF STUDY M/P+F/S	
5.	COUNTERPART AGEN	NCY AT THE	/ (rightenture iii) Genera		THE OF STODY   MIT 11/5	
	PRESENT COUNTERP					
6.	OBJECTIVES OF THE STUDY		Study is to formulate M/P and F/S for agriculture and rural infrastructure in ace.			
7.	CONSULTANT(S)	Nippon Koei Co Hokkaido Engin	o., Ltd. eering Consultants Co., Ltd.			
8.	STUDY PERIOD	Jun.1998 ~	Oct.1999 16month(s)			
10.	SITE OR AREA  MAJOR PROPOSED PI	4 Priority Areas,  ROJECT(S)				
3 P 4 p F/S	Development models for ublic investment project rograms to support imple :	s pre-requisite of tementation of the	the participatory projects	nentation of the par	ticipatory projects	

EAS CHN/A 223/99 M/P+F/S

PRESENT STATUS

Completed or In Progress

Completed

Partially Completed

Partially Completed

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

(FY 2000 Domestic Survey) No information available.

#### 1. Farmers participatory projects

(FY 2001 Overseas Survey)

The following activities are on going.

- 4 science and technology model areas are being selected related to mountain district development.
- Preparing an application for yen loan.

(FY 2002 Overseas Survey)

2 mil. yuan from Ministry of Science and Technology, 3 mil. yuan has been collected so far, combined with 6 mill. yuan of farmers' private funds.

- 2. Public Works
- 1) Dam drinking water project by Japan's aid

(FY 2001 Overseas Survey)

The Ministry of Foreign Trade and Economic Cooperation has submitted an application to JICA and is waiting for approval.

(FY 2002 Overseas Survey)

The next phase of Study: in practiceRequest for Grant Aid, amounting for 5,110 mil. yuan (the cost will be shared evenly) was submitted to the Japanese Govt.

(FY 2003 Overseas Survey)

As of FY2003, the request for a grant aid has been submitted to JICA through the former Ministry of Foreign Trade (also approved by the present Ministry of Commerce)

#### 2) Underground water environmental research

(FY 2001 Overseas Survey)

The Ministry of Science and Technology applied for a joint research with Japan, however, it has not been approved yet. The Chinise side has already spent two years from 2000 to 2001 for the research project with Japanese exparts joined the project. A request for dispatch of Japanese experts was submitted to the ministry in 2002.

(FY 2003 Overseas Survey)

2001 - 2003: Dispatch of experts (3 persons including personnel from Chiba University) was realized and annual studies and research activities were conducted in the mountain area of Taihang Shan.

#### 3) Farmers market project

(FY 2001 Overseas Survey)

The application has been submitted to the Ministry of Science and Technology. Japan's aid is expected and approval is awaited.

#### 3, Farmers support project

(FY 2001 Overseas Survey)

The project has not implemented yet.

(FY 2003 Overseas Survey)

- 1) The request for yen loan was continuously made in 2003.
- 2) Based on the final report of the study, Hebei Mountain Area Economy and Technology Development Office prepared the "Agriculture, Science and Technology Development Plan in Hebei Mountain Area" (2003-2005-2010), which the aforementioned office is expected to implement the plan by bringing concerned experts together from 2004 under the leadership of the Mountain Area Economy and Technology Development Office. The framework is likely to be expanded based on four development zones where the project has been previously implemented into dozen or so plantation areas in Taihang Shan and eight industries in Yanshan. The gross investment amount is 1.91 billion yuans, of which 3 million yuans, expected to be input from the provincial government from 2004, will be used to attract investment from various fields as a lead aiming for joint implementation.

#### (FY 2004 Domestic Survey)

No information to be specifically mentioned.

#### (FY 2004 Overseas Survey)

Hebei province has set forth 4 points in improving the living condition of 30 thousand farmers in 18 villages of the target water irrigation area.

- 1) To implement construction of an asphalt-paved roads to each villages. Construction completed for 12 villages in the end of 2004.
- 2) To construct water container for household. To prepare for a water shortage in dry seasons by containing rainwater. Presently completed for 70 percent of the household.
- 3) To implement actions for reforestation of arable land. To improve the ecosystem.
- 4) To train and assist farmers in popularising "water efficient farming". In addition, to introduce drought resistant species.

Other than these, projects such as development of wasteland within project area, damming of rivers, land generation, and dam construction for village and land protections are in progress. The objectives of the above projects are to improve the environment and to overcome poverty of the farmers.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

**(F/S)** 

Compiled Jun.2000

1	COLINEDA	802/99 Revised Mar.200
	COUNTRY	China Study for Road Network Development Plan in Changsha City
2.	NAME OF STUDY	
3. 5.	COUNTERPART AGENTIME OF DEVELOPME	
	PRESENT COUNTERPA	ART AGENCY
6.	OBJECTIVES OF THE STUDY	1) To formulate the road network plan in Changsha City to solve bottlenecks and traffic congestion and to carry out the feasibility study of priority projects identified in the road network planning.  2) To transfer the technology
7.	CONSULTANT(S)	Fukuyama Consultants Co., Ltd Pacific Consultants International
8.	STUDY PERIOD	Jul.1998 ~ Oct.1999 15month(s)  Changsha City, Funan Province
9.	SITE OR AREA	
1. F 2. F 1) I 2) V	MAJOR PROPOSED PR Road improvement plan in Proposed priority projects East-side section of River West-side section of River Rodo-Bridge and its appro-	n Changsha City by the year 2010 s(F/S) r Side Road(24.90km) er Side Road(20.63km)

EAS CHN/S 302/99 F/S

PRESENT STATUS

Completed

Completed

Partially Completed

Delayed or Suspended

Implementing

Processing

Discontinued or Cancelled

#### **Description:**

Situation:

(FY 2000 Domestic Survey)

The proposed projects in this study, namely construction projects of the East-side Road and West-side Road and Rodo- Bridge, were approved in the Counseling Committee Meeting of Changsha City Government.

The Construction Committee of the Changsha City Government has already asked the Japan Bank for International Cooperation (JBIC) to finance the construction projects of River-side Road based on the decision of Counseling Committee Meeting.

Section between Syoko No.3 Bridge and West Lake Road of the East-side Road has been constructed by their own funds.

(FY 2001 Overseas Survey)

The application for yen loan was submitted in the end of 1999, however, it has not been approved yet.

1. East-side section of Riverside Road.

(FY 2001 Overseas Survey) Finance: Own fund. Construction: Completed.

2. West-side section of Riverside Road.

(FY 2001 Overseas Survey) Finance: Own fund.

Construction: Will be completed in Oct. 2002.

3. Roudou Bridge and its approach road.

(FY 2001 Overseas Survey) Finance: Own fund.

Construction: On-going. The roads were partially completed.

River side road Subsequent studies

2003

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

The project is till 2003 and has already been completed.

**(F/S)** 

			(F/S)	Compiled	Jul.2001
EAS CI	HN/A 3	04/00		Revised	Mar.2008
		CI.			

