PROJECT SUMMARY (F/S)

ASO CHN/A 304/89

Compiled Mar.1991
Revised Mar.1996

I. OUTLINE OF STUDY

1.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.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY:
Hunan Science and Technology Commision

7.OBJECTIVES OF STUDY:
Feasibility study on the comprehensive water utilization and agricultural development plan

8.DATE OF S/W: 1988/4

9.CONSULTANT(S):
Sanyu Consultants Inc.
Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 14
Period Aug.1988-Feb.1990(18 months)

Total M/M	Japan	Field
53.70	19.60	34.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	194,043 (¥'000)
Contracted	160,483

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Northern part of Hunan Province
(right bank of Yangzi River middle basin)

2.PROJECT COST

(US$1,000)
(US$1=4.1Gen)

	Total Cost	Local Cost	Foreign Cost
1)	28,263	27,883	380
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1)Model Block at Nan-da-ti Area
(15,400ha: Nan-da area 8930ha; Huang Mao Zhou area 6,470 ha)
- Drainage facilities for dike improvement work
- Electric-transmission for Xiang-nan Drainage Pump Station
- New pump station at the Nan-da District
- On-farm level irrigation land in the Huang Mao Zhou district

2)Model Block at Shi-ji-hu-ti Area (105ha)
- Drainage facitilites and Horticultural facilities for technical Development
- Experimental Center
- Pump station land and other auto-irrigation facilitites
- Tunnel house

* Implementation period below is 5 years.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	13.60	FIRR1)	
EIRR2)	20.10	FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
- The evaluation period is 50 years for 1), 20 years for 2).
- The incremental crop production was calculated as the direct benefits of the project.

Development Impacts:
It is expected that agricultural development in Dong-Ting-Lake Reclamation area and urban type vegetable production could become possible.

*The EIRR 1) and 2)are for Nan-da-ti and for Shi-ji-hu-ti

5.TECHNICAL TRANSFER

Transfer of technology for government officials in China and Japan were made.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

(FY1991 Overseas Survey)
In 1991 a request for a Japanese Grant Aid was made by the Chinese Government. Out of the total project budget of 2.55 billion yen, 1.2 billion yen is expected to be financed by the Grant Aid and the remaining by domestic funds.

(FY1992 Overseas Survey)
The Chinese side is executing the following projects by the local funds and hopes to execute the new pump station project in the Nan-da-ti Area.

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)

(FY1994 Domestic Survey)
Basic Design Study using Japanese grant aid of FY1994 was decided to implement.

(FY1995 Domestic Survey)
Survey works for basic design has been carried out during February to June, 1995.

(FY1995 Overseas Survey)
A part of construction works are continuously carrying on by local fund since 1990. Both basic and detailed design of this project were completed already. If in case of the Japanese grant aid, which has been approved an amount of 1.1billion J.yen on June,1994, becomes available within the year of 1996, it will be able to complete the construction works until 1997. So, the release of the freezed grant aid is very much desired.

2.MAJOR REASONS FOR PRESENT STATUS

In the large-scale agricultural development projects in China, local funds occupies a major part of finance. The request for finance is usually made only for foreign currency portion.

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③

和名 湖南省洞庭湖地区総合水利及び農業開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

ASO CHN/S 312/89

Compiled Mar.1991
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Construction Project of Wuhan / Tanhe Civil Airport

3.SECTOR: Transportation/Air Transportaion & Airport

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Civil Aviation Administration of China(People's Government of Wukan City)

7.OBJECTIVES OF STUDY: Construction of New Airport

8.DATE OF S/W: 1988/8

9.CONSULTANT(S): Japan Airport Consultants, Inc.

10.STUDY TEAM

No.of Members 9

Period Nov.1988-Mar.1990(13 months)

Total M/M	Japan	Field
58.25	31.25	27.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	174,384 (¥'000)
Contracted	136,482

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Wuhan City(Population 6.244 million, Area 8392 sq.km)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	142,120	94,200	47,920
2)			
3)			

3.CONTENTS OF MAJOR 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, Airconditioning Facility, Rescue and Fire-Fighting Facility, Access Road etc.

Imp. Period: 1990.8-1993.12

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

EIRR1)	12.10	FIRR1)	7.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Conditions]
- The project life is 20 years beginning from 1990.
- The average interest rate should be below 7%.
- The Project is economically feasible since the economic internal rate of return is over the social discount rate of China.
- Since the operational institution of this project has already been established, the project is feasible from a view of management.

[Impacts]
1)To save the time of Chinese passengers;
2)Increase of income of tourism;
3)To save the direct cost of transport for the Chinese air companies;
4)To save the cost of noise compensation as social cost.
5)Increase of comfortableness and convenience; 6)Increase of job opportunities.

5.TECHNICAL TRANSFER
- Methodology for airport planning.
- Method of Passenger Survey by questionnaire.
- Training in Japan.(The number of trainees is not clear.)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - (●) Completed
  - ( ) Partially Completed
  - ( ) Implementing
  - ( ) Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)

The OECF Loan Agreement(L/A) amounting to 6,279 million yen was signed in March 1991, and the local fund has been allocated by China Construction Bank to the amount of 665 million yuan.

With the ratification of the L/A by the Government, the construction work commenced on 16 December 1990.

Design services were provided by 8 design groups including the Civil Aviation Authority of China and the mid-south China Building Design Institute.

Construction work has been supervised by Wuhan Airport Construction Supervision Department.

The project will be completed by the end of 1993.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1994 Domestic Survey)
All the airport facilities were completed in 1993, with the flight check of navaids calibration. Airport 6-lane highway(one way:3-line) running between the airport and city center is near to its completion as of 3 November 1994.

However, there has been difference in opinion between Uhan's People's Local Government and CAAC regional administration office. The airport has not been made operational yet to date.

(FY1994 Overseas Survey)
(1991-1992)
After F/S completed, detailed design was presented by 8 Chinese consultans (Civil Aviation Administration of China and South China Institute of Architectural Design as central members), based upon the F/S. The first architecture section of Wuhan City started construction in 1992. One of the most critical differencec 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.

(the end of December 1994)
Constructin of airport facilities was completed, and test flights were conducted. Inspection of the facilities was finished and the airport would be opened within 2-3 months. The authority of airport perations were being transfeered to an operational management corporation. Roads to the airport and employees residential facilities were under construction.

Total cost of the construction is 655 million yuan. Funding details

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③、④

和名 武漢天河空港建設計画

Continued on [F/S,D/D]

状況（要約表添付文書）

ASO CHN/S 312/89 (F/S)

Name of Construction Project of Wuhan / Tanhe Civil Airport Study

Country China

Type of Study F/S

Sector Transportation/Air Transportaion & Airport

Present Status: Completed

(Description)

The OECF Loan Agreement(L/A) amounting to 6,279 million yen was signed in March 1991, and the local fund has been allocated by China Construction Bank to the amount of 665 million yuan.
With the ratification of the L/A by the Government, the construction work commenced on 16 December 1990.
Design services were provided by 8 design groups including the Civil Aviation Authority of China and the mid-south China Building Design Institute.
Construction work has been supervised by Wuhan Airport Construction Supervision Department.
The project will be completed by the end of 1993.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1994 Domestic Survey)
All the airport facilities were completed in 1993, with the flight check of navaids calibration. Airport 6-lane highway(one way:3-line) running between the airport and city center is near to its completion as of 3 November 1994.
However, there has been difference in opinion between Uhan's People's Local Government and CAAC regional administration office. The airport has not been made operational yet to date.

(FY1994 Overseas Survey)
(1991-1992)
After F/S completed, detailed design was presented by 8 Chinese consultans (Civil Aviation Administration of China and South China Institute of Architectural Design as central members), based upon the F/S. The first architecture section of Wuhan City started construction in 1992. One of the most critical differencec 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.

(the end of December 1994)
Constructin of airport facilities was completed, and test flights were conducted. Inspection of the facilities was finished and the airport would be opened within 2-3 months. The authority of airport perations were being transfeered to an operational management corporation. Roads to the airport and employees residential facilities were under construction.

Total cost of the construction is 655 million yuan. Funding details are as follows:

OECF(the third loan)	5 billion yen(200 illion yuan),
Chinese government	100 million yuan,
Wuhan Cith Office	90 million yuan.

The rest (265 illion 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.

(FY1995 Domestic Survey)
The opening ceremony had been held on 27th Dec., 1994 and commenced its services as for the new airport.

PROJECT SUMMARY (F/S)

ASO CHN/S 311/89

Compiled Mar.1991
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Construction Projects of the Three Ports

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Communications

7.OBJECTIVES OF STUDY
Execution of the feasibility stury on three ports development project

8.DATE OF S/W 1988/8

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
Yachiyo Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 21
Period Dec.1988-Feb.1990(15 months)

Total M/M	Japan	Field
114.28	60.90	53.38

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	290,001 (¥'000)
Contracted	280,829

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1.Port of Quihuandao; 2.Port of Lianyungang; and 3.Port of Shijiu

2.PROJECT COST

(US$1,000) (US$1=3,722yuan=141Yen)		Total Cost	Local Cost	Foreign Cost
	1)	126,485	72,821	53,906
	2)	162,251	116,684	45,566
	3)	107,420	61,305	46,112

3.CONTENTS OF MAJOR 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	m	1,602.5	1,100	900
Berth		2(35,000DWT)	6(1.5DWT)	1(20,000DWT)
		3(20,000DWT)		4(15,000DWT)
		2(15,000DWT)		
Revetment	m	610	1,865	1,605
Dredging	x 1,000cu.m	4,400	9,816	1,005
Reclamation	x 1,000cu.m	3,230	3,775	2,596

Imp. Period: 1991. -1995. 1991. -1994. 1991. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	19.60	FIRR1)	5.10
EIRR2)	13.10	FIRR2)	3.60
EIRR3)	12.90	FIRR3)	3.90

Conditions and Development Impacts:
(Conditions)

	Unit	1)Quihuandao Port	2)Lieyun Port	3)Shijiu Port
Project Life	years	35	34	35
Est.amt.in 1995	x 10,000ton	889	2,260	245
Amt.covered by this project	x 10,000ton	300	220	220

(Development Impacts)
Common to these three ports;
-Economic effects such as reduction in transportation cost
-Acceleration of regional development etc.

5.TECHNICAL TRANSFER
Execution of a small seminar on coastal area development (at the time of 1st and 4th field study)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [x] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ● Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
(FY1992 Overseas 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.

Shijiu Port Second Phase Construction Project
Oct. 1991 (I) L/A Signed 2,506 million yen
Oct. 1992 (II) L/A Signed 3,583 million yen
Major Components: 3 berths (15 kilo ton class)
2 berths (10 kilo ton class)
Liangyungang Port Xugou Area First Phase Construction Project
Oct. 1992 L/A signed 5,900 million yen
Major Components; 6 berths
Port equipment
Qinhuangdao Port E and F Berth Construction Project
Oct. 1992 (I) L/A signed 3,418 million yen
Jan. 1995 (II) 3,041 million yen
Aug. 1993 (I) L/A signed 3,944 million yen
Major Components:3 coal terminals (30mega ton per year)
Jan. 1995 (II) 7,178 million yen
1)Shihjiu Port
Extention 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
The entire plan incorporated in the long-term port development plan was approved in Hebei and the Dept. of Traffic.
3)Lianyun Port
Some parts of the plan were altered by the national examination.
May 1993 Commencement of construction
Jun.1996 Completion scheduled

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③、④

和名 三港湾整備計画

{F/S,D/D}

PROJECT SUMMARY (Basic Study)

Compiled Mar.1992
Revised Mar.1996

ASO CHN/S 502/90

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Groundwater Development Project in Urumuqi

3.SECTOR: Social Infrastructu/Water Resource Development

4.REFERENCE NO.:

5.TYPE OF STUDY: Basic Study

6.COUNTERPART AGENCY: Ministry of Geology & Mineral Resources

7.OBJECTIVES OF STUDY: To conduct the master plan on the groundwater resources development for Su-Shan water source area

8.DATE OF S/W: 1987/8

9.CONSULTANT(S): Yachiyo Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 7

Period Jun.1988-Jul.1990(25 months)

Total M/M	Japan	Field
43.96	16.06	27.90

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: None

12.EXPENDITURE

Total	445,584 (¥'000)
Contracted	161,643

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Su-Shan water source area

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
US$1=135yen	1)	16,500	2,500	14,000
	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Groundwater Development:
30000t/day (15 drilling production wells with pump equipment)

Water Supply System:
Su-Shan, Urumuqi City
Diameter 500mm Ductile iron pipe; 16000m
Distribution in Reservoir; 6000 sq.m

4.CONDITIONS AND DEVELOPMENT IMPACTS

Urumuqi City has a water supply system of 160,000t/day capacity with a population of about 1200,000. 850,000 people out of it are recieving 80 litter per day.
By this project, about 30% of the capacity will be increased and more than 100,000 people will be newly benefitting by conducting developed water to the worse areas.

5.TECHNICAL TRANSFER

1)Know how to drive the high speed drilling rig and to manipulate progressed logging devices.
2) Know how to simulate the groundwater flow using the computer.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

- [x] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)

The local government hopes for the project implementation by the grant aid from the Japanese Gavernment. 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.

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
At the end of 1994, the local government of Urumuqi City made this projects 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.

2.MAJOR REASONS FOR PRESENT STATUS: Financial problem.