1.	COUNTRY	China					
2.	NAME OF STUDY	The Study on Y	ellow River Basir	Agriculture and	Fisheries Developme	ent	
3.	SECTOR	Fishery	/ F	ishery		4. TYPE OF STUDY	F/S
5.				nal Level) Yunch		al Level) Shanxi Province Regional Water Resource	cial Water Resources es Department (District
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	Ruicheng distriction the specific sagriculture field	To conduct the feasibility study on the integrated agriculture and fisheries development in the Yuncheng region (Yondji and Ruicheng districts) of Shanxi Province as a model case of 6 provinces located along the Yellow River. The study was made on the specific scopes of the project such as the construction and rehabilitation of aquaculture farms including the annexed griculture field (improvement of alkali-origin soil), establishment of fish hatcheries, feed plants, fish processing factories, isheries technological center, etc.				
7.	CONSULTANT(S)	Overseas Agro- Sanyu Consulta	Fisheries Consultants Inc.	ants Co., Ltd.			
8.	STUDY PERIOD	Mar.1999 ~	Mar.2000	12month(s)			
9.	SITE OR AREA	Yondji district (	3 areas) and Ruic	heng district (5 a	reas), Yuncheng regio	on, Shanxi Province	
10.	MAJOR PROPOSED PR	OJECT(S)					

- Agriculture & Fisheries Technological Development Plan
- 1) Aquaculture Farms
- 2)Village roads
- 3) Electric lining
- 4) Drainage canals
- 2. Agriculture & Fishing Farmers Support Plan
- 1) Freshwater Fish Hatcheries (Yondji and Ruicheng)
- 2) Fish Feed Factories (Yondji and Ruicheng)
- 3) Fisheries Technology Center (Yondji)
- 4) Equipment Center (total 8 sites, each at the projected sub-districts)

EAS CHN/A 304/00 F/S

	Completed or In Progress	Promoting
DDECENTE CEL ENTC	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

#### Description:

#### (FY2001 Domestic Survey)

Based on the results of this study, the government of P.R. China has been trying to coordinate towards the earliest Implementation by loans from Japan Bank for International Cooperation (JBIC), but no progress has been observed as of today.

#### (FY2002 Domestic Survey)

Shanxi Province shows a positive attitude toward implementation of the project. The draft of request for grant aid was allegedly submitted to the Central Govt. of China (Agricultural Dept.). The progress/result of discussion within the govt was not fully known. Though perhaps, there would be a high possibility that the project will be carried forward operation, the policy direction of govt. of China remains ambiguous at the moment. Therefore, even if the request is submitted, it is unclear whether its details are compatible with JBIC's aid policies towards the country (focused on environment protection and poverty alleviation).

#### (FY2002 Overseas Survey)

It would be essential to dispatch Japanese specialist for 2nd phase of Study. Moreover, the Grand Aid is to be proposed for operational cost. The proposal will be prepared in FY2003, and submitted for FY 2004. The Ministry is examining research plan on agriculture/fishery and environmental protection in the Yellow River coastal area.

#### (FY2003 Domestic Survey)

Because realization of financing is likely to be continuously difficult from the progress hitherto, it is considered desirable to revise the requested project as needed and prepare the ground for the project toward systematization by Dispatch of Experts (for a short time of approximately six months) as described in the "Study by Overseas Offices in FY2002".

#### (FY2003 Overseas Survey)

- 1) Culture ponds of 220 hectares as a standard have been already developed and one breeding place for juvenile fish that makes use of the waste heat of power generation was constructed.
- 2) Future development of coastal fishery in the Yellow River will chiefly aim at quality enhancement. In terms of construction, for example, existing culture ponds will be modified to raise the level higher than a standard culture pond and develop it into what will serve as a model, and no new construction is expected.
- 3) The modification of culture ponds need financing from Japan and a grant aid is desired.

#### (FY 2004 Overseas Survey)

No information to be specifically mentioned.

#### (FY 2005 Domestic Survey)

No information to be specifically mentioned.

(M/P)

Compiled Oct.2002

$\mathbf{E}$	AS CHN/S 112/	/01	Revised	Mar.2008
1.	COUNTRY	China		
2.	NAME OF STUDY	The Study on Improvement of Marine Environmental Monitoring System for the Pearl River Estuar	у	
3.	SECTOR	Administration / Environmental Problems 4. TYPE OF STUDY M/F	)	
5.	COUNTERPART AGEN TIME OF DEVELOPME			
	PRESENT COUNTERPA	ART AGENCY		
6.	OBJECTIVES OF THE STUDY	<ol> <li>Collection and analysis of existing information and resources. Quantitative prehension of current pollution in Perl River Etuary through satellite image analysis and 3 times of experimental monitori</li> <li>Formulating water quality simulation model of Perl River Etuary.</li> <li>Proposing and formulating sustainable and feasible monitoring plan. 4. Technical transfer into Ch</li> </ol>	ng.	ambient
7.	CONSULTANT(S)	UNICO International Corporation		
8.	STUDY PERIOD	Mar.2000 ~ Sep.2001 18month(s)		
9.	SITE OR AREA	Perl River Estuary water district(From east which is Hong Kong south west water district, to west wand from north which is Lu Men Kou to south which is Wan Shan Tao	vhich is Mo I	Dao Men,

#### 10. MAJOR PROPOSED PROJECT(S)

Monitoring Programme

TAC

CITALIC 112/01

Proposals made for efficient and economical monitoring for South China Sea Branch(SCSB) are as followed:

- 1. Monitoring Points Five additional points for SCSB. Possibility of disuse of existing 3 points should be considered.
- 2. Analytical Parameters and Methods:
- 1) Water Quality: Water quality analysis includes 35 parameters of the Environmental Standard for Seawater in People s Republic of China. In addition, four parameters on human health and 4 parameters eutrophication are basic parameter. Analysis will follow GB17378.4-1998 The specification for marine monitoring Part 4 Seawater Analysis .
- 2) Bottom Sediment Quality: Parameters will be the 14 parameters used in the mentioned study the "GB17378.4-1998 The specification for marine monitoring Sediment Analysis".
- 3) Aquatic Biota: The aquatic biota of interest are phytoplankton, zooplankton and benthos.
- 3. Monitoring Frequency
- 1) Water Quality: 3 times during the rainy season; the dry season; and a transient season.
- 2) Bottom Sediment Quality: Once in two or few years. However, annual survey would be preferable for bay where sediments are much polluted.
- 3) Aquatic Biota: Three surveys annually would be preferable. However, due to high cost, continuous monitoring may be limited to phytoplankton causing red water.
- 4. Data Management
- 5. Facility Development
- 6. Organizational Development
- 7. Regulatory Development
- 8. Monitoring Scheme
- 9. Cost Estimate

Full implementation of the recommended comprehensive monitoring plan cost: 57million CHY (6.7 million USD)

Funding party: The World Bank, Asian Development Bank (ADB), and Japan Bank of International Cooperation (JBIC)

EAS CHN/S 112/01 M/P

PRESENT STATUS	In Progress or In Use
	Delayed
	Discontinued

#### Description:

#### (FY 2002 Domestic Survey)

SOA recognizes the low probability that JICA cooperates SOA project again although SOA expects assistance to the next marine survey project driven by SOA. Guangxi and Beihai authorities contacted the study team to seek a possibility of marine survey project in Beihai coast. Their reason to request assistance is that Guangxi dose not have financial source to invest in environment due to its low standard of living although survey and measures are urgent needs in the sea with mangrove and coral reef due to its serious pollution.

Participants in the study meeting of "Comprehensive Environmental Plan of Pearl Rive Estuary" showed high interest in activities of environmental conservation in Seto Inland Sea of Japan and the topic of "total amount regulation" introduced by the study team. It is worth considering dispatch of short- or long-term experts who have such organizational and institutional know-how if there is a request because the dispatch would contribute a lot in improving monitoring in Pearl River Estuary.

Chinese engineers will be able to make the best use of the technologies transferred in the study because of their high level skills. However, there is a possibility that China requests short-term expert dispatch in the future on treatment of chemical substance such as dioxin and endocrin or on simulation technology in unique sea like Shenzhen which are not serious issues yet in China.