3.PRINCIPAL SOURCE OF INFORMATION: ①、②

和名 ウルムチ地下水開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASO CHN/S 202B/90

Compiled Mar.1992
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Municipal Solid Waste Treatment Plan in Xian City

3.SECTOR
Public Utilities/Urban Sanitation

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Joint Venture of Study for Municipal Solid Waste Treatment Plan in Xian City

7.OBJECTIVES OF STUDY
Present Condition Analysis & Master Plan
Feasibility Study

8.DATE OF S/W 1988/9

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 13
Period Jan.1989-Jun.1990(16 months)

Total M/M	Japan	Field
70.11	38.56	31.55

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	261,310 (¥000)
Contracted	15,334

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
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>

2.PROJECT COST (US$1,000)
1$US=5 yuan

		Local Cost	Foreign Cost
M/P	1)	14,431	14,431
	2)		
F/S	1)	4,233	4,233
	2)		
	3)		

3.CONTENTS OF MAJOR PROJECT(S)

<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 : Compector Container 160 tons/day
Flat Landfill 360 tons/day

Imp. Period: 1991. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	25.20	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

<M/P><Impacts>:1) By adopting separate discharging system, flexibility for the future change of the disposal system would be secured. 2) The project would bring about more efficient waste collection and haulage system.
3) The project would make an improvement of environmental preservation.
<F/S>Unit cost;
Operation and Maintenance 11.8 Yuan/ton Total cost 35.7 Yuan/ton
The present waste collection charge is 10 Yuan/ton. For implementation, the subsidy from city budget to the environment management agency is needed. If the charge to the beneficieries is increased twice and three times, the subsidy amount will be 83% and 66%.

Charge (Yuan/ton)	Amount of Subsidy ('000/Yuan)
10	82,337
20	68,402

<Impacts>: The project would bring about more efficent waste collection and haulage
system and the project would make an improvement of environmental

5.TECHNICAL TRANSFER
From the view point of the effective transfer of knowledge, all field investigation works were carried out in cooperation with couterpart engineer.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ● Partially Completed
  - ○ Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
(FY1991 Overseas Survey)
A detailed design financed by domestic fund has been conducted since 1991.
The project is assigned high priority in the city's eighth Five Year Plan (1991-95), and the city hopes for further cooperation of JICA in continuing the study on the construction of the transfer station.

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
The 1st phase of construction of the waste disposal facility at Chian-Sun District as for a short term project with high priority had been completed at the end of 1994 and utilized already.
This project was inevitable from the legal point of view and implemented by means of local financing which was deposited year by year. Another projects such as the construction of waste combustion facility, loading /unloading station for the wast are not meterialized due the lack of techonolgies and equipment. Eagerly expecting to have the cooperation from Japan.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 西安市生活廃棄物処理計画

(M/P+F/S)

PROJECT SUMMARY (F/S)

Compiled Mar.1992
Revised Mar.1996

ASO CHN/A 305/90

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Agricultural Water-use Development Project on Haizi Dam Area in Beijin City

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Water Resources

7.OBJECTIVES OF STUDY
To judge the feasibility of this Water Saving Irrigation Project by introducing the modern water management system

8.DATE OF S/W 1988/11

9.CONSULTANT(S)
Japan Engineering Consultants Co., Ltd.
Sanyu Consultants Inc.

10.STUDY TEAM

No.of Members 9
Period Dec.1989-Mar.1991(15 months)

Total M/M	Japan	Field
58.64	25.70	32.94

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Installation of the Water Level Gage.

12.EXPENDITURE

Total	187,087 (¥'000)
Contracted	172,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Beijin city, Pinggu Prefecture

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	37,566	21,856	15,710
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
(1) Rehabilitation of South Main Canal, 1 = 24.3 Km
(2) Rehabilitation and Cosntruction of Appurtenant Facilities of North/South Main Canal, 149 nos.
(3) Cosntruction 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) Sprincling Equipment, 2,544 sets
(7) Construction of Road, 1 - 87.5 Km
(8) Installation of Water Management Equipment, L.S.

Imp. Period: 1991. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	38.78	FIRR1)	30.86
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Development Impacts::
1. Promotion of the development of correlated industry
2. Promotion of the development of livestock industry
3. Saving time and cost of distribution for agricultural products
4. Improvement of the living standard
5. The income of a medium size farmer will be increased from 1,500 yuan to 4,500 yuan.

5.TECHNICAL TRANSFER
The technical transfer has been made as follows to the counterparts.
- how to collect and analyze the data
- how to measure the soil moisture
- how to arrange the survey results as F/S Report

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
This project consists of two parts: (1) technology transfer for water saving irrigation by the project-type technical cooperation (2) introduction of the water management equipment through Japan's Grant Aid Assistance.
The Government of China had already requested the first one to the Government of Japan in 1991, and the Government of Japan agreed. Consequently, the Government of Japan had executed the long-term investigation from August 24, 1992 to September 17,1992. And the Mission for discussion on the execution has been dispatched from February 22, 1993 to March 4.
For the second one, the Government of China intends to request after finishing the on-going agricultural development project by the Japan's Grant Aid Assistance.
(FY1992 Overseas Survey)
Rehabilitation and construction of the North Main Canal were completed by the local funds in Dec.,1991.
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)
In order to introduce the Water Saving Irrigation, the Chinese side hopes to finance the water management system by the Japan's Grant Aid. Especially, the local government has a strong wish to implement this project in this way.

(FY1994 Domestic Survey)
Based on the Exection Discussion of 1993, five experts were dispatched in June, 1993 for the technical cooperation.

(FY1995 Domestic Survey)
The request of this project as for an agricultural grant aid project has been submitted to the Ministry of Finance and Trade by the Ministry of Water Resources. At present, it is waiting for its turn to request to Japan.

2.MAJOR REASONS FOR PRESENT STATUS
For the second one mentioned above, this is the plan of the Ministry of Foreign Economic Relation and Trade.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 北京市海子ダム農業水利開発計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1992
Revised Mar.1996

ASO CHN/S 313/90

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Rapid Railway Construction Project in Tianjin

3.SECTOR: Transportation/Railway

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Tianjin Science and Technology Commission

7.OBJECTIVES OF STUDY: F/S for a new railway line construction between Tianjin and Tanggu, about 50km

8.DATE OF S/W: 1988/9

9.CONSULTANT(S): Japan Railway Technical Service
Yachiyo Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 14

Period Feb.1989-Jun.1990 (17 months)

Total M/M	Japan	Field
62.28	35.84	26.44

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: Local students were used in a supplemental survey for collecting traffic data.(Costs borne by the Chinese side.)

12.EXPENDITURE

Total	189,751 (¥'000)
Contracted	184,186

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Tianjin City
Area: 11312km Population: 8.15 Million (1986)

2.PROJECT COST (US$1,000) US$1=4yuan

	Total Cost	Local Cost	Foreign Cost
1)	396,958	281,875	115,083
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Construction by Tianjin City of a new passenger railway line of about 50 km between Tianjin and Tanggu --- Major purpose is the development of regions along the route,especially,the improvement of commuter transport in Tianjin and Tanggu,and balanced development of regions along the Hai He River.
-Section to be opened at the 1st Stage(end of 1995): between Shuang Lin and He Bey Lue,38.70km,Structures: viaduct 31.50km,embankment:7.20km,No.of stations:9
rolling stock:58 cars(commuter electric railways),maximum operation speed of trains 120km/h
-Section to be opened at the 2nd stage(early 2000):between He Bey Lue and Tianjin New Port,10.85km,No. of stations:2,rolling stock:84 cars
Operational safety and traffic control systems:cabsignal block system,cab signal system,1st-type electric relay or electronic relay system,automatic train control(ATC)system,centralized train control(CTC) system; Rolling stock base:1)Base facilities:facilities for main part inspection or overhaul,temporary repair,trip inspection,regular inspection(monthly,etc.),car cleaning facilities,storage track,etc. 2)Inspection and repair facilities:management office,inspection building,workshop building,wheel grinding shop,maintenance base,other buildings. Electric facilities:power transformation facilities,contact wire facilities,power transmission and distribution wire

Imp. Period: 1991. -1999.

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes/No

EIRR1)	7.21	FIRR1)	2.42
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Preconditions:
1. Inflation : Not considered
2. Exchange rate: 1yuan = 36 yen
3. Residual value: Earmarked for the last year of the project and residual value.
4. Period of analysis: Up to 2020 (30 years from the start of construction).
5. Transport demand: Estimated for 1996, 2000, and 2015.
Fare is assumed to be 0.05 yuan per km.

Development Impacts:
1) greatly increase the passenger transport capacity between Tianjin and Tanggu and reinforce the basic railway network in Tianjin.
2) promote comprehensive urban construction projects in Tianjin City, especially, the economic and technical zone development projects, etc.
3) promote harmonized development of areas along the Hai He river as well as the sound development of all of Tianjin.

5.TECHNICAL TRANSFER

1) Technical transfer, via on-site work, concerning demand forecasting, construction standards, train operation planning, electrification, signal and telecommunication facilities and rolling stock.
2) Training one couterpart in demand forecasting (Jan. and Feb., 1990).

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [ ] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ○ Implementing
  - ○ Processing
- [■] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)

At present, it seems that technical sectors are considering the materialization of the project. However, details are unknown.

(FY1991 Overseas Survey)
To date neither a detailed study nor official request for financial cooperation has been made.

Information from Tianjin, as of February 1993:
At the time when the JICA report on the F/S was submitted, it was impossible to implement this project due to the financial difficulty. However, the Tianjin City Government has decided to incorporate the project into a projection on a commercial basis. In this regard, in order to promote the construction, the City Government is planning to dispatch a study team to Japan to conduct observation and discussions concerning the present situation of high-speed guided transport systems in Japan and related technical problems mentioned in the report.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1994 Domestic Survey)
In this project, Solin station is scheduled to be the starting point, on the precondition that the Tianjin Subway Line No.1 will be extended to Solin. However, request for financial assistance has not yet been made, because the extension work of the subway is being delayed.

(FY1994 Overseas Survey)
1) Although a loan from Japan was applied to the National Planning Committee, 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.
2) 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 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

2.MAJOR REASONS FOR PRESENT STATUS

Delay of other related projects (development of economic and technical development areas).

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③

和名 天津市津塘快速鉄道新線建設計画

Continued on (F/S,D/D)

状況（要約表添付文書）

ASO CHN/S 313/90 (F/S)

Name of Study: Rapid Railway Construction Project in Tianjin

Country: China

Type of Study: F/S

Sector: Transportation/Railway

Present Status: Promoting

(Description)

At present, it seems that technical sectors are considering the materialization of the project. However, details are unknown.

(FY1991 Overseas Survey)
To date neither a detailed study nor official request for financial cooperation has been made.

Information from Tianjin, as of February 1993:
At the time when the JICA report on the F/S was submitted, it was impossible to implement this project due to the financial difficulty. However, the Tianjin City Government has decided to incorporate the project into a projection on a commercial basis. In this regard, in order to promote the construction, the City Government is planning to dispatch a study team to Japan to conduct observation and discussions concerning the present situation of high-speed auided transport systems in Japan and related technical problems mentioned in the report.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1994 Domestic Survey)
In this project, Solin station is scheduled to be the starting point, on the precondition that the Tianjin Subway Line No.1 will be extended to Solin. However, request for financial assistance has not yet been made, because the extension work of the subway is being delayed.

(FY1994 Overseas Survey)
1) Although a loan from Japan was applied to the National Planning Committee, 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.
2) 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 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.
(Note)
An Australian corporation financed A$ 100mil. for the subway construction at Tianjin City, as a relating project. The section between Tianjin and the oroginal starting point of railway(11km southeast from Tianjin Station) planned in JICA's F/S will be served by the subway after completion.

(FY1995 Domestic Survey)
No additional information.

PROJECT SUMMARY (F/S)

ASO CHN/A 306/91

Compiled Mar.1993
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Improvement of Agricultural Land Reclamation Dike and Agriculture Development Project, Qinzhou Region, Guangxi Zhuang Autonomous Region

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
China Guangxi Water and Power Department

7.OBJECTIVES OF STUDY
Feasibility Study of the improvement of Agricultural Land Reclamation Dike and Agriculture Development in two selected typical regions.

8.DATE OF S/W 1990/2

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

10.STUDY TEAM

No.of Members 11

Period Aug.1990-Sep.1991(13 months)

Total M/M	Japan	Field
52.50	32.93	19.57

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	245,618 (¥'000)
Contracted	170,591

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Qinzxhou Region, Guangxi Zhuang Autonomous Region
Area: 34,363 ha, Population: 135(thousand) (1990)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	240,742	178,894	61,847
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Baigumei	Kangxilingwei	Total
• Reclamation Area	: 7,930 ha	3,333 ha	11,263 ha
• Reclamation Dike	: 23.4 km	12.4 km	35.8 km
• River Embankment Improvement	: 43.8 km	39.6 km	38.4 km
• Headworks	: - unit	1 unit	1 unit
• Main Irrigation Canal	: 31 km	9.6 km	12.7 km
• Roads	: 463 km	40.0 km	86.3 km

Imp. Period: 1991.1-2012.12

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	11.20	FIRR1)	9.20
EIRR2)	10.20	FIRR2)	8.30
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
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.
Period for construction: 12 years.
Period for settlement : 2 years.
Start farming in 15 years

Development Impacts: Flood control, Settlement to new land, Increase agricultural, fisheries and animal products , Improve rural living conditions.

The economic and financial evaluation is as follows:

	Baiquwei		Kangxilingwei	
	Economic	Financial	Economic	Financial
IRR	11.2%	9.2%	10.2%	8.3%
E/C ratio (discount ratio 8%)	1.46	1.15	1.29	1.04

5.TECHNICAL TRANSFER
Technical Transfer of Design Criteria on Reclamation Dike was done.
Technicaal Training for the coutnerparts have been carried out in Japan.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

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 Guangxi 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 Guangxi 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.
(FY1992 Overseas Survey) Waiting for the answer.

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
It is learnt that the works of this project was suspended due to the change of circumstances at the region. More detail of the reason is not available.

2.MAJOR REASONS FOR PRESENT STATUS

At the beginning, the Guangxi Regional Planning Committee was trying to implement the project in the National 8th Five Year Plan. However, the project requires adjustment to an integrated rural development plan, especially the harbor development plan. Besides, this project is not excecuted without the results of an environmental study which is currently in process.