#### (FY 2002 Overseas Survey)

After the study, Environment Assessment Center for the State Oceanic Administration has carried out "An Assessment on Environmental Quality in Pearl River Estuary" in 2002. This Study set 44 assessment points. The assessment on water quality, low quality and marine life has started in May, August, and October respectively. The assessment will be continued in 2003.

#### (FY 2004 Domestic Survey)

Neither a concrete proposal equivalent to the subsequent study, nor related plans has been prepared. This study is to prepare a monitoring plan to be conducted continuously taking into account the local environment status, which does not include a proposal for subsequent studies including improvement of facilities using a Yen loan. Although system development to utilize monitoring results of the target area was proposed in this study, which requires sufficient amount of fund, this project has completed with a confirmation that the SOA, the counterpart, and other Guangdong province government agencies will collaborate to proceeding the issue. Although use of Yen loan has been considered other than a Chinese budget, China is continuing its own monitoring, which there are no request made for a Yen loan.

(FY 2004 Overseas Survey)
No information to be specifically mentioned.

(FY 2005 Domestic Survey)
No information to be specifically mentioned.

(FY 2007 Domestic and Overseas Survey) No information to be specifically mentioned.

(M/P)

Compiled Oct.2002

$\mathbf{E}$	AS CHN/S 113/		ar.2008				
1.	COUNTRY	China					
2.	NAME OF STUDY	The Study for Improving the Housing Finance Reform					
3.	SECTOR	Development Plan / (Development Plan in) General 4. TYPE OF STUDY M/P					
5.	COUNTERPART AGEN TIME OF DEVELOPME						
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	In order to contribute longitudinal reform of housing financial system in China, the study considers about an establish of state-wide general housing financial system following cities typification based on progress level of housing institute reform, and actual states/issues analysis of housing finance and housing policies with typificated model regions.					
7.	CONSULTANT(S)	Nomura Research Institute					
8.	STUDY PERIOD	Mar.2000 ~ Mar.2002 24month(s)					
	SITE OR AREA	N/A					
Sho 1.I	_	ng Provident Fund Management Centers.					
3.S 4.F	2.Development and reinforcement of training programs. 3.Standardization of Housing Provident Fund Management Center's administration procedures and management systems. 4.Promotion of Asset Liability Management in Housing Provident Fund Management Centers and reinforcement of the supervising functions by the central government.						
5. l 6.Ii 7.Ii 8.Ii	Middle-term (policy-making) projects 5. Management of funds in larger area / fund coordination with the money market. 6.Independent operation of large Housing Provident Fund Management Centers. 7.Increasing control of housing policy by the central government. 8.Increasing housing policy funds and political loans by the central government. 9.Aligning Housing Provident Fund Management Centers. with local government housing planning.						
10.	Others  0. Establishing Mortgage/Guarantee Systems.  1. Developing Housing information system.						

EAS CHN/S 113/01 M/P

PRESENT STATUS
Delayed
Discontinued

### **Description:**

(FY 2002 Domestic Survey)

Major projects proposed in II can be categorized into three types as follows:

1) 1 to 4: Short-term (urgent) projects:

Concerning the short-term proposals, Ministry of Construction in China announced that the Ministry decided to study the feasibility of system integration and other reforms in June 2002.

2) 5 to 9: Long-term (policy-making) projects

These projects will be considered for implementation once the short-term projects are completed and the new systems are established.

3)10 and 11: others

A Japanese electronics manufacturer has been conducting a feasibility study on the integrated information system of Housing Provident Fund Management Centers in cooperation with JBIC. Also, a Japanese real estate information provider also has shown strong interests in the housing market information system and will start the study in near future in China.

(FY 2002 Overseas Survey)

A subsequent study, 'Study on Financial System Reform for the Western Development In the People's Republic of China', is one of the major development strategies within the national plan of '10th Five Year Plan (2000-2005)'. In that Survey: 1) Necessary fund, period and characteristics of fund flow for each construction projects of Western Development will be categorized/researched. 2) Related investments will be categorized/researched. 3) Feasible financing route and methodology will be researched following categorization and research of each investment 4) Policy recommendation on establishment of financial routes, financing system, and fiscal/tax revenue system for the Western economic development will be prepared based on the understanding of fiscal transfer systems in Japan and other countries. Implementing period is scheduled for FY 2003-2004, and the study will be funded by the People's Bank of China.

#### (FY 2003 Domestic Survey)

JBIC's "housing finance information system improvement project" started in March 2003 as a part of the "main proposed projects" described in the FY2002 Follow-up Studies, built up new systems as well as indicated issues based on understanding of actual operational flow condition of public housing finance system targeting direct ruling city Chongqing, and corresponding methods with those issues. Regarding indications above, a specific estimate of investment scale and evaluation of profitability were implemented. We are expected to accept technical training participants (4 people) are expected to be accepted from Chongqing Municipal People's Government in Japan to provide them with trainings at the Ministry of Land, Infrastructure and Transport and the Government Housing Loan Corporation within this fiscal year. Also, the final report of this study by the study committee was brought into publication in Chinese under responsibility and editing of the CP, The People's Bank of China (with approval of the JICA Peking Office).

(FY 2003 Overseas Survey)

The studies are attracting wide range of attention and highly regarded as useful in the housing loan reform policy of China. Especially, the study outcome in subjected project are supported by the People's Bank of China so much so that the outcomes are likely to be utilized in establishment of a future policy.

Technical cooperation of Japan (Acceptance of Technical Training Participants):

Trainee received: 3

Technical fields: The housing loan system of Japan, etc.

Period: 20 days from March 2002

(FY 2004 Domestic and Overseas Survey)

No information to be specifically mentioned.

(FY 2005 Domestic and Overseas Survey)

No information to be specifically mentioned.

(FY 2006 Domestic Survey)

No information to be specifically mentioned.

(FY 2006 Overseas Survey)

The proposals in the subjected study brought a reform of "Chinese public housing deposit management regulation". Also, the publication of "Chinese housing finance report" brought an impact to the society.

(FY 2007 Domestic Survey)

No information to be specifically mentioned.

(FY 2007 Overseas Survey)

Promoted nation wide housing reserve system reform. The housing mortgage have been improving and supply houses are valued by money.

(NI/P) Compiled Oct.2002
EAS CHN/S 114/01 Revised Mar.2008

	0111101111	, <u> </u>				
1.	COUNTRY	China				
2.	NAME OF STUDY	The Study on Urb	banization of Rural Districts (Haichen City)			
3.	SECTOR	Development Pla	n / Integrated Regional Development Plan 4. TYPE OF STUDY M/P			
5.	COUNTERPART AGENO	CY AT THE	The State Development Planning Commission, the Development Planning Committee of Jiangsu Province			
	PRESENT COUNTERPA	RT AGENCY				
6.	OBJECTIVES OF THE STUDY	Targeting Haichen city in Liaoning province which is stated as a development model of the national architectural department designated "rural urbanization experimental city", the project aim to contribute to realizatin of balanced national land development avoiding population concentration in cities before happens by proposing prioritized projects in the comprehensive development plan following its formulation which targets 2010 with some emphasis on large-scale orientation of industries.				
7.	CONSULTANT(S)	International Dev Pacific Consultar	velopment Center of Japan nts International			
8.	STUDY PERIOD	May.1999 ~	Nov.2001 30month(s)			
	SITE OR AREA  MAJOR PROPOSED PR	·	Liaoning Province, Jiangsu Province, 8 pilot cities for urbanization project			
10.	MAJOR I ROLOSED I K	Cold CI(S)				

Agriculture: Fruit Marketing Strengthening Project in southeastern mountainous areas, Water-saving Agricultural Project

Commerce: Intensification of SMEs, Reestablishment of magnesia material processing industry

Distribution system: Development of the pilot district as a shopping street in Haicheng City, Establishment of wholesale fish market,

Revitalization of clothing market in Seiryu District

Environment and water resource: Haichen River Rehabilitation Project

Transportation: Development of the by-pass function of west side of the loop road in Haichen City, Widening of Kanno-Seiry-Haichen Route of Kaiko Line, Construction of inner loop roads

Urban development: Redevelopment project in the central area, Afforestation project in Haichen River Park, Development of area on river banks,

Transfer and integration of administrative functions, Improvement of housing environment for low income residents

Overall development: Fruit-line project

EAS CHN/S 114/01 M/P

PRESENT STATUS
In Progress or In Use
Delayed
Discontinued

### **Description:**

(FY2002 Domestic Survey)

The guidelines, recommended in the Study have been shared among other concerned parties in Nanjing, Shanghai and Guangzhou. Additionally, the government has submitted request for preparation of development plan in medium-sized city in the Southern area.