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 広西壮族自治区欽州地区農業海河堤整備及び農業開発計画

[F/S,D/D]

PROJECT SUMMARY (F/S)

ASO CHN/S 314/91

Compiled Mar.1993
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Telephone Network Automatizaiton Plan in Dehui County, Jilin Province

3.SECTOR: Communications & B/Telecommunication

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Posts and Telecommunications Administration of Jilin Province

7.OBJECTIVES OF STUDY: To formulate a telephone network automatization plan in Dehui County, Julin Province. Through the study, in addition, some technology will be transferred to the Chinese counterparts.

8.DATE OF S/W: 1990/3

9.CONSULTANT(S): NTT International Corporation

10.STUDY TEAM

No.of Members 8

Period Jul.1990-Sep.1991(13 months)

Total M/M	Japan	Field
57.96	23.28	34.68

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	168,499 (¥'000)
Contracted	110,175

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Whole area of Dehui County in Jilin Province (Population 820,000; Area 3,435 sq.km)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	17,500	11,908	5,592
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(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 implemantation 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 first term, subscriber cables for the areas where local government offices are located, buildings, power, exchanges and transmission facilities will be expanded. In second term, subscriber cables for official institutions and hamlets will be installed. Implementation period below is 3 years.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

EIRR1)	8.85	FIRR1)	2.64
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Assumptions:
- Telephone automatization plan is to be completed in 1994 for local telephones and in 1995 for rural telephones.
- The incremental revenues and costs, which are calculated by multiplying the number of pay subscribers with the corresponding charges, between before and after automatizaiton are taken into account.
- Project life is 20 years.

Development Impacts:
- To increase agricultural production by improving the function of conveying information.
- The acquisition of market and commercial information will lead to increase profits and create job opportunities in the district.
- To provide a means of communicaiton in case of emergency, which will minimize damage to be brought about by accidents, disasters, sudden illness, etc.

5.TECHNICAL TRANSFER

- Method of survey and data analysis
- Formulation of automatization plans
- 2 counterparts took a training in Japan

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

On July 1991, the Commitee constructed by 'The Association for the Promotion of International Trade, Japan' visited in China, vice-president of Ministry of Posts and Telecommunication of China and requested promotion of this project.

Chinese Government has not yet requested the implementation of this project to Japanese Government.

(FY1992 Overseas Survey)

A request has been made to the Ministry of Foreign Economic Relations and Trade for the uilization of Japanese Grant Aid and presently in progress toward ratification.

(FY1994 Domestic Survey)(FY1995 Domestic Survey)

No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

Chinese Government hold a lot of projects, therefore implementation of this project has been delayed.

3.PRINCIPAL SOURCE OF INFORMATION

①、②

和名 吉林省徳恵県電話網自動化計画

{F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1994
Revised Mar.1996

ASO CHN/A 202B/92

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
The Integrated Agricultural and Animal Husbandry Development Project in Xiangxi Nanzhi Shanno Area

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Ministry of Agriculture, Hunan province

7.OBJECTIVES OF STUDY
Elaboration of M/P on Integrated Agricultural and Animal Husbandry Development Project in Xiangxi Shinjiazu Miaozu autonomous district.
Elaboration of F/S on priority projects in the model region of approx 5,000ha

8.DATE OF S/W: 1990/11

9.CONSULTANT(S)
Japan Agricultural Land Development Agency

10.STUDY TEAM
No.of Members 12
Period Feb.1991-Jul.1992(17 months)

Total M/M	Japan	Field
88.00	32.00	56.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
LANDSAT image : Processing

12.EXPENDITURE

Total	244,051 (¥'000)
Contracted	210,973

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
M/P Site of area: 202,260 ha of Project area located in the center of mentioned autonomous district.
F/S Model project area: 4,943ha in Changle region Huayaon prefecture

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	76,306	10,961	65,345
	2)	4,349	3,757	592
	3)			

3.CONTENTS OF MAJOR 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, Dranage 562ha, Rural water supply, school, Library, Marketing center, Medical Service and equipment, Rural electrafication
(F/S)
Pasture development 973ha, Farm road development 30.9km, Agricultural instrument introduction 1,882 units. Live stock barn establishment. Livestock introductin, Agricultral and animal Husbandry development center, Sub-secter, Agricultural and rural development (Irrigation 47ha, Rural water supply, School, Library, Marketing center, Rural electrification

Imp. Period: 1993. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	14.20	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
(M/P, F/S)
It is expected that in 2005 net average income will be increased from actual 210 yuan to 400 yuan per farmer as well as food crop production from 253kg to 325 kg per farmer in order to improve percentage of the poor farmers from actual 89.9 to 50.

5.TECHNICAL TRANSFER
Cooperative works for making reports reception of counterport staff into JALDA.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
It is only one year after completion of the study. Accordingly the Chinese Government is considering next step for the excution of the project.

(FY1994 Domestic Survey)
As a project based on this study, the Chinese Government is preparing for the agricultural and animal husbandry developmenn project in the model region (5,000ha), and dispatch of expert.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 湘西南支山脈地区農牧畜業総合開発計画

(M/P+F/S)

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1994
Revised Mar.1996

ASO CHN/A 203B/92

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Liao- Ho Delta Agricultural Resources Integrated Development Project in the Liaoing Sheng

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Water Resources and Electric Power Liaoning Province

7.OBJECTIVES OF STUDY
M/P for the agricultural development and F/S for Bui-Sui-Shi Dam Construction Project and Da-Wa Delta Agricultural Development Project

8.DATE OF S/W 1990/9

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
Hokkaido Engineering Consultants Co., Ltd.

10.STUDY TEAM
No.of Members 18
Period Dec.1990-Jan.1993(25 months)

Total M/M	Japan	Field
116.49	35.94	80.55

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	458,221 (¥'000)
Contracted	419,126

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Liao-Ho Delta, Liaoing Province 1,140,000ha

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	35,200	11,500	19,600
	2)	3,234	3,234	
	3)			

3.CONTENTS OF MAJOR 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) Impovement 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 Agriculutural Development Project. (land reclamation and consolidation for 10,000ha for paddy.)
<F/S>
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 Agriculutural Development Project. (land reclamation and consolidation for 1,000ha for paddy.)

Imp. Period: 1996. -2000.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes/No

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

Conditions and Development Impacts:

(M/P)	IRR (%)
1) Bas-shi Multipurpose Dam Project	14.6
2) De-ling-he Delta Agricultural Development Project	included in 1)
3) Improvement of existing three ponds	20.2
4) Irrigation and drainage development for road fields	21.1
5) Da-Wa Delta Agricultural Development Project	12.2

(F/S)
Bai-Shi Dam Project
Present water shortage in Liao-Ho Delta will de drastically improved and flood damage in the Da-Ling He Delta will much decrease.

Da-Wa Project
Production of 60,000 tons of paddy, which contributes to the self-sufficiency in Liaoning Province is expected.

5.TECHNICAL TRANSFER
Survey, investigation and study method for development planning and evaluation thtrouth on-the-job training

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ○ Implementing
  - ● Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
The Government of China (GOC) has requested technical assistance to GOJ for the hydraulic model test of Bai-Shi Dam, of which construction is scheduled to commence in 1996. GOC expects OECF loan (fourth loan 1996~2000).

(FY1994 Domestic Survey)
Chinese government requested financial assistance for Bai-Shi Dam in forth OECF loan, and technical assistance for hydraulic test of the dam model to JICA. Japanese side is under consideration of this request.

(FY1995 Domestic Survey)
Accepting the Chinese official request, JICA dispatched a contact mission for the cooperation to carry out the hydraulic tests of the Bai-Shi dam model.
Based on the results of discussion made by this mission, it is scheduled to dispatch a S/W mission on September. The construcion of Bai-Shi dam is adopted as one of the 4th Yen Credit Projects.

(FY1995 Overseas Survey)
The breakwater of Liao-Ho-Delta and Ping Yuan Dam have been countructed and the developement of paddy field is carrying on countinuously.
Basic design of Bai-shi Multipurpose Dam was drawn up, and now it is preparing the detailed design for bidding. Water Resources Department of Liaoning Province and JICA signed the agreement to conduct the various experimental survey works for the construction of the Bai-Shi Dam at Da-Ling-He.
Total investment cost for this project will be 1.715 billion yuan (confirmed by the evaluation made in 1994). It will be raised by: 7.915 billion J.yen from 4th yen credit supplied by OECF of Japan, and 1.034 billion yuan of local budget of the government of Liaoning Province.
The tender documents are now on the way to be drawn up. However, major part of the former half (concerning with water, electricity, transportation, communication, building, etc.) is already completed.
Main construction works are planned to be commenced on the later half of 1996, and to be completed on 2001.

2.MAJOR REASONS FOR PRESENT STATUS
Hydraulic model tests has to be executed in order to confirm or improve the design of bottom gates and intake gates in terms of flushing sediments deposited in the reservoir as well as hydraulic condition at the flood time.

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 遼河三角州農業資源総合開発計画

(M/P+F/S)

PROJECT SUMMARY (F/S)

ASO CHN/S 315/92

Compiled Mar.1994
Revised Mar.1996

I. OUTLINE OF STUDY

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 Infrastructu/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Chang Siang Water Resources Development Authority

7.OBJECTIVES OF STUDY
The objective of study is to carry out feasibility study on the flood forecasting and warning system in the middle and lower reaches in the Han Jiang

8.DATE OF S/W 1990/3

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

10.STUDY TEAM

No.of Members 8
Period Jul.1990-Jul.1992(25 months)

Total M/M	Japan	Field
56.33	20.58	35.75

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	218,669 (¥'000)
Contracted	197,801

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Cathement area and river length of Hang Kou:
159,000 sq.km and 1,577 km respectively

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	99,600	8,270	91,330
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

* Proposed project costs are shown in 1,000 yuan instead of US$ 1,000

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

Imp. Period: 1993.4-1994.3

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	13.90	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

1)Economic benefit: decrease of cost for flood fighting work and increase of movable households in flooding areas due to shortening of times for data collection, processing and transmission with higher accuracy.

2)Social impacts: contribution for saving lives in flooding areas, stabilization of social lives, and introduction of new communication and flood forecasting/warning technologies

3)Construction period: 2 years

4)Project life: 15 years

5.TECHNICAL TRANSFER
Counterparts Training in Japan-Holding Seminar
Technical Transfer for Method of Flood Control and Sabo

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

(There has been no information from the executing agency after the completion of the study.)

(FY1994 Domestic Survey)
The chinese government is now taking actions to promote as Japanese grant aid project.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 漢江中下流区間洪水予警報計画

[F/S,D/D]

PROJECT SUMMARY (F/S)

Compiled Mar.1994
Revised Mar.1996

ASO CHN/S 316/92

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Jilin Fengman Dam Rehabilitation Project

3.SECTOR
Social Infrastructu/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Fengman Power Plant, Northeast China Electric Power Administration, Ministry of Energy

7.OBJECTIVES OF STUDY
- To review the safety of the Dam
- To review the Flood Control Volume (Discharge)
- To formulate the Immediate and the Longterm Dam Rehabilitation Plan.

8.DATE OF S/W 1990/10

9.CONSULTANT(S)

10.STUDY TEAM
No.of Members 11
Period Mar.1991-Mar.1993(5 months)

Total M/M	Japan	Field
56.30	22.80	33.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Seismic Tomography Analysis, Upstream surface observation, Core Boring, Compression Test and Bore Hole Observation

12.EXPENDITURE

Total	303,148 (¥'000)
Contracted	242,438

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Fengman Dam, upstream and relevant lower reaches

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	80,835	35,580	45,255
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
<Immediate Measures>
- Grouting
- Pre-stressing work
- Additional drain hole
- Rearrangement of dam observation facility
- Reservoir capacity survey
- water stop measure for upstream surface of dam
- Rehabilitation for penstock
- Dam crest pavement, rehabilitation for gallery & handrails

<Long-term measures>
- Spillway expansion
- Dam stability measures
- Anti-frozen measures of dam

Imp. Period: 1994. -1998.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes/No

EIRR1)	13.70	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
<Impact>
- Contribution to the safety for the steady power supply
- To grevent the damage on Jilin City, farmland along the Songhua River and the bridges by means of flood control

5.TECHNICAL TRANSFER
- On-the-job training and seminar during the field investigation
- Counterpart training in Japan (two counterpart)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [ ] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ○ Implementing
  - ○ Processing
- [■] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
-Inquiry for the project from Fengman Power Plnt on 16, March 1993
-The detailed cost was sent to Fengman Power Plant on 22, March

(FY1994 Domestic Survey)
No additional information.

(FY1995 Domestic Survey)
No progress.

(FY1995 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 to Japan on 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.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 吉林豊満ダム修復強化計画

(F/S,D/D)

PROJECT SUMMARY (M/P)

Compiled Mar.1995
Revised Mar.1996

ASO CHN/S 102/93

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Integrated Regional Development Planning Study on Jiujiang City, Jiangxi Province

3.SECTOR
Development Plan/Integrated Regional Development Plan

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Economic Planning Committee, Jiujiang People's Government, Jiangxi Province

7.OBJECTIVES OF STUDY
Setting masterplan of Jiujiang City. This masterplan consists of four sectors; transport, distribution, tourism and industry. The target year is 2010.

8.DATE OF S/W 1992/4

9.CONSULTANT(S)
International Development Center of Japan
Pacific Consultants International

10.STUDY TEAM

No.of Members 12
Period Sep.1992-Jan.1994(17 months)

Total M/M	Japan	Field
78.10	2.50	75.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE
Total 340,961 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Two Wards (Xunyang Ward and Lushan Ward) in Jiujiang City, Jiangxi Province. Total area is 669 km2.

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	2,010,901		
2)			

3.CONTENTS OF MAJOR PROJECT(S)
This study selected 18 priority projects which are necessary to achieve development goals and strategies and are expected to lead the reform of economic and social structure of Jiujiang City. The selected sectors and projects are as follows.