(FY 2002 Overseas Survey)

For the traffic sector, each project based on the plans presented below is in progress in Haichen City.

2001: Constructed western outer circular road: 14.2km, Newchwang - West forth: 10.3km

2002: Chi highway: 14.2km, millennium bridge

2003: Eastern circular road 9.078km, Ijyo line: 25.5km

2004: Suejyo line 20km 2005: Yuhoi line15km

Funding: Funded from the government and the municipality.

Status of construction: (1)Newchwang - West forth: completed and started being used in 2001. (2)Millenium bridge and Chi highway: Completed in 2002. (3)Eastern circular road: Completion planned in October 2003. (4)Iyio line: Construction planned. (5)Sueiyo and Yuhoi line will be conducted according to the district road development plan.

(FY 2003 Domestic Survey)

Following the outcome of the project, western administrative personnel training and western national development training (15 trainees) were conducted in March 2003. In addition, Strategic Study for Development of Medium-Sized Cities in the Western Region has been implemented from May 2004.

(FY2003 Overseas Survey)

- 1) Agricultural sector: Project for strengthening the marketing for fruits of the mountainous area in the Southeast region: in urban areas of Haichen City, in addition to establishment of a market especially for fruits (wholesale market), general markets have been established in 64 places. The sale of fruits is intended for domestic markets. Water saving agriculture project: The water-saving irrigation project for agriculture was implemented from June 1998 and completed in October 2001. The area that realized water saving reached 4800 hectares in three years.
- 2) Commercial sector: A concentrated industrial development ward is expected to be constructed with an eye on xiangzhen companies scattered over Haichen and companies in urban areas of Haichen City.
- 3) Haichen River Rehabilitation Project: After commenced on April 1, 2001, the construction has entered the phase where water is dammed in stages. Under the circumstances, one rubber-made dam to dam accumulate surface water, one unit of dam to dam service water and one unit of dam to accumulate the service water have been already completed, which have formed an artificial lake of 660 thousand m2 in water area that can accumulate 920 thousand m2 of water. The implementation will enable use of surface water of the Haichen River, which will allow solution of the water pollution problem.
- 4) Traffic sector: (1)Project for strengthening the function of the Haichen City Loop Road West Side Bypass Passage: the total investment amount is 146 million yuans, of which the bank loan is 18 million yuans and the self-financed funds of Haichen City is 48 million yuans. The project was commenced in March 2000 and completed in October 2001, and the roads have been entirely opened. (2)Road Width Expansion Project for Urban Areas and Haichen along Expressway Lines: construction of the Haichen Expressway Line and expansion of road width in urban area of Haichen were determined. The total investment amount is 30 million yuans, of which allowance from the senior-level administration is 12 million yuans and the self-financed funds of Haichen City is 18 million yuans. The project was commenced in May 2000 and completed in May 2001, and the roads have been entirely opened. (3)Central Circular Road Construction Project: the project was implemented with the city government's investment of 20 million CHY and has already completed. (4)Urban Area Central District Redevelopment Project: the project was implemented with the city government's investment of approximately 10 million CHY has already been completed.
- 5) Improvement of urban areas: (1)Haichen River Park Greening/Riverfronts Improvement Project: the city government will improve the construction of the Haichen River Park by investing 60 million CHY, and will complete it in two construction phases. The first construction phase has been already completed and the second construction phase is expected to be completed in 2003. (2)Low income housing complex function improvement project: the city government will standardize low income housing complexes to standardize the holding area in the new housing based on the area in the existing housing and provide appropriate allowances. The program intends to improve the housing condition of low-income groups.
- 6) Overall: Project for new construction of fruit processing and production lines: Chinese company constructed a production line of fruit juice by inputting 17 million CHY. This line has enabled production of 8 tons of fruit juice per hour and 10 thousand tons of fruit juice in five months. Although the project is not at the stage of making a formal financing application to main dealing banks or related financial institutions, economic advisors of the government issued an alert relating to the national debt ability. They indicated that the nation does no have enough debt ability to complete the whole project. In the light of this point, increase of domestic production and recovery of economic growth are needed. It is expected that improvement of the condition will lead to enhancement of the debt ability, everything will turn for the better, and overseas loan enough to implement all stages of the project will become obtainable.

At present, efforts have been made to acquire economic grant aid for part of the projects listed in the first phase study. The examples include the afforestation program and the agroforestry system intended for small-scale producers.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

- 1. Magnesia material processing reestablishment project: Haichen Lien group hi-tech fireproof material project has started in early 2003, which 110 million RMB will be invested. At present, phase 1 construction has completed, part of whom are already starting production.
- 2. Haichen city ward business model area construction plan: 1) Yamato plaza, building area, 24,000 square meters. 140 million RMB was invested for new construction, which will start from early 2004. Now in progress. 2) Kyorin group. 10 million RMG was invested for a new shopping centre construction. Area, 24,000 square metres. Completion in November, 2004.
- 3. Development of central Haichen: Construction of Haichen Osteopathy Hospital complex building. 35 million RMB was invested and construction will start in early 2003. Operation from the end of 2004

(FY 2005 Domestic Survey)

The study has formulated urbanization guideline as well as Haichen comprehensive development plan. In the second year, focus was especially on the later plan, which has taken up Jiangsu province as a model to consider provincial urban policy and organization both from small and medium, and large and medium city perspectives. The study has also prepared urbanization strategy for Jiangsu province, which has been reflected to urbanization guideline. In the course of preparing the provincial development plan, Jiangsu city have adopted strategies considered and prepared in the main study.

(FY 2006 Domestic Survey)(FY 2007 Domestic and Overseas Survey)

No information to be specifically mentioned.

(M/P+F/S)

Compiled Oct.2002 **EAS** CHN/S 210/01 Revised Mar.2008

1.	COUNTRY	China							
	NAME OF COURTS	Study for Public	Transportation	n Improvemer	nt in Chendgu	city			
2.	NAME OF STUDY	,	1	•	Ü	•			
3.	SECTOR	Transportation		Urban Transp			4.	TYPE OF STUDY	M/P+F/S
5.	COUNTERPART AGEN TIME OF DEVELOPME	CY AT THE	Sichuan Provi	ncial Commis	sion of Scien	ce and Tech	nolog	39	
	PRESENT COUNTERPA	ART AGENCY							
6.	1. Formulating bus use centered public transport system development plan which promotes public transport use through improvement of public transport system in Chengdu targeting on 2010 in order to solve constant traffic jam in Chengdu Conducting F/S for projects with urgency. 3. Japanese side implements necessary technical transfer with Chinese C/P during a process of studies.					ant traffic jam in Chengdu. 2.			
7.	CONSULTANT(S)	ALMEC Corporation Chodai Co., Ltd.							
8.	STUDY PERIOD	Mar.2000 ~	Jul.2001	16month(s)	)				
	SITE OR AREA	M/P: 6 districts in central city of Chengdu(Counting unofficial district "the hi-tech industrial development zone" as one) and 6 towns inside the orbital road  F/S: 6 districts in central city of Chengdu(Counting unofficial district "the hi-tech industrial development zone" as one)							

# 10. MAJOR PROPOSED PROJECT(S)

M/P:

- 1. Bus exclusive lane construction project (406,619 thousands CNY)
- 2. Bus priority lane construction project (285,380 thousands CNY)
- 3. Bus related facilities project (341,939 thousands CNY)
- 4. Transportation control facility improvement plan (284,569 thousands CNY)
- 5. Policy/System etc. improvement plan

F/S: Project budget total: 145,878 thousands CNY (of which, domestic currency 100,233 thousands CNY, foreign currency 45,645 thousands CNY)

- 1. Main roads for bus exclusive lanes / 4 lines
- 2. Bus priority lanes / 7 lanes
- 3. Bus related facilities project (7 Bus stations, 10 transfer points, 230 bus stops) / 3 lines
- 4. Transportation control facilities improvement plan / 4 locations
- 5. Policy/system improvement plan / 5 projects

EAS CHN/S 210/01 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## Description:

(FY2002 Overseas Survey)

The proposed projects of the Study were integrated into the Urban Transportation Plan in Chengdu. Nothing was determined with regards to fund procurement.

#### (FY2002 Domestic Survey)

There is no information available on the current situations of this project .

#### (FY2003 Overseas Survey)

Public roads and private roads or semi-expressway will be opened on the assumption that conditions are prepared for new construction and reconstruction of roads aiming for successive construction of expressway networks. As for funds, government investment and private investment are supposed to be introduced.

With acceleration of city construction in Chengdu City, urban area has been gradually expanded, newly constructed housing complexes are gradually increasing and establishment of road network construction is gradually getting improved. As citizens who used to live in the center of the city are gradually relocating to newly constructed housing complexes, civil needs for public transportation system are rapidly increasing. The government is intending to emphasize improvement and investment in public transportation system.

Details of traffic-related projects already implemented in China are as follows.

- 1.Urban transportation project
- 2. Construction project of nucleus stations for public transportation
- 3. Roads exclusively for traffic were newly constructed in 36 places.
- 4. Chengdu City Public Transportation Network Improvement Project
- 5. Transportation markets were opened to encourage privatization of public transportation.

#### (FY 2004 Domestic Survey)

Visitor to the site confirmed satisfactory progress.

#### (FY 2004 Overseas Survey)

Concerned city has still not implemented/conducted prioritised project corresponding to the proposal of this project. However, by only referring to the outcome of this project and corresponding to related development policies of Chinese government and field situation, metropolitan transportation project will be commenced.

#### (FY 2005 Overseas Survey)

Subsequent Study: Chengdu City Bus Line Density study

Implementing body: Chengdu City Government, Chengdu City Planning Bureau, Shouthwest Jiaotong University

Objective: Increase rationality and appropriateness of current bus lines, new plans for bus lines

Funding: "Chengdu Bus Line Network Plan" project cost

Implementing project:

- 1) New construction of roads in Chengdu city central area
- 2) New construction of roads in Chengdu city central area
- 3) Expansion and construction of bus priority lanes
- 4) Construct 'hub terminal bus station' where environment is already fixed

Construction start period: 2002

Status of progress: 60-70% have been completed in central area.

Administration body after completion: Chengdu City Transportation Committee (Chengdu City PUblic Transportation Control Bureau, Chengdu City Public Safety and Transportation Control Bureau)

## Technical Cooperation:

### Training:

Urban Transportation Planning (Trainees: 7 personnel, Implementation period: 2001-2003)

### Others:

Coordination and adjustment of bus lines are matters of urgency. As average non-linear coefficient of bus lines in Chengdu city central area is 1.53 and average distance of roads reaches 21 km, structure of network is very irrational, causing troubles for passenger vehicles to pass by and increasing burden on road network. 'Busing' reform of urban passenger transportation has been

completed to a certain point, and it is now in its market adjusting phase.

Chengdu city has set up "Transportation Committee". It has just established a consolidated administration structure. Development and adjustment of current public transportation system is an

urgent matter. There is also a possibility of introducing new type of public transportation measure (e.g. monorails).

Development of the city and economy is so rapid that transportation volume study of 2000 can no longer be used. Chengdu city needs to implement a study to find out current situation.

### (FY 2006 Domestic Survey)

No information to be specifically mentioned.

# (FY 2007 Domestic Survey)

Chengdu City has already enforced most of road maintenance for a own-fund

## (FY 2007 Domestic Survey)

No information to be specifically mentioned.

Compiled Sep.2003 **EAS** CHN/A 103/02 Mar.2008 Revised 1. COUNTRY China The Study on Reforestation in Anning Watershed in Sichuan Province 2. NAME OF STUDY 3. SECTOR Forestry / Forestry & Forest Conservation TYPE OF STUDY M/P 5. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY There has been a frequent flooding in the Chang Jiang River, the most representative one in China, especially on the upper and middle reaches of the river. Against such a background, the National Project of Natural Forest Reservation has launched since September 1998. This study aims to formulate a Plan for Afforestation to achieve soil and water conservation through afforestation activities. This Plan targets at the Anning River basin, which has especially been **OBJECTIVES OF THE** 6. suffering from frequent natural disasters such as flooding, land slide and avalanche of rocks and earth caused by STUDY deterioration of forestry and soil loss. Japan Overseas Forestry Consultants Association 7. CONSULTANT(S) Aero Asahi Corporation Feb.2002 Sep.2000 17month(s) 8. STUDY PERIOD Approximately 540 thousand hectare in the Anning watershed, a branch river of Yalung River which is a branch of Jinsha River in Sichuan Province 9. SITE OR AREA

# 10. MAJOR PROPOSED PROJECT(S)

The Anning watershed located in southwestern parts of Sichuan Province is severely devastated and Anning River overflows frequently and it is a violent river carrying a large amount of earth and sand to downstream. Furthermore, there are many naked and eroded hillsides and a large amount of earth and sand is produced form there. A major survey area to be a model for this watershed is to be set and an afforestation plan including small-scale erosion control works for the area is to be formulated.

EAS CHN/A 103/02 M/P

PRESENT STATUS
Delayed
Discontinued

### **Description:**

(FY 2003 Overseas Survey)

The project will be implemented for five years including the first three years for afforestation and low-cost construction for mountain improvement and the remaining two years for concentration on cultivation of infant forests.

Building of forests: First year - 3,800.00ha; Second year - 5,078.00ha; Third year - 3,800.00ha Mountain improvement works: First year - 54.00ha; Second year - 72.00ha; Third year - 54.00ha

Breakdown of funds:

1,599,000 CNY purchase of equipment and materials - 3,990,000 CNY study and design - 5,892,000 CNY technical training, study, dissemination and promotion - 2,942,500 CNY emergency fund - 5,892,000 CNY. Total amount of investment for project construction - 294,600,000 CNY (4.464 billion JPY: 100 JPY = 6.6 CNY). (FY 2004 Domestic Survey)

"Model Afforestation Project in Sichuan" is implemented in Chang Jiang basin, which has relation with the implementation of the project, and thus it is anticipated that further plans be decided upon the completion of the project.

(FY 2004 Overseas Survey)

Adjust, and collate to the forestation plan, reflecting situations of an actual activity of previously conducted projects, such as the natural forest preservation project, "land to a forest" project, forestation in wasteland and mountains.