Industry : 1)Industrial Estate for Small Scale Enterprises Bonded Area Development 2)Baihu Special Area for Industrial Development and Institutional Building to Attract Foreign Enterpreises 3)Jiujiang Technical Center
Tourism : 1)Jiujiang-Lushan Convention City 2)Lushan Resort Development
Distribution : 1)Truck Interchange Terminal 2)Freight Through Transit Terminal 3)Wholesale Estate
Transport : 1)Changjiang River South Bank High Standard Highway 2)Jiujiang City Road 3)Jiujiang New Port 4)Port District Trunk Road
Urban Development and Environment : 1)Sanitary Facilities Improvement 2)Solid Waste Treatment Facilities
Human Resources : 1)Industrial Management Development in Central China 2)Jiujiang University

4.CONDITIONS AND DEVELOPMENT IMPACTS
Most important assumption for the proposals above is that Jiujiang's economy in 2010 will grow as large as 4.3 times in 1990. Its annual growth rate is 7.5%. Implementation of the projects with high priority will lead Jiujiang to a Networking City. Based on interregional function in physical destribution, industrial linkage and human resources exchange, the Networking City can be described as a city to combine regional center function supported by economic development of its hinterland and geteway function of Jiangxi Province.

5.TECHNICAL TRANSFER
1)two seminars on Japan's development experiences and reagional planning scheme during this study. 2)two training programs in Japan. 3)A technology transfer seminar at Nanchang.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Counterpart team is following up the study results.

(FY1995 Domestic Survey)
- On 1994, the Overseas Coastal Development Center had investigated the possibility of materialitation 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, cooperations 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.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 九江市総合開発計画調査

[M/P,Basic Study,Other]

PROJECT SUMMARY (M/P)

Compiled Mar.1995
Revised Mar.1996

ASO CHN/S 101/93

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Water Quality Protection for Poyan Lake in China

3.SECTOR
Administration/Environmental Problems

4.REFERENCE NO.

5.TYPE OF STUDY: M/P

6.COUNTERPART AGENCY
National Environment Protection Bureau

7.OBJECTIVES OF STUDY
Preparation of master plan of water quality conservation for Poyan Lake

8.DATE OF S/W: 1990/4

9.CONSULTANT(S)
Yachiyo Engineering Co., Ltd.
Shin Nihon kisyo kaiyo Co.,Ltd

10.STUDY TEAM

No.of Members 19
Period Mar.1992-Sep.1993(19 months)

Total M/M	Japan	Field
128.13	38.20	89.93

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Landsat Interpretation

12.EXPENDITURE

Total	538,600 (¥'000)
Contracted	406,150

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Poyan Lake and its basin(162,000km2)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	284,000		
2)	623,000		

3.CONTENTS OF MAJOR PROJECT(S)

Plan-A : To maintain present water quality level
(1)Waste water-treatment for large-scale factory (activated sludge process)
(2)Waste water-treatment for small-scale factory (natural settling process)
(3)Improvement of Sewer System (capiltal of city 40% main cities 30%)

Plan-B : To improve up to inter national level
(1)Waste water-treatment for large-scale factory (activated sludge process)
(2)Waste water-treatment for small-scale factory (activated sludge process)
(3)Improvement of Sewer System (capital of city 40% main cities 30%)

4.CONDITIONS AND DEVELOPMENT IMPACTS

1. the target year : A.D.2000
2. Effect of measure
   1) Plan - A
      : To decrease waste road and to maintain present water quality in lake (Shintsu-Point / COD:3.2mg/l)
   2) Plan - B
      : To decrease waste road and to improve water quality up to international level (Shintsu-Point / COD:3.2mg/l)

5.TECHNICAL TRANSFER
Water quality simulation using somputer model

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Local government is taking, using national budget, to accomplish the Plan-A proposed by the study team.

(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
Followings are planned in addition to the existing measurements and going to be in the designing stage.
- Bridge construction at the exit of Poyan Lake to Yangtze Kiang.
- Dam construction accross the Poyan Lake near to Sun-Men-Siang.

The former data concerning the contamination from small-scale factories seem to be insufficient. It will be necessary to investigate again.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 は陽湖水質保護対策計画調査

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1995
Revised Mar.1996

ASO CHN/S 202/93

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Waigaochao District in Pudong New Economic Zone in Shanghai

3.SECTOR: Social Infrastructu/Urben Planning & Land Development

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY: Shanghai Urban Planning and Design Institute

7.OBJECTIVES OF STUDY:
To formulate master plan for Waigaochao district with the target year of 2000 and 2020.

8.DATE OF S/W: 1991/6

9.CONSULTANT(S):
Pacific Consultants International
ALMEC Corporation
Overseas Coastal Area Development Institute

10.STUDY TEAM

No.of Members 14
Period Jul.1992-Oct.1993(16 months)

Total M/M	Japan	Field
76.38	30.88	45.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Manufacturing Firm Questionnaire Survey

12.EXPENDITURE

Total	304,473 (¥'000)
Contracted	279,165

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Waigaochao District in Pudong New Economic Zone in Shanghai

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost
M/P	1)		
	2)		
F/S	1)	750,000	
	2)	325,000	
	3)	1,350,000	

3.CONTENTS OF MAJOR PROJECT(S)

1) Ports Development
Containarization of existing 2 berthes, new ports, ship building
2) Industrial Development
Freetrade Zone development
3) Urban Development
loop road, arterial road natwork, LRT, residential area development, town center, urban utilities development

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes/No

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

Conditions and Development Impacts:

5.TECHNICAL TRANSFER
Receipt of Trainees
Holding seminar

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
1. 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.
2. The LRT recommended in the study is forwarded to next step of the study by Shaghai itself.

(FY1995 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 which connects the port and each development areas and the Yang-Gao great bridge 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.

(FY1995 Overseas Survey)
The findings of this study have been well utilized in order to formulate the development projects.F/S and D/D have been conducted for some of those projects such as Pudong International Airport, 2nd stage construction in Waigaochao Distinct and Pudong Rail Traffic.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 上海市浦東新区外高橋地区開発計画調査

{M/P+F/S}

PROJECT SUMMARY (F/S)

Compiled Mar.1995
Revised Mar.1996

ASO CHN/A 309/93

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Facilities Improvement Project in Second Irrigation Section in Qianguo Area in Jilin Province

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Committee of Science & Technology, Ministry of Water Resouses in Julin Pro.

7.OBJECTIVES OF STUDY
Feasibility-Study of the Improvement of Irrigation Facilities in Second Irrigation Section Located at the left Bank of Second Shokako in Julin Province

8.DATE OF S/W 1991/10

9.CONSULTANT(S)
Taiyo Consultants Co., Ltd.
Nippon Giken Inc.

10.STUDY TEAM
No.of Members 11
Period Feb.1991-Mar.1993(25 months)

Total M/M	Japan	Field
77.08	45.00	32.08

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	323,586 (¥'000)
Contracted	302,601

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Second Irrigation Section in Qianguo Area in Jilin Province
Area : 37,200ha, Population : 51,575(1990)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	69,538	39,853	29,685
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1.Improvement of the New Second Pumping Station and Water Facilities
2.Constructio of Fish Farm
3.Land Consalidation
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 :

Imp. Period: 1996.1-2001.12

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	13.60	FIRR1)	
EIRR2)	15.80	FIRR2)	
EIRR3)	17.20	FIRR3)	

Conditions and Development Impacts:
Conditions ;
1)30 percent increase in expenditure
2)10 percent decrease in benefits of increased agricultural producrtion(due to fluctuations in prices or amount of harvest)
3)1 year extension of construction period for the New Second Pumping Station (due to uncertainty of the conditions of execution of the work)
4)Occurrences of both 1) and 2)

It is anticipated that in any cases Economic Internal Rate of Return is higher than opportunity cost of capital, and these four conditions would not influence the economic feasibility of the project.(discount rate : 12%)

5.TECHNICAL TRANSFER
Technical exchange of irrigation and drainage was carried out. Seminer on technical transfer was held at an explanatory meeting of Draft-Final Report.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)

This project is referred to the Eighth Five-Years Plan in Julin Province. Chinese government has been constructiong the Chimonto drainage station and the canals along it which are the main dranage facilities in the study area. The drainage station is expected to complete in 1994.

With regard to the First, Second, and Third Irrigation Sections, Chinese government was carried out the construction of tailed canals based on the Five-Years Plan.

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 diversed at 48t per second from the Second Shokako which is water resouses, main canals, and Water Management Facilities along the pumping station. Under these circumstances, the Ministry of Water Resouses In china has requested the grant aid of Japan.(1994.5)

(FY1995 Domestic Survey)
The official request for the grant aid has been sutmitted to the Ministry of Foreign Economic Relations and Trade by the Jilin Provincial Foreign Economic Cooperation Bureau.

(FY1995 Overseas Survey)
At present, a part of construction works is carrying on by means of the local fund financed by the Government of China. The Government is negotiating about the financing with the Government of Japan. The preparatory works are implementing as planned in due course. It is planned to commence the construction works in full scale on 2001 and to be completed on 2001.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、⑤ (the Japanese Embassy in China)

和名 吉林省前郭地区第二灌溉区施設整備計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1995
Revised Mar.1996

ASO CHN/S 301/93

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Rapid Guided Transport System Planning in Chongqing

3.SECTOR: Transportation/Railway

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Science and Technology Commission of Chongqing Municipality

7.OBJECTIVES OF STUDY: Feasibility study on urban guided transport system planning in Chongqing

8.DATE OF S/W: 1992/6

9.CONSULTANT(S)
Japan Railway Technical Service
Pacific Consultants International

10.STUDY TEAM
No.of Members 16
Period Dec.1992-Jan.1994(14 months)

Total M/M	Japan	Field
64.78	32.51	32.27

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	238,161 (¥'000)
Contracted	226,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Chongqing City : area 120km
Population 2,100,000(year 1990)

2.PROJECT COST
(US$1,000)
1yuan=22yen 1us$=126yen

	Total Cost	Local Cost	Foreign Cost
1)	400,214	141,334	258,880
2)			
3)			

3.CONTENTS OF MAJOR 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 stuructures : 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)

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)

Imp. Period: 1996. -2010.

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	12.23	FIRR1)	3.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions and Development Impacts :
The introduction of the guided transport system will serve for the alleviation of east-west traffic congestion in the city center of Chongqing.
This project will also contribute to the development of sound social and economic activities in the entire Chongqing City by realizing efficent transport and coping with the large tranport demand arising in the city center, Down town, Da ping area, Yang jia ping area,Da du kou area, etc.

5.TECHNICAL TRANSFER
1)Site survey : ecomonic and financial analysis,train operation and rolling stock planning,facilities planning, electric system, etc.
2)C/P training(one person):demand forecast and economic analysis.(June,1993)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS
■ Completed or in Progress
○ Completed
○ Partially Completed
○ Implementing
● Processing
[ ] Promoting
[ ] Delayed or Suspended
[ ] Discontinued or Cancelled

(Description)

(FY1994 Domestic Survey)
Chongqing city requested the Japanese Government to provide financial assistance in order to realize the project. At present, the Japanese Government is studying the request.

(FY1994 Overseas Survey)
This project was decided to be nominated as a first half plan (1996-2000) of the 4th OECF loan for China (1996-1998) according to the information in Dec. 1994.

(FY1995 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.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③

和名 重慶市快速軌道交通計画調査

(F/S,D/D)

PROJECT SUMMARY (M/P+F/S)

Compiled Sep.1995
Revised Mar.1996

ASO CHN/A 204/94

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Integrated Agriculture Development Project in Heilongjiang

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
General Department of Heilongjiang National Firm

7.OBJECTIVES OF STUDY
Formulation of the basic plan on agricultural development as a part of the integrated plan.
Selection of a model area and conducting Feasibility study.

8.DATE OF S/W 1992/9

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
Hokkaido Engineering Consultants Co., Ltd.

10.STUDY TEAM
No.of Members 14
Period Jul.1993-Nov.1994(17 months)

Total M/M	Japan	Field
84.71	54.87	29.84

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE
Total 325,420 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Nonjiang National Firm (54,000ha) and Yoyi National Firm (189,000ha) in Heilongjiang Development Area

2.PROJECT COST (US$1,000)

M/P	1)	150,480 Local	90,288 Foreign	60,192
	2)	786,972 Cost	472,183 Cost	314,789
F/S	1)	48,032	19,693	28,339
	2)	85,795	49,761	36,034
	3)			

3.CONTENTS OF MAJOR 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 equipmemt: 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.

Imp. Period: 1996. -2010. 1996. -2010.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes/No

EIRR1)	11.10	FIRR1)	11.40
EIRR2)	13.50	FIRR2)	12.70
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Conditions]
EIRR calculated with rural infrastructure as for the foundations of life. however, in case of FIRR this is not included but only with the investment for the living.

[Development Impacts]
By means of the development of two models it will be clearly indicated the way of development of another 102 firms in Heilonjiang. Life will become more convenient. Revenue will be increased with more employment opportunities. Besides the quality of services of laborers will be improved.
The control system of waste water and materials will be improved by the well-prepared basements for the life and agricultural works. As a result environment also becomes better.

5.TECHNICAL TRANSFER
Seminar for the governmental officers concerned on the occasion of explanation of the draft final report.
Technical training of 3 Counterparts in Japan

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
Chinese side has requested the 4th Yen Credit for the development plan of 40 National Farms in Heilongjiang which was formulated based on this study results.
OECF picked up two farms out of 40 as a model and is going to dispatch a survey team to confirm and examine the contents of the project considering their development plan.

2.MAJOR REASONS FOR PRESENT STATUS
Necessary to confirm the contents of the request made by the Chinese side since the actual situation of 40 farms are not clear in detail.

3.PRINCIPAL SOURCE OF INFORMATION
①、④

和名 黒龍江省国営農場典型区農業総合開発計画

(M/P+F/S)

PROJECT SUMMARY (M/P+F/S)

ASO CHN/S 203/94

Compiled Sep.1995
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY:
Primary Road Network Development Study in Zhe-jiang Province

3.SECTOR:
Transportation/Road

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY:
Ministry of Transportation, Zhe-jiang Province

7.OBJECTIVES OF STUDY:
Master Plan for the network of trunk road and Feasibility Study for the routes with higher priority.