Period: August 2004 - October 2004

Implemented project: Sichuan Chang Jiang basin forestation and afforestation model project

Funding:

Funding party: Japanese Grant Aid Funding amount: 2,600 million yen

Content: forestation of 5,000 ha in dried valley of Chang Jiang Basin and dried valley and afforestation model 180 ha

Implementing period:

Construction: 1 July 2006 - 30 June 2010

Technical cooperation:

Training: total 14 persons for afforestation, and 14 persons for basin forestation

Dispatched experts: Dispatching one group each in the year 2006 and 2007: 1 person each for afforestation, basin forestation, chief advisor, and coordinator. Benefits:

Beneficiaries: Sichuan Province Forestry Bureau, Institute of Sichuan Province Forestry Research and Design, Liangshan Zhou Forestry Bureau, Panzhihua City Forestry Bureau, 5 Prefecture Forestry Bureaus of targeted projects, 5 Prefecture areas of targeted projects (Short-term: 7 millions in Liangshan Zhou Province and Panzhihua City, Mid-term: 86 millions in Sichuan Province, Long-terrm: 3 millions in the middle-lower sites of Chang Jiang)

Benefits: Ideal, Principles, methods, and process of this project offered a revolutionary innovation and a breakthrough for research and planning of basin forestation in Sichuan Province.

Progress

(FY 2006 Oversea Study) 85%

(FY 2005 Domestic Study) No information to be specifically mentioned (FY 2006 Domestic Study) No information to be specifically mentioned (FY 2007 Domestic Study) No information to be specifically mentioned

(FY 2007 Oversea Study)

Implemented project: Model Afforestation Project in Sichuan (extented)

Implementing body: Sichuan Province Forestry Bureau, Liangshan Zhou Forestry Bureau, JICA

Implementing period: July 2005 - October 2007

Funding:

Funding party: JICA (Technical Cooperation Project, R/D concluded: June 2005)

Funding amount: Japan: 975 million CNY, China: 1450 million CNY (1JPY=0.065CNY)

Objectives: 1) Build model nurseries and establish model reforestation projects in Xichiang-shi, Xide-xian and Zhaojue-xian in the Anning River basin; 2) Train engineers and disseminate technology to the local communities to improve ecological condition in the region.

Benefits:

Beneficiary: Residents in Xichiang-shi, Xide-xian and Zhaojue-xian in the Anning River basin

Benefits: Impacts of the project are as follow: 1) Improved the living environment of people in the Anning River basin through forestation, that is based on the voluntary activities by residents motivated by developmental approach; 2) it developed tray plant technology and compiled the series of documents about forestation, nursery and participatory approach. It formulated the models, which are appropriate for "Land to Forest" and "Natural Forest Preservation" projects, implemented by the Government of China; 3) it increased the farmers' income through the success of cultivating oilseed rape at high-lying area, implementing the model-sight of cultivating forest-grass and building ecology.

Technical Cooperation:

Training course: based on the training programme of China and Japan Forestry and Ecology Training Center (September 2006, July 2007)

Dispatch of Expert

Long-term: Chief advisor, operational coordination, nursery, forestation, training and diffusion (13)

Short-term: Maintaining forestation, forestry, nursery, conservation(29)

Progress

(FY 2007 Oversea Study) Following programmes were implemented: forestation of the model forest (344 ha); training and diffusion of forestation and nursery technology; simple conservation project.

EAS CHN/S 101/04 Compiled Jan.2006

Revised Mar.2008

1. COUNTRY China

2. NAME OF STUDY Study on the Master Plan for Air Pollution Control in Guiyang Municipality

3. SECTOR Administration / Environmental Problems / TYPE OF STUDY M/P

2.	NAME OF STUDY	Study on the Ma	aster Plan for Air Pollu	tion Control in Guiyang	g Municipalit	У	
3.	SECTOR	Administration	/ Environ	mental Problems	4.	TYPE OF STUDY	M/P
5.	COUNTERPART AGEN TIME OF DEVELOPME	-	Guiyang Municipality Department	Environmental Protect	ion Departme	ent, Guiyang Enviro	onmental Protection
	PRESENT COUNTERPA	ART AGENCY					
6.	OBJECTIVES OF THE STUDY	pollution-abater	•		•		Creating menting technical transfer to
7.	CONSULTANT(S)		ysis and Computing ants International				
8.	STUDY PERIOD	Jan.2003 ~	Oct.2004	21month(s)			
9.	SITE OR AREA	Throughout Gui	iyang Municipality				

# 10. MAJOR PROPOSED PROJECT(S)

- 1. Establishment of 4 desulphurization equipments for SO2 measures.
- 2. Establishment of 10 desulphurization equipments in aluminum factory for SO2 measures
- 3. Establishment of 5 desulphurization equipments in organic chemical factory for SO2 measures
- 4. Establishment of electronic dust collection equipment for granulated material measures

EAS CHN/S 10	01/04	M/P
	In Progress or In Use	
PRESENT STATUS	Delayed	
	Discontinued	
escription :		
FY 2005 Domestic and Oversea to information to be specifically		
FY 2006 Domestic Survey) to information to be specifically	y mentioned.	
FY 2007 Domestic Survey) to information to be specifically	y mentioned.	
Iunicipality implemented many	public of China have set up a goal to construct, well balanced urban city, where environment preservation is regarded. Guiy operations various fields, such as energy saving, reducing industrial drainage, participatory project, preventing pollution, a	and equipment
f environment management syst mprovement of current manager	tem. Proposed contents have been utilized, especially in enterprise environment system, energy saving, participatory project ment system.	ts, and

Compiled Feb.2007

**EAS** CHN/S 101/05 Revised Mar.2008 1. COUNTRY Study for Sustainable Underwater Utilization in Wigl Tolfan Basin 2. NAME OF STUDY 3. SECTOR Social Infrastructure / Water Resources Development TYPE OF STUDY M/P 5. Xinjang Uygur Autonomous Region, Bureau of Hydrology, Ministry of Water Resources, Turpan divisional department of water resource. COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY In order to make limited resources in Turpan basin sustainable, formulating master plans on water resource development/usage/management centered on groundwater following assessment of actual condition of water resource in Turpan basin. OBJECTIVES OF THE 6. STUDY KOKUSAI KOGYO CO., LTD. 7. CONSULTANT(S) Feb.2006 Apr.2004 22month(s) 8. STUDY PERIOD Turpan basin, located in Turpan district in Xinjang Uygur Autonomous Region 9. SITE OR AREA 10. MAJOR PROPOSED PROJECT(S) Prioritized project: Internal currency: CNY 1,310 mil-CNY1,670 mil The study team formulated the water resource use and management master plan aiming at tolerable groundwater pumping discharge (379 mil m3/y) in 2020 in Turpan basin in order to achieve sustainable groundwater use. In order to achieve the goal in 2020, the study team planned main countermeasures and projects as follows based on the principles, (1) Pilot water-saving project, Water-saving countermeasure project. (2) Planning project for existing dams (3) Wells development in west of the basin (4) Storage for flood surplus water (5) Qanat protection (6) Groundwater monitoring (7) Establishment of a watershed council (Start-up of the council is established as a groundwater council) (8) Awareness campaign and promotion (9) Expanded improvement of legal systems (Legal system improvement for water saving promotion, Development and implementation of administrative instruction for regional withdrawal license procedure) Four projects from all countermeasures and projects are selected as prioritized project as follows. (1) Pilot water saving project (2) two of dam construction projects including Alagou dam (3) Wells development in west of the basin (4) Groundwater monitoring with the participation of residents

**EAS** CHN/S 101/05 M/P In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** (FY 2006 Domestic Survey) No information to be specifically mentioned. (FY 2007 Domestic Survey) No information to be specifically mentioned.

(M/P)

Compiled Feb.2007

**EAS** CHN/S 102/05 Mar.2008 Revised 1. COUNTRY Study for Western Development Financial Institution Improvement NAME OF STUDY 3. SECTOR Administration / Public Finance & Banking TYPE OF STUDY M/P 5. People's Bank of China research bureau, Affiliate departments of the State Council COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY PRESENT COUNTERPART AGENCY Contributing to development of western region in China from the aspect of financial system reform by proposing about role of regional governments, central government, necessity of relevant legal systems development, efficient fundraising, and ideal shape of financial system which leads sustainable development of western Chinese region hereafter. OBJECTIVES OF THE 6. STUDY KRI International Corporation 7. CONSULTANT(S) Oct.2003 Nov.2005 25month(s) 8. STUDY PERIOD Throughout of western region(Chong Ching City, Shanxi province, Sichuan province, Guizhou province, Yunnan province, Gansu province, Qinghai province, Nei Mongol autonomous region, Ningxia Hui Autonomous Region, Tibet autonomous region, Xinjiang Uyghur Autonomous Region, Guangxi Zhuang Autonomous Region, 9. SITE OR AREA

## 10. MAJOR PROPOSED PROJECT(S)

Five strategic action plans

(Strategy 1. Financial system reform)

Action plan1: Political financial system reform. Action plan 2: Establishment of institutional finance to promote development of western region. Action plan 3: Development of agrarian system finance

(Strategy 2. Financial reform for agricultural community)

Action plan 4: Reinforcement of the Rural Credit Co-operatives reform, Action plan 5: Trial of credit operation running by the agrarian permanent collaborative organization. Action plan 6: Reinforcement of micro finance for agricultural communities.

(Strategy 3: Activation of regional finance)

Action plan 7: Cultivation of community oriented financial bodies and enlargement of community based finance.

(Strategy 4: Diversification of project finance etc)

Action plan 8: Issuance of local authority bond. Action plan 9: Cultivation of regional finance center in the western region. Action plan 10: Full scale implementation of the Public People Partnership(PPP)

(Strategy 5: Risk management and reform of skills, knowledge and information)

Action plan 11: Development of financial risk management system. Action plan 12: Development of industrial finance information center function. Action plan 13: Utilization of economic model and development of financial statistics. Action plan 14: Human resource cultivation for regional finance.

- Action plan for legal system development regarding development and financial system reform.

  1. Establishment of the "Western region development regulation" and the "organic law for regional development"
- 2. Code development and reconsideration of active laws which relates to development in western region.
- 3. Establishment of the "organic law for political finance institution(tentative title)"
- 4. Development of regulations based on the "organic law for political finance institution
- 5. Improvement of legal system to stimulate local banks.
- 6. Improvement of legal system for issuing local authority bonds.
- 7. Supervise and maintain the debt situation by local authorities.
- 8. Improvement of the law to allow PPP.
- 9. Improvement of the legislative foundation for the improvement of the financial risk management structure.

中華人民共和国西部開発金融制度改革調查 (社会開発部)

**EAS** CHN/S 102/05 M/P In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** (FY 2006 Overseas Survey) Proposal of the study has been a conerstone of the western development related monetary policy. (FY2007 Domestic and Overseas Survey) Reformations have proceeded in China after implementing the above mentioned study, such as the study on the promotion method of western region development, promotion of financial system reformation agenda, establishing rural area financial system in conjunction with the model, expansion of public support for compulsory education, have same policy recommendation and the direction in the mentioned study. The number of financial organizations in western region are increasing and quality of service is also improving. Demand for a large amount of funding is attracting private funding, and as a result, more private funding is also flowing into the western region. The country has augmented the funding to the western region.

(M/P+F/S)

Compiled Feb.2007 **EAS** CHN/S 201/05 Revised Mar.2008

1.	COUNTRY	China					
2.	NAME OF STUDY	Study for Yunnann Province Xiaohe river valley landslide disaster measures and environment restoration plan					
3.	SECTOR	Social Infrastructure / (Social Infrastructure in) General 4. TYPE OF STUDY M/P+F/S					
5.	COUNTERPART AGEN TIME OF DEVELOPME	Yunnan province the department of water resource CY AT THE					
٠.	PRESENT COUNTERPA						
6.	OBJECTIVES OF THE STUDY	Conducting F/S of urgent projects as well as formulating a master plan for environment restoration and landslide disaster relief in Yunnan province Xiaohe river.					
7.	CONSULTANT(S)	CTI Engineering International Co., Ltd. Pasco International Inc.					
8.	STUDY PERIOD	Jul.2003 ~ Mar.2006 32month(s) ~					
9.	SITE OR AREA	M/P: Throughout of Xiaohe river valley.  F/S: Four tributary streams of Xiaohe river valley(Wulong stream, Taojia stream, Tonjang urban zone basin, Doufugou basin)					
10.	MAJOR PROPOSED PR	OJECT(S)					

M/P:

Countermeasures against boulder flow(Check dam construction, Passage valve installation, Torrent control works) Countermeasures against river line erosion (Afforestation, Installation of hillside vegetation works, Terraced steps promotion for existing farmland), Main river line embankment plan(River development), Non-facilities countermeasures(Conservation of water and soil based on relevant regulations, Forest protection, Reinforcement of river channel management, Familiarization risk area by implementing hazard map, Development of flood forecasting system), Establishment of Xiaohe process management department.

Establishment of Xiaohe process management department, Countermeasures against sediment flow and river line erosion at the 4 tributary streams, Development of forecasting system through implementation of tele-metering hyetometer.

Project period of the plan:

1) Urgent plan(F/S): Jan. 2007 - Dec. 2010 2) Master plan(M/P): Jan. 2007 - Dec. 2020 EAS CHN/S 201/05 M/P+F/S

		1
	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

# **Description:**

(FY 2006 Domestic Survey)

The study was originally requested as a Yen Loan project. Due to the Japan's policy to suspend new Yen Loan project in 2008, China is needed to request a Loan by that time. However, it is concerned whether the request will be made in time because there are many other project requests from all over the country, which makes it difficult to gain high priority among them.

(FY2007 Domestic survey)

Yunnan Province was encouraged to implement the proposed urgent project in the mentioned study with a Yen Loan. However, the province abandoned the financial support and changed the policy to implement the project with their own funds.

(FY2007 Overseas survey)

Feasibility studies for the urgent project in the mentioned study have been completed. However, a concrete schedule has not been set due to lack of funding caused by the province's poor financial capability. For this reason, advice about the international donor route which can be utilized for implementation of the project is needed.