8.DATE OF S/W: 1992/2

9.CONSULTANT(S):
Katahira & Engineers International
Nippon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 32

Period Aug.1992-Jul.1994(24 months)

Total M/M	Japan	Field
100.26	10.51	100.26

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total: 389,814 (¥'000)

Contracted:

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
M/P:Whole area of Zhe-jiang Province
F/S:Hang-zhou City and Qu-zhou City

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	542,610	338,686	203,924
	2)			
	3)			

3.CONTENTS OF MAJOR 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 abovementioned motorway will be renovated with the first priority.
3) Extension of the road will be a lengh 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 sevice 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 Nationl highway.

Imp. Period: 1996. -2005.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	35.50	FIRR1)	7.60
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
1) Make a grat leap forward for rural industries and increase the employment chance.
2) Requirement of various construction materials will give rise to local material production and create new jobs for the workers.
3) Expansion of the marketing area for agricultural/marine products caused by the improvement of transportation.
4) Material flow in between inland and coastal cities such as Hong-zhou and Wen-zhou will become more smooth and fast to make wider marketing area.
5) Promotion of tourist industry.

5.TECHNICAL TRANSFER

1)Held the seminar at the workshop.
2)Work together with counterparts.
3)Provide the boring machines and surveying equipment.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
No information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 浙江省幹線道路網計画調査

{M/P+F/S}

PROJECT SUMMARY (F/S)

Compiled Sep.1995
Revised Mar.1996

ASO CHN/A 310/94

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Improvement Project of Drainage System in Qixing-Polder, Shunde City, Guangdong Province

3.SECTOR
Agriculture/Irrigation, Drainage & Reclamation

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Water Conservancy and Power Department of Guangdong Province

7.OBJECTIVES OF STUDY
Planning on drainage system and development in rural agricultural area

8.DATE OF S/W: 1993/8

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

10.STUDY TEAM

No.of Members 11
Period Feb.1994-Mar.1995(14 months)

Total M/M	Japan	Field
48.90	18.57	30.33

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	194,818 (¥'000)
Contracted	194,352

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Qixing-Polder, Shunde City, Guangdong Province

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	142,317	126,316	16,001
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Drainage Plan in rural agricultural area :

1)New establishment and renewal of drainage pump station	4 places
2)Maintenance of inland river flow	43.9km
3)Repair of lock gates	8
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	9
2)Reinforcement of river bank	52.4km
3)Arrangement of the fish pond	2,000ha
4)facilities for aquaculture	1 set

Imp. Period: 1996. -2003. 2003. -2010.

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes/No

EIRR1)	21.31	FIRR1)	23.49
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

(Conditions]
Durability of facilities : 50 years

[Development Impacts]
1)Reduce the damage by flood.
2)Reduce the budget amount for counter measures against the disaster caused by flood.
3)Increase of agricultural production.
4)Increase of aquacultural production.

5.TECHNICAL TRANSFER
1)Technical transfer to counterparts during the study period.
2)Training for two engineers in Japan by JICA.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ● Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
As new establishment of Tong-Hai drainage pump station, a part of the drainage plan in rural agricultural area, phase I of this project, is necessary in very urgent, Chinese side has been commenced the job by its own budget since April, 1995. The measures are taken for remained part of the project to request for Japanese Governmental loan, and the application has been submitted to the State Planning Committee on July, 1995.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 広東省順徳市斎杏中地区農村地域排水計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Aug.1995
Revised Mar.1996

ASO CHN/S 317/94

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: West-bound Trunk Road Construction Project in Municipality of Xiamen

3.SECTOR: Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Transportation Bureau, Amoy City

7.OBJECTIVES OF STUDY:
The Feasibility Study on the construction of west bound Trunk Road, one of the Road Network of Xiamen City, which will support the Development Plan of Hai-Tsang Area.

8.DATE OF S/W: /

9.CONSULTANT(S):
Pacific Consultants International

10.STUDY TEAM

No.of Members 10

Period Mar.1993-Jul.1994(14 months)

Total M/M	Japan	Field
40.93	28.57	12.36

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	131,261 (¥'000)
Contracted	130,575

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Xiamen (Amoy) City and sorrounding area

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	25,900	13,300	12,600
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1)Construction of a suspension bridge with a total length of 1,090m and a length of central span of 650m.
2)Construction of a Prestressed Concrete Box Girder Bridge with a length of 340m over the sub sea route.
3)Construction of an approaching overhead bridge with a length of 2,215m.
4)Construction of an approaching road with a distance of 2,415m.
5)Others (Construction of Tall Gates, Approaching Ramps, etc.)

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes/No

EIRR1)	19.90	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
1) Increasing Rate of transportation between Main-land and Amoy Island (1992-2020) is 8.9% per annum in average.
2) Economical Growth of Amoy City
Population : 1.106 million (1990) to 1.726 million (2020)
Annual Rate of Economical Growth (in GNP) :
14.3% (2020/1990)
10.7% (2010/2000)
6.1% (2020/2010)
3) Effects of Development :
Promotion of Industrial Development at Hai-Tsang Area and promotion of Improvement of Road Network of Amoy City.

5.TECHNICAL TRANSFER:

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
After the Feasibility Study of JICA, additional technical investigation had been implemented by Chinese Side. Based on the results of these studies, the application for the permission to commence the construction works was submitted to the Central Governmental Authorities concerned. It is expected to commence the actual construction until the end of this year. Financing has become available by means of investment from Amoy City, subsidy of the Central Government and finance from domestic banks for the portion of domestic currency, however, for the portion of foreign currency, the financial resources are not decided yet. Japan Export and Import Bank is considered as one of the financial resources.

(FY1995 Overseas Survey)
In order to commence the construction works on June, 1995 and to complete on Dec.1999, the local fund with an amount of 1.5 billion Yuan has already been financed, however, the foreign fund with an amount of 1.26 billion Yuan (equivalent to 0.15 billion USD) in not available as yet.

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION
①、②厦門市路橋建設投資総公司

和名 厦門市西通道建設計画調査

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO IND/S 302/87

I. OUTLINE OF STUDY

1.COUNTRY: India

2.NAME OF STUDY: Modernization of Rolling Stock Workshop

3.SECTOR: Transportation/Railway

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Indian Railway Board

7.OBJECTIVES OF STUDY:
F/S for modernization of two conventional workshops for rolling stock as part of the modernization of the Indian Railways

8.DATE OF S/W: 1986/10

9.CONSULTANT(S):
Japan Railway Technical Service
Pacific Consultants International

10.STUDY TEAM

No.of Members 14

Period Feb.1987-Jan.1988(12 months)

Total M/M	Japan	Field
67.26	43.56	23.70

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
None

12.EXPENDITURE

Total	192,044 (¥'000)
Contracted	185,418

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Jamalpur Workshop (Eastern Railway), Perambur Workshop (Southern Railway)

2.PROJECT COST (US$1,000) (US$1=12.87Rp)

	Total Cost	Local Cost	Foreign Cost
1)	87,000	64,100	22,900
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1.Workshop modernization
1)Shortening of period of POH(periodical overhaul) of rolling stock,and strengthening of inspection/repair capacities; 2)Improvement of operation efficiency of rolling stock,and reduction of POH costs; 3)Introduction of new technology for rolling stock inspection and repair; 4)Development of skills of personnel by training and education; 5)Introduction of testing equipment for improving quality and reliability of rolling stock
2.Plan of strengthening inspection/repair capacities, and scale of investment.
1)Jamalpur Workshop:Project cost,481 million Rs.
Building construction---Engine test room,car maintenance room,training center
Building reconstruction---Steam-locomotive part shop,casting shop
Machine installation---Testing equipment for engine and generator; commutator grooving equipment; bogie washer; brake-shoe casting equipment; others
Machine replacement---Wheel lathe, etc.
Others---Maintenance of passage,floor surface,track,etc.
2)Perambur Workshop: Project cost,639 million Rs.
Building construction---Passenger-car body shop,freight-car painting shop,others
Building reconstruction---Freight-car inspection/repair shop,etc.

Imp. Period: 1989. -1994. 1989. -1996.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	21.00	FIRR1)	17.00
EIRR2)	18.00	FIRR2)	16.00
EIRR3)		FIRR3)	

Conditions and Development Impacts:
1)Improvement in level of service quality
2)Decrease in failure of rolling stock and resultant increase in availability of rolling stock.
3)High quality rolling stock will increase the effect of investments in railway ground installations and rolling stock.
4)Impetus for moderinization of other workshops.
5)Increase in employment oppotunities in project areas.
6)Overall decrease in rolling stock maintenance costs for the Indian Railway.
7)Improvement in maintenance technology at the workshops.
8)Ipetus for development of local idustries and their technological levels through introduction of new plants and machinery.
9)Improvement in worker's motination and work safety.

5.TECHNICAL TRANSFER:
OJT : Lecture were given on methods to guide workshop personnel in promoting the modernization project.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [ ] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ○ Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [x] Discontinued or Cancelled

(Description)

The project was incorporated in the 8th Long-term Plan.
Mar.1990 OECF loan agreement signed (1,256 million yen) For the provision of equipment for Jamalpur and Perambur Workshops
Aug.1990 The Indian Railway requested JARTS to submit a proposal as the sole consultant of the consultant service agreement.
Oct.1990 JARTS submitted the proposal.
Jan.1993 An agreement was reached on the contents of services and the amount of costs. Signing of the contract is yet to be made, pending the approval by the Indian side.

(FY1994 Domestic Survey)
The Ministry of Finance, of India Government has sent official letter to New Dehli office of OECF on Aug.1994 saying that the loan amount for the project has remained unutilized because of non-conclusion of consultancy agreement between the Indian project executing agency and the Japanese consulting firm for various reassons. Indian Government, therefore, decided to terminate the loan agreement, and asked for the agreement of OECF for the termination.
Following the above request, OECF HDQ is taking contact with concerned Ministries of Japanese Government to terminate the loan.

(FY1994 Overseas Survey)
L/A of OECF loan was concluded in March 1990, but abrogated in June 1994. The reason was that, though consulting concerning detailed design (JARTS), proposals of the Ministry of Railways and negotiation for contracts started in October 1990, no conclusion was made even spending a long time. It have been difficult for the ministry to make a conclusion because they had been seeking for possibility to privatize train production and railway management, keeping accordance with the Indian government's grand policy of privatization since 1991.

2.MAJOR REASONS FOR PRESENT STATUS

Improvement has already been made in some workshops. This project will be materialized on the basis of comprehensive studies covering improvement plans for all workshops.

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③、④

(F/S,D/D)

和名 鉄道車両工場近代化計画

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO IND/S 301/87

I. OUTLINE OF STUDY

1.COUNTRY India

2.NAME OF STUDY
Railway Improvement Plan of Transport Capacity and Train Speed on the Delhi-Kampur Section

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Indian Railway Board

7.OBJECTIVES OF STUDY
F/S for facility planning for transport capacity strengthening and train speed increses on a conventional trunk line, and a basic study on constructing a new high-speed line

8.DATE OF S/W 1986/10

9.CONSULTANT(S)
Japan Railway Technical Service
Tonichi Engineering Consultants, Inc.
Yachiyo Engineering Co., Ltd.
The Japan Electrical Consulting Co., Ltd.

10.STUDY TEAM
No.of Members 17
Period Feb.1987-Jan.1988(12 months)

Total M/M	Japan	Field
93.41	55.66	37.75

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
traffic data collection.

12.EXPENDITURE

Total	267,615	(¥'000)
Contracted	257,220	

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Between Delhi and Kampur, northwestern India

2.PROJECT COST
(US$1,000)
(US$1=12.87Rp)

	Total Cost	Local Cost	Foreign Cost
1)	1,677,000	1,440,000	237,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
I. Conventional line improvement by 1991: max. speed 160km/h, Ghaziabad-Kanpur
1. Track & structures:1) Imprv.of transition curves;2) Imprv.of 333 turnouts on main tracks; 3) Construction of passing tracks that do not border on platforms (Aligarh & Etawah stations); 4) Construction of one platform and two departure-arrival tracks,in Kampur station; 5) Imprv. of 187 turnouts and track layout(Ghaziabad, Tundla & Juhi marshalling yards); 6) Remodeling of No. 304 bridge and Hathras overbridge
2. Rolling stock: Imprv. of high-speed running performance and brake perfomance of electric locomotives, passenger cars, and freight cars
3. Signals and telecommunications: Signal automation, electronic interlocking, auto- matic control of levelcrossing facilities, and introduction of ATS (automatic train stop) and CTC (centralized train control) systems
4. Electrification: Partial modification of the contact-wire structure
II. High-speed railway construction by 2000: max. speed 250km/h, Delhi-Agra-Kanpur
1. Terminals: New Delhi, New Agra, and New Kanpur
2. Track and structures: Embankment section 412km; viaduct section 17km; sections jointly used by the conventional railway 21km.
3. Rolling Stock: A super express train of 6 motored cars and 10 trailers
4. Signals and telecommunications: Automatic train control(ATC) system,

Imp. Period: 1989. -1990. 1990. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	42.62	FIRR1)	25.79
EIRR2)	36.08	FIRR2)	18.00
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Preconditions for calculating IRRs:
Transport demand was estimated for the years 1995, 2000, 2005, 2010, and 2015 for the two cases of conventional line improvement and new high-speed line construction.
Economic and financial evaluation was carried out for the cases of conventional line improvement, new high-speed line construction, and a combination of both.