# STUDY SUMMARY SHEET (Other Studies)

(Other Studies) Compiled Feb.2007

EAS CHN/S 601/05 Revised Mar.2008

1.	COUNTRY	China				
2.	NAME OF STUDY	Study for Western Region Mid-Size City Strategic Development Plan				
3.	SECTOR	Development Plan / Integrated Regional Development Plan 4. TYPE OF STUDY Other Studies				
5.	COUNTERPART AGENORIES OF DEVELOPME					
	PRESENT COUNTERPA	RT AGENCY				
6.	OBJECTIVES OF THE STUDY	1) The study team Propose policies and systems for realization of comprehensive development strategy for cities and midsize cities in western region of China followed by reviewing the strategy. 2) As a base of the comprehensive development plan, The study establishes development strategies for 5 showcase midsize cities in Sichuan province, Yunnan province and Hunan province as appropriate to each city. 3) The study team intends knowledge exchange with Chinese affiliates who get involved establishment of urban development strategy as well as to promote close cooperation with country-by-country special training which are implemented by JICA.				
7.	CONSULTANT(S)	International Development Center of Japan KRI International Corporation Pacific Consultants International				
8.	STUDY PERIOD	Mar.2003 ~ Oct.2005 31month(s) ~				
	SITE OR AREA	Western region of China, Du Jang Yan city and Deyang city in Sichuan province, Dali city and Yuxi city in Yunnan province, Huaihua city in Hunan province				
10	MA IOD DDODOGED DD	OTE CT/(S)				

### 10. MAJOR PROPOSED PROJECT(S)

Eight urban development strategies

- 1) Developing urban industries: implementation of industrial promotion strategy, minor enterprises development strategy, strategy for invest enticement, commerce and logistics promotion and agriculture/agricultural processing promotion
- 2) Improving regional urban plans: Promoting integrated policies for land use, Formulating greater urban area plans, Promoting public information disclosure regarding urban plan areas, Cultivating regional core cities, Arranging professional qualifications which are relevant to urban planning, Formulating provincial extensive cities development plan, Promoting transparency and simplification of urban planning determination process, Improving countermeasures for internationalization as a Economic activation strategies for rural midsize cities.
- 3) Developing urban infrastructure: Improving enterprise functions for formulation of high quality infrastructure development plan, Ensuring budget for state level western districts development which are related to infrastructure development, Promoting environmental development in order to accelerate marketization and privatization. Learning "urban management" capacities.
- 4) Revising land use systems: Developing conservation system of farmland classification, Standardizing land transferring methods, Improving each level of comprehensive land use plan, Improving land seizure systems.
- 5) Establishing social security program: Resolving double structure of social security for urban areas, Restructuring social security programs for agricultural communities. Improving issues of existing systems.
- 6) Improving education in agricultural communities: Revising ideal financial shape of compulsory education. Improving distribution qualities of compulsory education, Establishing vocational programs so that vocational program can respond to workforce demand from enterprises.
- 7) Revising rural administrations and finances: Reforming administration managerial system with citizenry participation, Formulating regional/district alliance system, Reinforcing fundamental "regional force" by activating regional economy, Ensuring budgets for infrastructure development through establishment of regional bond issuance, Securing new revenues for western region development.
- 8) Protecting environment as well as using nature: Transforming from mass resource consumptive production into highly-efficient production, Establishing recyclable society, Rising awareness of city-dwellers about natural environment, Seeking economical rationality, Promoting wide-area environmental administration, Cultivating environmental industries.

**EAS** CHN/S 601/05 **Other Studies** In Progress or In Use PRESENT STATUS Delayed Discontinued **Description:** (FY 2006 Overseas Survey) No information to be specifically mentioned. (FY 2007 Domestic and Overseas Survey) No information to be specifically mentioned.

(M/P+F/S)

$\mathbf{E}^{A}$	AS CHN/S 2	01/06					Revised	Mar.2008
1.	COUNTRY	China						
2.	NAME OF STUDY	The Study on the Improvement of the Water Rights Systems						
3.	SECTOR	Social Infrastru	cture	/ Water Resources I	Development 4.	TYPE OF STUDY	M/P+F/S	
5.	COUNTERPART AGEN TIME OF DEVELOPME	_	Ministry of \	Water Resources(M	WR)			
	PRESENT COUNTERPA	ART AGENCY						

# OBJECTIVES OF THE

1) make suggestions about basic framework necessary for development of water privilege system 2) conduct technology transfer to strengthen management structure of water resources and management capacity of water privilege The basic framework of water privilege system are (1) introduction of the knowledge and experience of Japanese water privilege system, (2) cooperation about the development of water privilege system in country-wide level, and (3) case study in model area.

Compiled

Jul.2008

## Nippon Koei Co., Ltd. 7. CONSULTANT(S)

KRI International Corporation

# 8. STUDY PERIOD

Jul.2004

Sep.2006 26month(s)

Development of water privilege system in country-wide scale in China

Model area: Taizi river basin(13,883km2 in area, 413km in stream length, 8.28million people in population) in Liaoning Province(145,746km2 in area, 41.03million people in population)

9. SITE OR AREA

# 10. MAJOR PROPOSED PROJECT(S)

Main suggestions against water privilege system in China: basic framework of water privilege system development

- \* Development of water privilege system with consideration of climate, water use, land use, history, and culture of China
- \* Development of water resource management and water privilege system by the appropriate administration of the government would suit well.
- \* It is in stage to develop water privilege system and conduct primary distribution of water privilege. Introducing water privilege system by making use of existing acquisition permission system is most practical. Promote the system development in stages by securing public essence and real right essence of water privilege.
- \* Conduct the existing acquisition permission system firmly as premises for promoting the development of water privilege system.
- \* Strengthen basin water resource management in stages in order to secure water privilege. Ensure consistency of water resource plan and water privilege, and increase the degree of water use safety in area that water resource is deficient, and increase water use elasticity in drought time.
- \* Although it is in stage that is able to conduct water privilege assignment if conditions are developed, it should be conducted carefully by developing relevant institutions. Pay attention to abrupt establishment of free competition market principle. In order to reduce the risk of adverse influence occurrence by transfer and assignment of water privilege to minimum level, transfer and assignment should be started from negotiation transaction in mediation by government and third party agencies, and then shift in stages to quasi market trade by establishing compensation system against adverse influences.
- \* It is possible to increase the amount of usable water resources by improving water quality. Conduct development of integrated organization which conduct comprehensive management of water privilege and water quality effectively.
- \* It is too early to introduce effluent trading system in full scale. Conduct existing sewage drainage density regulation firmly at first.
- \* Introduce disclosure of information and democratic stakeholders participation system, and develop mechanism to prevent conflict by the introduction of water privilege system.
- \* Conduct development of water privilege system in stages about 15years(from 2006 to 2020) by developing conduction and operation structure.

Main conclusion and suggestion about priority subjects

water resource distribution system: 11terms, water privilege system: 9terms, water market system: 5terms, water pricing system: 11terms, drainage water management system: 11terms, service water measurement system: 6terms, service water transfer system: 15terms

EAS CHN/S 201/06 M/P+F/S

	Completed or In Progress	Promoting
	Completed	
PRESENT STATUS	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

## **Description:**

(FY 2007 Domestic Survey)

The Ministry of Water Resources of the People's Republic of China, which is the conducting agency, is feeling positive about the conduction of Phase2(model project), and considering about the conduction of model project.

(FY 2007 Overseas Survey)

Implemented Project: "The Eleventh Five-Year Plan" Water Saving Society Structuring Project in China

Implementing Period: from 2006 to 2010

Implementing Body: Ministry of Water Resources, National Development and Reform Commission, Ministry of Construction

Objective: The objective is to structure water saving society that is environmental-friendly and able to develop scientifically, by increasing the utilization degree of water resources in main, and by developing complete system and facilities. By water saving measures in agriculture, industry, and in urban area, it is targeted to decrease the amount of water use per GDP at 2005 more than 20% until 2010.

Contents: 1) structure water resource management system centering on total amount control of water resources and flat-rate pricing management 2) complete development of water saving incentive policy 3) structure economic structure and system that is appropriate to the loading capacity of water resource 4) complete development of operation and technology system that would be useful for the effective utilization of water resource 5) conduct water-saving reconstruction and FU project in large and middle-scale irrigation areas

Progress:

(FY 2007 Overseas Survey) 1) Distributed "Water Saving Society Structuring Eleventh Five-Year Plan" and set out the objective and primary mission for the structure of water saving society, in national, basin, and provincial level. 2) There is new development in Water Saving Society Structuring Model Project. 3) New water saving mechanism have been structured. 4) The degree of water use is obviously increasing.