Development impacts:
1) Increase in transport capacity
2) Reduction in travel time
3) Alleviation of public nuisances due to road transport and a reduction in accidents
4) Development of cities along the railway route
5) Development of related industries

5.TECHNICAL TRANSFER
1)OJT: Movies on Shinkansen and conventional line improvement.
2)Utilization of a local consultant as an assistant in traffic data collection.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The study recommended that the conventional line improvement be carried out including the section between Kampur and Calcutta, and that the construction of a high-speed line, which is in the pre-F/S stage, be studied in phases. Based on the recommendations, the Ministry of Railway requested a JICA feasibility study on the improvement around the New Delhi Station ("Development Plan for the New Delhi Station," completed in 1990). The Indian Railway Board is studying the improvement of Kampur - Calcutta Section, utilizing the method employed by this study.
Conventional line improvement is partially under way.

(FY1991 Overseas Survey)
Indian Railway Board hopes to implement the project, but has no definite schedule.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas survey)
Even though a new express, whose highest speed is 250km/h, plan will be necessary for the Indian Ministry of Transportation in the future, it is not planned at present. Based upon the plan which enables existing express service to realize the highest speed of 160km/h, improvement of the whole section between Delhi and Calcutta is implementing. Since preparation of electric locomotives and arrangement of tracks or singals are almost completed with few exceptions, the new railway service will be started in June 1995. The frequency of service is scheduled as once a day in the beginning.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
It is effective to implement the improvement of the object sections jointly with the work for the adjacent sections. Therefore the Indian Railway is studying this issue.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 デリー～カンプール間幹線鉄道改良計画

[F/S,D/D]

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1991
Revised Mar.1996

ASO IND/S 201B/89

I. OUTLINE OF STUDY

1.COUNTRY India

2.NAME OF STUDY
Development of Calcutta and Haldia Dock Systems of Calcutta Port Trust

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
The coordination committee Government of India (Ministry of Surface Transport, Port Department)

7.OBJECTIVES OF STUDY
To prepare a Master Plan up to the year 2005.
To prepare a Short-Term Development plan up to the year 1995.

8.DATE OF S/W 1987/12

9.CONSULTANT(S)
Overseas Coastal Area Development Institute

10.STUDY TEAM

No.of Members	13	
Period	May.1988-Oct.1989(17 months)	
Total M/M	Japan	Field
142.26	72.09	70.17

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Soil investigation Sounding

12.EXPENDITURE

Total	276,611 (¥'000)
Contracted	280,277

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Calcutta and Haldia

2.PROJECT COST (US$1,000) US$1=Rs13.50=135yen

M/P	1)	583,792	Local Cost	343,733 Foreign Cost	240,059
	2)				
F/S	1)	243,874		137,430	106,444
	2)				
	3)				

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>
Master Plan with the target year of 2005.
1.Functional Allocation
The container traffic allocation between Calcutta and Haldia
2.Effective land use of Calcutta Port Trust
3.Improvement of Transportation Facilities
1) Construction of Bridge
2) Constructon of handling place for railway cargo
4.Improvement of Navigation Aid System

<F/S>
Short-Term Plan with the target year to 1995

(1) Calcutta	(2) Haldia
- Port road	- Container berth
- Railway	- Multi-Purpose berth
- Rehabilitation of port facilities	- Yard
- CFS	- Railway
- Dredging	- Cargo handling equipment
- Cargo handling equipment	- Port Service vessels
- Port Service vessels	

Imp. Period: 1990. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	17.13	FIRR1)	12.14
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

<M/P>
Demand Forecast (unit: 1,000t)

Lignid Bulk Cargo	2,495
Dry Bulk Cargo	1,070
Container Cargo	2,235

<F/S>
Demand forecast
Calcutt Haldia Port (unit: 1,000t)

Liquid Bulk Cargo	1,210
Dry Bulk Cargo	610
Container Cargo	1,110
Other General Cargo	2,210

5.TECHNICAL TRANSFER
Through discussion with counterpart, we conducted technical transfer by transmitting our idea of the study and the study method and so on.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS
- [■] Completed or in Progress
- [ ] Promoting
- ○ Completed
- ◉ Partially Completed
- [ ] Delayed or Suspended
- ○ Implementing
- ○ Processing
- [ ] Discontinued or Cancelled

(Description)
(FY1991 Overseas Survey)
<M/P>The project was scaled down and modified. This Master Plan is used as the guideline of the long-term development of the port.
The following projects for Calcutta Port was conducted:
1. Modernization of KPD water gate
Apr. - Aug. 1991 D/D
Nov. 1991 - 1993 The construction by local contractor using local finance
2. Modernization of NSD water gate
3. The replacement of Tug Cuameli
Apr. - Jun. 1990 D/D
Sept. 1990 - Jan. 1992 Implementation
4. Hardstanding of yards for storage of heavy/normal cargo
Dec. 1990 - 1993 Implementation
5. Rehabilitation of transit sheds
6. Replacement of mobile cranes
Jul. 1990 - 1992 Implementation
<F/S>The following Feasibility Studies were conducted using local funds:
1. Calcutta Port
1) Development of 4-lane bridge (Apr. 1990 - Aug. 1991)
2) Channel navigation/VIMS project (Jan. 1990 - Aug. 1991)
3) Replacement of Floating Crane (Feb. 1990 - Aug. 1991)
2. Haldia Port
1) Replacement of dredger (Mar. 1990 - Aug. 1991)
2) Procurement of Grab Dredger (Mar. 1990 - Aug. 1991)
Due to the decrease of the cargo destined for former USSR countries, and the little need to invest in the new port (Haldia) by port users, implementation of the project is not expected at this moment.

(FY1993 Overseas Survey)
Improvement of Roads in and around Dock area, replacement of loading facilities and replacement of port service vessels have been partially completed. Remainder Works are now implementing.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
(Calcutta port)
Port road: partially finished
Port railway: (partially finished)
Improvement of port facilities: (partially finished)
Container freight station (CFS), loading/discharging

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①, ②, ③

和名 カルカッタ・ハルディア港開発計画

Continued on (M/P+F/S)

状況（要約表添付文書）

ASO IND/S 201B/89 (M/P+F/S)

Name of Study: Development of Calcutta and Haldia Dock Systems of Calcutta Port Trust

Country: India

Type of Study: M/P+F/S

Sector: Transportation/Port

Present Status: Partially Completed

(Description)

(FY1991 Overseas Survey)
<M/P>The project was scaled down and modified. This Master Plan is used as the guideline of the long-term development of the port.
The following projects for Calcutta Port was conducted:

1. Modernization of KPD water gate
   Apr. - Aug. 1991 D/D
   Nov. 1991 - 1993 The construction by local contractor using local finance
2. Modernization of NSD water gate
3. The replacement of Tug Cuameli
   Apr. - Jun. 1990 D/D
   Sept. 1990 - Jan. 1992 Implementation
4. Hardstanding of yards for storage of heavy/normal cargo
   Dec. 1990 - 1993 Implementation
5. Rehabilitation of transit sheds
6. Replacement of mobile cranes
   Jul. 1990 - 1992 Implementation

<F/S>The following Feasibility Studies were conducted using local funds.

1. Calcutta Port
   1) Development of 4-lane bridge (Apr. 1990 - Aug. 1991)
   2) Channel navigation/VIMS project (Jan. 1990 - Aug. 1991)
   3) Replacement of Floating Crane (Feb. 1990 - Aug. 1991)
2. Halida Port
   1) Replacement of dredger (Mar. 1990 - Aug. 1991)
   2) Procurement of Grab Dredger (Mar. 1990 - Aug. 1991)

Due to the decrease of the cargo destined for former USSR countries, and the little need to invest in the new port (Haldia) by port users, implementation of the project is not expected at this moment.

(FY1993 Overseas Survey)
Improvement of Roads in and around Dock area, replacement of loading facilities and replacement of port service vessels have been partially completed. Remainder Works are now implementing.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
(Calcutta port)
Port road: partially finished
Port railway: (partially finished)
Improvement of port facilities: (partially finished)
Container freight station (CFS), loading/discharging machines:(partially finished)
Development of the container park is partially finished by ADB loans. Container cargo operation is controlled by computers.
(Haldia port)
Container berth: general freight berth - finished
multi-purpose berth - under construction
Yard: partially finished
Port railway: under construction
Dredging: untouched (due to the lack of fund)
Loading/discharging machines: partially finished
Almost all the fund was domestically financed (by governmental budget, internal reserve, or loans). Foreign fund, that was allocated to the container park at Calcutta, was financed by the ADB loan.
JICA F/S re-categorized the improvement of pilot systems into short-term action items (previously long-term objectives). It is for the purpose of cost reduction and improving CPT's financial status by raising working ratio of pilots and maintaining working circumstances.

(FY1995 Overseas Survey) No additional information.

PROJECT SUMMARY (F/S)

Compiled Mar.1991
Revised Mar.1996

ASO IND/S 303/89

I. OUTLINE OF STUDY

1.COUNTRY India

2.NAME OF STUDY
Development Plan for the New Delhi Railway Station

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Northern Railway

7.OBJECTIVES OF STUDY
To formulate a Master Plan for the modernization of railway teminal in Delhi area; and to conduct a feasibility study for the modernization plan on New Delhi Railway Station

8.DATE OF S/W 1988/4

9.CONSULTANT(S)
Japan Railway Technical Service
Tonichi Engineering Consultants, Inc.

10.STUDY TEAM
No.of Members 13
Period Nov.1988-Jan.1990(11.5 months)

Total M/M	Japan	Field
	30.18	35.55

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	216,046 (¥'000)
Contracted	186,641

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
200 kilometers around New Delhi

2.PROJECT COST (US$1,000)
US$1=17.75Rs

	Total Cost	Local Cost	Foreign Cost
1)	94,727,000	83,544,000	11,183,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- Target year: 2010, 1st half period (from present to 2000), latter half period (from 2000 to 2010)
- Track improvement plans: 1st half period --- track addition, electrification, and signal modernization for 6 lines(718.6km) and improvement of bottlenecks in Delhi (grade separation); Latter half period --- track addition, electrification, and signal modernization for 8 lines(730.6km) and improvement of bottlenecks in Delhi (grade separation)
- Improvement of New Delhi station
1. Station improvement 1)Track layout 2)Reconstruction of main structures
3)Related facilities (water supply and drainage, car cleaning, and electric facilities)
2. Passenger facilities (facilities that serve for smooth passenger flow; passenger service facilities; station offices; others) 1) Station office improvement (construction of station offices in the eastern entrance, reconstruction in the western entrance)
2) Auxiliary facilities -Mechanical facilities: escalators, baggage lifts, air-conditioning facilities; -electric facilities: substations, power lines and related facilities, lighting facilities) 3)Station plaza development
3. Passenger information and guidance systems.
4. Telecommunicaions facilities.

Imp. Period: 1991. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	19.50	FIRR1)	12.13
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Preconditions: 1.Economic prices 1)Domestic materials are evaluated by the economic prices obtained by deducting domestic consumption and sales taxes (20%, 7%)from market prices.
2)Imported materials are evaluated by the total of CIF prices and domestic transport and distribution costs. 3)Labor costs are evaluated by annual incomes of standard workers.
4)Exchange rate --- Daily median value average for August 1989.
2.Inflation: Inflation is not considered. 3.Project life: 31 years from 1990 to 2020.
4.Reinvestment and depreciation: It is assumed that, for the depreciable assets whose service life expires within the project life, reinvestment of the initial amount is conducted in the following year. 5. Residual value: the residual value of the depreciable assets as of the last year of the project is earmarked as benefit.
6. Economic growth rate: 5% up to the year 2010, 4% after 2010.
Development Impacts: Implementation of this project would greatly contribute to the vitalization of economy in the New Delhi Metropolitan Area through improvement of transport efficiency and elevation of service level.

5.TECHNICAL TRANSFER
1) During site investigations, techinical trasfer was made in such respects as
planning and construction methods.
2) One counterpart received JICA training.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ● Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
In the Works Programme of the Indian Railway for FY1991, Rs.500 million was earmarked for the work for 3 to 4 years. Station yard improvements and so on are partially under way by the Indian Railway and local contractors.
It is uncertain whether the request will be made for further Japanese cooperation in the course of the project implementation in the future.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
1) Development of the New Delhi Station
As the phase I construction, extension of pedestrian bridges(2), construction of platforms (2) with transfer of lines for train wash and repair, constructions of lines for train wash (2), repair (5) and storage (2), maintenance of parking for buses and taxis at the east entrance of the station have been completed by the budget of the Indian Ministry of Railways (Rs. 60 million) since April 1993.
As the phase II construction, building of new platforms (2), etc. will be completed from June 1995.

2) Railway track improvement project in New Delhi
Construction completed until present are as follows: double tracking, advancement of signal systems, electrification, building of new stations (land purchase only). It can be found that the Ministry of Railways gives priority to each project according to JICA F/S and tries to realize one by one keeping budget constraint. Neither building of a new line (bypass) nor automation of signal systems is planned.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
The Indian side can deal with many parts of the project in respect of technology and finance.

3.PRINCIPAL SOURCE OF INFORMATION
①、③

和名 ニューデリー駅近代化計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1992
Revised Mar.1996

ASO IND/S 304/90

I. OUTLINE OF STUDY

1.COUNTRY India

2.NAME OF STUDY
Improvement Plan of New Mangalore

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
The Coordination Committee
Government of India (Ministry of Surface Transport), Joint Secretary(Ports)

7.OBJECTIVES OF STUDY
To prepare a Master Plan up to the year 2004/2005
To prepare a Short-term Plan up to the year 1994/1995

8.DATE OF S/W 1989/3

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
Yachiyo Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period Aug.1989-Aug.1990(13 months)

Total M/M	Japan	Field
56.52	26.22	30.30

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Wave observation, and current observation etc.

12.EXPENDITURE

Total	219,260 (¥'000)
Contracted	224,275

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
New Mangalore Port

2.PROJECT COST

(US$1,000) US$1=Rs16.75		Total Cost	Local Cost	Foreign Cost
	1)	76,521	49,460	27,061
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

1.Review of Master Plan
  1)Iron Ore Berth, Oil Berth,
  2)Oil Product Berth, Coal Berth,
  3)Breakwaters
  4)Dredging

2.Short-term plan with the target year of 1995
  1)Improvement of the existing Iron Ore Bereh to 100,000 DWT class.
  2)Reconstruction of the existing 0:7 Product Jetty to a Crude 0:7 Jetty of 100,000 DWT class
  3)Construction of an 0:7 Product Jetty of 85,000 DWT class
  4)Extension of the Southern and Northern Breakwaters up to 1,500m
  5)Deepning and widening of the channel
  6)Deepning and widening of the Basin

Imp. Period: 1991. -1993. 1992. -1994.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	22.90	FIRR1)	12.50
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

-Demand Forecast:

	1994/1995	2004/2005 (Unit; '000tons)
Iron Ore (Export) :	7500	1000
Oil Products (Export) :	1570	3160
Crude Oil (Import) :	3000	6000

-It will be possible to accommodate 100000 DWT iron ore carriers and crude oil tankers and 85000 DWT oil products carriers by development of the port from 60000 DWT iron ore carriers at present.

5.TECHNICAL TRANSFER
1)Counterpart training; 2) technical transfer by OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ● Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
Kudremukh, a user of the Iron Ore Berth, is worried whether the project is profitable, because the project cost is expensive. Therefore, the project has not been implemented.

(1991 Survey of JICA Overseas Office)
KIOCL has decided to construct the iron ore berth. The D/D on the oil related facilities was conducted and these facilities are expected to be constructed in the near future. The M/P by JICA is reviewed periodically.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
1) Maintenance of facilities relating to oil refinement and steam power plant
1.Maintenance of following oil facilities is in progress by Indian Oil Company, a semi-national firm.
- alteration of existing berths for oil products to crude oil berths
- construction of new berths for oil products(*)
- extension/expansion of breakwaters(*)
- expansion and deepening of navigation traffic routes(*)
- expansion and deepening of anchorages
- improvement of facilities
- reinforcement of tugboats(*)

(*) ordered after tenders

2. Funding
L/A was concluded with SCICI, a semi-governmental financial corporation, at the price of US$ 73 mil. Completion of the construction is scheduled in December 1996.

Improvement of iron ore processing
Realization delays after the detailed design due to a financial problem. Kudremukh Iron Ore Co. Ltd. (KIOCL), which determined to build iron ore handling berths, suspended the construction owing to expansion cost for development.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
It is integrated into the National Development Plan.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 ニュー・マンガロール港改良計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1993
Revised Mar.1996

ASO IND/A 301/91

I. OUTLINE OF STUDY

1.COUNTRY: India

2.NAME OF STUDY
Irrigation and Drainage Development of Sharda Canal CAD Project

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Ministry of Water Resources.
Department of Area Development of Uttar Pradesh State Government.

7.OBJECTIVES OF STUDY
To formulate an optimum agricultural development plan for the selected areas in the command area of Sharda canal CAD Project.

8.DATE OF S/W: 1990/4

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
Hokkaido Engineering Consultants Co., Ltd.

10.STUDY TEAM
No.of Members 10
Period Sep.1990-Jul.1991(11 months)

Total M/M	Japan	Field
65.94	26.78	38.96

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	228,100 (¥'000)
Contracted	229,851

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Command area Hardoi Branch Canal within Sharda Canal CAD Project

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	129,386	107,336	22,046
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1. Irrigation Plan
 1.1 Improvement of Existing Irrigation System: 53,161ha
 1.2 Sai River Pump Lift Irrigation Scheme: 4,989ha
 1.3 Ground Water Development: 1,180nos
 1.4 Establishment of Wireless Communication System
2. Drainage Plan
3. On-farm Development Plan
4. Improvement Plan of Water logging and Salt Affected Areas: 17,950ha
5. Corp Production Plan
6. Plan to Acutualize Osrafandi

Imp. Period: 1993.1-1998.12

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	15.50	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions:
 Expansion of irrigation area through stable water supply
 Training, education, research & extencion to farmers
 Drainage improvement
 Education to women
 Soil impravement
 Application of organic matter and green manure

Impacts:

Production increase(ton)	w/o project	w project
rice	42,000	101,000
wheat	64,500	102,400
pulses	2,200	15,900
oil crops	12,000	62,600

Economic benefit is estimated at Rp.488.5 x 10^6. Farm budget analysis made to the poorest farmers having marginal land reveal that the project will increase their income by 50% to 120% and contribute much their nutritions status.

5.TECHNICAL TRANSFER
Training of Indian counterpart personnel in the course of the study as for on-farm devemlopment and water managemanet.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
To implement the Project, the request from the government of Uttar Pradesh State, where the project is located, to the Central Government is first required. Up to the present, no action has been taken by the State Government.

(FY1994 Domestic Survey)
Request from the State Government to the Central Government is not prepared yet.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
- The Government of India requires a large proportion of grant aid in the financial assistance.
- The Government of India considers that unit cost per ha is rather high for extension of the proposed developement concept to surrounding areas.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 シャルダ灌漑・排水事業整備計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1994
Revised Mar.1996

ASO IND/S 305/92

I. OUTLINE OF STUDY

1.COUNTRY: India

2.NAME OF STUDY:
Transport Infrastructure Development Project in Calcutta

3.SECTOR:
Transportation/Urban Transportaion

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY:
Transport Department Ministry of Transport

7.OBJECTIVES OF STUDY:
To conduct a feasibility study on the transport infrastructure for the alleviation of traffic congestion in the study area

8.DATE OF S/W: 1990/12

9.CONSULTANT(S):
Yachiyo Engineering Co., Ltd.
Fukuyama Consultants International, Inc.

10.STUDY TEAM

No.of Members 9
Period Sep.1991-Feb.1992(6 months)

Total M/M	Japan	Field
37.28	17.91	19.37

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Traffic Survey, Topographin Surveu (4 km2), Soil Investigation (40m x 10 intersections)
Underground Utilities, Survey (10 intersections)

12.EXPENDITURE

Total	147,609 (¥'000)
Contracted	116,619

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Calcutta Metropolitan District

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	67,000	26,800	40,200
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Flyover - 6 flyover
At Grade Improvements - 4 Intersections
Pedestrian Plaza - 1.5 kilometer

Imp. Period: 1993. -1997.

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	18.40	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Direct benefit : Reduction of transport costs

Indirect effects:
1) Decrease of traffic accidents
2) Improvement of air pollution
3) Decrease of the honking of vehicles
4) Increase of employment
5) Rebuilding of an old town area
6) Side-effects in better driver behaviour
7) Training better pedestrian behaviour at cross walks

5.TECHNICAL TRANSFER
Counterpart training in Japan: 2 persons (May 25 '92- June 11 '92)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [ ] Completed or in Progress
  - ○ Completed
  - ○ Partially Completed
  - ○ Implementing
  - ○ Processing
- [x] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
West Bengal Government will request Central Government to apply for OECF loan in this year. (The application already prepared)

(FY1993 Overseas Survey)
Application for the OECF assistance has been made by the Government of West Bengal through the Government of India. However, no further progress could be made.
This Project has been included in the Eight 5-year plan of the Government of West Bengal.
This Project aims at following points and to be expected very effective.
1)To increase extremely limited road capacity in the central area of Calcutta.
2)To arrange more efficient public transportation systems with bus service networks, and
3)To improve the accessibility of the central area of Calcutta and its linkages with surrounding areas of the metropolis including newly built second Hooghly bridge.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
Although this project was listed on the summary of OECF loan request of the Indian Ministry of Finance (1992-93), it was finally deleted from the list at the end of the year. Since necessity of flyover facilities proposed by the F/S, however, is emergent and private finance cannot be used in case of BOT, West Bengal State has an intention to apply to OECF loan again.

(FY1995 Domestic Survey)
The financing for this project had officially requested to OECF by the Government of India on 1993 and 1994. However, it had been rejected.
On 1995, the Provincial Government of West Bengal submitted a request for the materialization of the project to OECF again. And it is learnt that OECF is now examining with a positive interest.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、② Ministry of Transport、③

和名 カルカッタ都市交通施設整備計画

{F/S,D/D}

PROJECT SUMMARY (Other)

Compiled Mar.1990
Revised Mar.1996

ASE IDN/S 601/74

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY
Solo River Basin Development(follow-up)

3.SECTOR
Social Infrastructu/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY
Directorate General of Water Resources Development

7.OBJECTIVES OF STUDY
Guidance on topographic mapping and boring

8.DATE OF S/W: /

9.CONSULTANT(S)

10.STUDY TEAM
No.of Members
Period Nov.1974-Mar.1975(4 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 3,905 (¥000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Central part of Java, Solo River basin (16,000sq.km, population 10 million)

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
After the completion of the Master Plan Study in July 1974, this follow-up study gave technical guidance on topographic mapping and underground water boring.

4.CONDITIONS AND DEVELOPMENT IMPACTS

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY1995 Domestic Survey)
No additional information.
Data are not available as the person in charge had been shifted to the other place.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ソロ河流域開発計画アフターケア

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1986
Revised Mar.1996

ASE IDN/S 101/75

I. OUTLINE OF STUDY

1.COUNTRY Indonesia

2.NAME OF STUDY
Java Regional Study, East Java

3.SECTOR
Development Plan/Integrated Regional Development Plan

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Ministry of Public Works and Power

7.OBJECTIVES OF STUDY
Regional development planning for increased equity of income distribution

8.DATE OF S/W 1975/4

9.CONSULTANT(S)
International Development Center of Japan

10.STUDY TEAM

No.of Members 8
Period Mar.1975-Jan.1976(10 months)

Total M/M	Japan	Field
24.60	13.40	11.20

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12 EXPENDITURE

Total	67,354 (¥'000)
Contracted	39,653

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
East Java Province (47,922 sq.km)

2.PROJECT COST

(US$1,000) (US$1=415Rp.)	Total Cost	Local Cost	Foreign Cost
1)			
2)			

3.CONTENTS OF MAJOR PROJECT(S)

Based on the selected development strategy, the study proposed 7 priority programs and 2 supporting measures as follows.

Priority Programs:
(1) Industrialization Program (institutional requirements)
(2) Water Resources Development Program (flood control and irrigation development in Solo and Brantas river basins)
(3) Madura Agricultural Development Program (cattle fattening, freshwater aquaculture, suitable upland crops)
(4) Southern Coast Development Program (port development, mining)
(5) Rural Development Program (strengthening of agricultrural coops & INPRES programs)
(6) Community Facility System Development Program (study of available service facilities and development planning)

Supporting Measures:
(7) Professional Education Program
(8) Strengthening of BAPPEDA

4.CONDITIONS AND DEVELOPMENT IMPACTS

After the spatial evaluation of development potentials, the study proposed the followng dual strategy for the Province.

1. "Pulling-from-the-top" Strategy
Major elements are skill-oriented labor-intensive industrialization and more intensified planning activities on the provincial level. The Surabaya-Gresik axis is the primary center of industrial development, and industrialization will spread along the fairly developed trunk highways to Mojokerto, Kediri and Madium to the west, down to Malang in the south, and to Pasuruan, Probolinggo, Jember and Banyuwangi to the east.

2. "Pushing-from-the-bottom" Strategy
Major elements include rural development and water resources development in Solo and Brantas river basins. In the spatial framework development efforts will be directed to the underdevelopment areas such as the southern and northern coastal zones, Madura Island and the area bordering Central Java Province.

5.TECHNICAL TRANSFER
-Participation of counterparts in the JICA training program -OJT on regional development planning

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)

Of the six priority programs, the southern coast development program and the rural development program were selected for another M/P study, "Southern Coast Development Plan, East Java," which was undertaken during FY1978 - 1979.
Some of the projects which were central to the priority programs have been financed by the OECF loans as follows.
1) Wonogiri Multi-purpose Dam and Irrigation Development
- OECF loan agreements signed in Jan. 1976 (430 million yen) and Aug. 1977 (9.8 billion yen) for the dam.
- OECF loan agreements signed in Mar. 1977 (513 million yen) and in Feb. 1979 (9.8 billion yen) for the irrigation development.

2) River channel improvement of upstream Solo River and Madiun River
- OECF loan agreement signed in Feb. 1985 (6.4 billion yen)

3) Flood control of midstream Brantas River
- OECF loan agreements signed in Oct. 1977 (504 million yen), in Mar. 1979 (5,718 million yen) and in Feb. 1985 (6 billion yen).

(FY1993 Overseas Survey)
The JICA Study was completed about 18 years ago. The Indonesian counterparts at the time of study are no longer working at the Provincial BAPPEDA and no information is available on how the Study's proposals were utilized subsequently.
The growth pattern of provincial economy since the latter half of the 1970s roughly concurs with the "pulling-from-the-top" strategy in that the Surabaya/Gresik axis has been landing the agglomeration of industrial and other economic activities in the province. The rapid growth of Surabaya has been spreading along the trunk roads to the surrounding cities.
According to the 15-year Provincial Spatial Design Structure Plan (RSTRP) of 1990, the first priority for rural development is assigned to the southern coastal area and the second priority to Madura Island. In other workds, the situation of underdevelopment still remains unchanged since the time of the JICA Study 18 years ago. The 1st priority for urban development is now shifting toward the secondary cities away from the Surabaya metropolitan area.

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③、④

和名 東部ジャワ州総合開発

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1996

ASE IDN/S 301/75

I. OUTLINE OF STUDY

1.COUNTRY Indonesia

2.NAME OF STUDY
Wonogiri Multipurpose Dam Project

3.SECTOR
Social Infrastructu/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Directorate General of Water Resouces Development

7.OBJECTIVES OF STUDY
A F/S of irrigation sector, power sector and flood control among the Solo River Basin Master Plan, taking into account the importance of increasing food production, lessening flood damage and supplying hydro-electric power.

8.DATE OF S/W /

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
CTI Engineering Co., Ltd.
Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members	20	
Period	Nov.1974-Oct.1975(12 months)	
Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	136,361 (¥'000)
Contracted	131,851

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Upstream area of Solo River Basin (Kab. Wonogiri), in Central Java Province

2.PROJECT COST

(US$1,000) (US$1=415Rp)		Total Cost	Local Cost	Foreign Cost
	1)	211,330	120,010	91,320
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1. Dam and reservior
Dam: Catchment area: 1,350 sq. km, Rockfill type, Crest elevation: 141.60m SHVP, max. height of dam: 37.5 m, Crest length: 1,440m, Embankment volume: 1.8 cu. m
Reservior: Gross storage capacity: 730 million cu. m, Sediment storage capacity:120 million cu. m, Effective storage capacity: 440 million cu. m, Flood control capacity: 220 million cu. m
2. Irrigation
Irrigation area: 23,600 ha; Colo diversion weir: Concrete weir, Height of weir: 10 m, Length of weir: 108m; Irrigation canal: Length of main canal: 89.5 km, Length of secondary canal:144.9 km: Crossing: 17 siphons, 16 aqueducts, 95 culverts, 183 bridges, 49 turnouts, 6 checkgates and 3 regulating reserviors
3. Power station
Turbine: 2 units of 5,100kW vertical shaft Kaplan type, Generator: 2 units of 6,375 kVA alternate current generators
4. Flood control (River improvement)
Improved section: Nguter - Surakarta, Length of the section: 32.2 km along the main river and 17.5 km along the tributaries, Design discharge (after dam regulation): 1,600 cu. m/sec at beginning section (Nguter) and 2,000 cu. m/sec at end section (Surakarta)

Imp. Period: 1976.10-1983.11

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	13.90	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The combined effects of (1) flood control, (2) irrigation, (3) power generation and (4) dam and river channel improvement are evaluated.
Development impacts:
(1) Flood control effect by the dam (4,000 cu.m per second reduced to 400 cu.m per sec)
(2) Irrigation for 23,600 ha with cropping intensity of 2.5.
(3) Reduction of flooding
(4) Power generation of 28,200 MWh

5.TECHNICAL TRANSFER
(1) On-the-job training
(2) Counterpart training program (JICA)
(3) Provision of equipment

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)

Jan.1976	OECF loan agreement (E/S, 430 million yen) For the dam and the power plant
Mar.1977	OECF loan agreement (E/S, 513 million yen) For irrigation development
Jun.1977	E/S completed (the dam and the power plant)
Aug.1977	OECF loan agreement (9,807 million yen) for the dam
Feb.1979	OECF loan agreement (9,800 million yen) For irrigation development
Dec.1978	OECF loan agreement (3,400 million yen) For the power plant
Feb.1981	Construction of the dam completed

(FY1994 Domestic Survey)
No information.

2.MAJOR REASONS FOR PRESENT STATUS
(1) large impact: the first project on Solo River was expected to solve the problem of flood in Surakarta.
(2) high priority: contribution to food self-sufficiency.
(3) strong administrative support: compatible to the strategy of the 5-year development plan.

3.PRINCIPAL SOURCE OF INFORMATION
①、④

和名 ウオノギリ多目的ダム建設計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE IDN/A 301/76

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY:
Wonogiri Irrigation and Upper Solo River Improvement Project

3.SECTOR:
Agriculture/(Agriculture in)General

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

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

7.OBJECTIVES OF STUDY:

8.DATE OF S/W: /

9.CONSULTANT(S):
Nippon Koei Co., Ltd.
CTI Engineering Co., Ltd.
Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 15

Period Jan.1976-Sep.1976(9 months)

Total M/M	Japan	Field
91.22	42.20	49.02

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
None

12.EXPENDITURE

Total	164,779 (¥'000)
Contracted	158,217

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Area with 5km wide and 60km long along the Solo river (population is 25 million centering on Surakarta city of Java island)

2.PROJECT COST

(US$1,000) US$1=415Rp.		Total Cost	Local Cost	Foreign Cost
	1)	277,080	174,130	102,950
	2)	82,150	47,880	34,270
	3)	63,180	35,480	27,700

3.CONTENTS OF MAJOR PROJECT(S)

1. Irrigation 1) Colo intake weir: Concrete weir,Height of weir: 10m, Length of weir: 108m 2) Irrigation canal: a. Irrigation area: 23,200ha b. Length of main canal: 93.8km c. Length of secondary canal: 81.2km d. Length of tertiary canal: 928km in total 3) crossings: 48 turnouts, 13 gates, 27 shiphons, 16 head races and 259 bridges
2. River improvement 1) Improvement area: Nguter railway bridge-Jurug road bridge, Surakarta city 2) Length of river improvement: 33km along Solo River and 30.5km along eight tributaries 3) Designed discharge after dam construction: 1,050 cu.m/s at Nguter railway bridge and 2,000 cu.m/s at Jurug road bridge 4) two retarding basins (capacity: 27 million cu.m and 18 million cu.m) 5) Length of bank protection: 7km 6) 395 spur dikes (13km) 7) 32 sluice-ways 8) Length of drains for water inside dikes
3. Wonogiri Dam 1) Catchment area: 1,350 sq.km 2) Rockfill type dam 3) Fill: 18 million cu.m 4). Intake capacity for irrigation at Colo weir: 400 illion cu.m 5) Intake capacity for river maintenance: 30 million cu.m
4. Water power station 1) Turbines: two units of 5,100kW Kaplan-type turbines 2) Generator: two units of 6,375 kVA generators 3) Maximum output: 10,200 kW 4) Yearly average output: 28,200 MWh

Note: One study consists of this study and Wonogiri Irrigation and Upper Solo River Improvement Project study (Social Infrastructure/River & Erosion control). The above project costs are for: 1) total 2) irrigation 3) river improvement. In addition to these, 4) dam and reservoir (total:

Imp. Period: 1977.5-1983.10

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	12.10	FIRR1)	
EIRR2)	12.50	FIRR2)	
EIRR3)	11.70	FIRR3)	

Conditions and Development Impacts:

1. Primary benefits
1) a. Irrigation benefits,
b. Flood damage at Sragen district (negative benefit),
c. Farm production increase by the supply of water in the project area to the outside area, and
d. Saved maintenance fee by the pump disposal,
2) Flood control benefits: decrease of flood damage
3) Hydroelectiric power benefits
2. Secondary benefits
1) Economic benefits by fishery,recreaions, tourism and water.
2) Foreign currency saving by the decrease of import paddy from paddy production increase.

Note: The above EIRRs are for: 1) total project, 2) irrigation, and 3) river improvement. In addition to these 4) EIRR for hydroelectric power was calculated as 8.9

5.TECHNICAL TRANSFER
(1)OJT
(2)Training in Japan
(3)Report writing

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - ○ Completed
  - ● Partially Completed
  - ○ Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)

Mar.1977	OECF L/A signed (E/S, 513 million yen)
1977 - 1979	D/D undertaken (Nippon Koei Co.)
Feb.1979	OECF L/A signed (9.8 billion yen)
1980 - 1986	Construction undertaken

OECF Loan:
- Irrigation development (23,200 ha)
- Intake weir at Colo (height 8.6Sm, length 111.75m)
- Irrigation canals (main 95km, branch 80km)

(FY1994 Domestic Survey)
Operation of the dam and irrigation facilities has been commenced immedirtely after teh completion and are well managed at present. A modification of a cropping pattern due to change of the government policy enabled saving of irrigation water. Therefore,GOI is extending the irrigation area by itself.

(FY1994 Overseas Survey)(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③、④

和名 ウオノギリダムかんがい及び河川改修計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1996

ASE IDN/S 302/76

I. OUTLINE OF STUDY

1.COUNTRY Indonesia

2.NAME OF STUDY
Wonogiri Irrigation and Upper Solo River Improvement Project

3.SECTOR
Social Infrastructu/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Directorate General of Water Resources Development, Solo River Basin Development Project

7.OBJECTIVES OF STUDY
Irrigation, Flood control and Hydroelectric Power

8.DATE OF S/W /

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
CTI Engineering Co., Ltd.
Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM
No.of Members 22
Period Jan.1976-Sep.1976(7 months)

Total M/M	Japan	Field
91.22	42.20	49.02

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	164,779 (¥'000)
Contracted	158,217

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Surakarta Area
(downstream reach at Wonogiri Dam, Middle Java)

2.PROJECT COST (US$1,000) (US$1=415Rp)

	Total Cost	Local Cost	Foreign Cost
1)	277,080	174,130	102,950
2)	82,150	47,880	34,270
3)	63,180	35,480	27,700

3.CONTENTS OF MAJOR PROJECT(S)
1. Irrigation 1) Colo intake weir: Concrete weir, Height of weir: 10 m, Length of weir: 108 m 2) Irrigation canal: a. Irrigation area: 23,200 ha,b. Length of main canal: 93.8 km, c. Length of secondary canal: 81.2 km, d. Length' of tertiary canal: 928 km in total 3) Crossings: 48 turnouts, 13 gates, 27 siphons, 16 head races and 259 bridges
2. River improvement 1) Improvement area: Nguter railway bridge-Jurug road bridge, Surakarta City 2) Length of river improvements: 33km along Solo River and 30.5 km along eight tributaries 3) Designed discharge after dam construction: 1,050 cu.m/s at Nguter railway bridge and 2,000 cu.m/s at Jurug road bridge 4) two retarding basins (capacity: 27 million cu.m and 18 illion cu.m) 5) Length of bank protection: 7 km 6) 395 spur dikes (13 km) 7) 32 sluice-ways 8) Length of drains for water inside dikes
3. Wonogiri Dam 1) Catchment area: 1,350 sq.km 2) Rockfill type dam 3) Fill:18 million cu.m 4) Intake capacity for irrigation at Colo weir: 400 million cu.m 5) Intake capacity for river maintenance: 30 million cu.m
4. Water power station 1) Turbines: two units of 5,100 kW Kaplan-type turbines 2) Generator: two units of 6,375 kVA generators 3) Maximum output: 10,200 kW 4) Yearly average output: 28,200 MWh
Note: One study consists of this study and Wonogiri Irrigation and Upper Solo River Improvement Project study (Agriculture/General). The above project costs are for: 1) total 2) irrigation 3) river improvemet. In addition to these, 4) dam and reservoir (total: 115,200, local: 88,250 and

Imp. Period: 1978.4-1983.10

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	12.10	FIRR1)	
EIRR2)	12.50	FIRR2)	
EIRR3)	11.70	FIRR3)	

Conditions and Development Impacts:
1. Primary benefits
1) a. Irrigation benefits,
b. Flood damage at Sragen district (negative benefit),
c. Farm production increase by the supply of water in the project area to the outside area, and
d. Saved maintenance fee by the pump disposal,
2) Flood control benefits: decrease of flood damage
3) Hydroelectric power benefits

2. Secondary benefits
1) Economic benefits by fishery, recreations, tourism and water.
2) Foreign currency saving by the decrease of import paddy from paddy production increase.

Note: The above EIRRs are for: 1) total project, 2) irrigation, and 3) river improvement. In addition to these 4) EIRR for hydroeletric power was calculated as 8.9.

5.TECHNICAL TRANSFER
1) OJT, (2) Training in Japan (Number of person is not clear.)
3) Cooperative reporting
4) Supply of equipment and instruction of operation

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

- [■] Completed or in Progress
  - (●) Completed
  - ( ) Partially Completed
  - ( ) Implementing
  - ( ) Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
Mar.1978 OECF loan agreement for irrigation (E/S, 513 million yen)
Feb.1979 OECF loan agreement for irrigation (9,800 million yen)
Jan.1981 Construction completed
Sep.1981 OECF loan agreement (E/S, 805 million yen)
Upper Solo River and Madiun River Improvement
Jan.1985 Detailed design completed
Dec.1985 OECF L/A signed (4,746 million yen)
Mar.1988 Construction started
Oct.1993 Construction to be completed

Note: The OECF loan above was for Packages 1 and 2 of the Phase I construction. Because of the large Rupiah devaluation, the implementation left a large loan balance, which was then used to construct Packages 3,4 and 5.

(FY1993 Overseas Survey)
1.In 1992 a working unit has been established by provicincial government which was intended for undertaking operation & maintenance of right main canal of Wonogiri Irrigation area.
2.Left main canal of Worogiri Irrigation is now under construction, and nearly completed. Upon completion of left main canal, the operation & maintenance will be handed over to provincial government.

(FY1994 Domestic Survey)
River improvement work has completed on Oct,1994.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
1.Large economic impact
2.High priority
3.Good financial position
4.Stable political background

3.PRINCIPAL SOURCE OF INFORMATION
①、③、④

和名 ウオノギリ多目的ダム計画関連灌漑及び河川改修計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1976
Revised Mar.1996

ASE IDN/S 303/76

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY
Central and East Java Road Betterment Project

3.SECTOR
Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Bina Marga
(Directorate General of Highways, Ministry of Public Works)

7.OBJECTIVES OF STUDY
Widening, overlay and realignment of roads

8.DATE OF S/W: 1975/11

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

10.STUDY TEAM

No.of Members 21
Period Nov.1975-Aug.1976(10 months)

Total M/M	Japan	Field
57.00	39.00	18.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	161,259 (¥'000)
Contracted	105,197

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Cilacap - Malang Corridor

2.PROJECT COST (US$1,000) (US$1=415Rp)

	Total Cost	Local Cost	Foreign Cost
1)	53,000	33,000	20,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Improvement of road condition in four routes connecting Central and East Java provinces
[Project Routes]

ROUTE 1:	Buntu - Pringsurat	145.2 km
ROUTE 2:	Salaman - Purworejo	27.2 km
ROUTE 3:	Surakarta - Wonogiri	32.2 km
ROUTE 4:	Ponorogo - Biltar	117.5 km
TOTAL		322.1 km

Imp. Period: 1975. -1976.

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	37.98	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
1) Project life of 10 years, socilal discount rate at 15%
2) Evaluation based on alternative plans for standards of design and stages of construction
Standards of design
Plan 1 (from longer-run point of view): a 2-lane carriageway with a minimum width of 6m for each of the four project routes
Plan 2 (responding to stages of regional development): adoption of tentative standards (width ranged 4.5 - 6m) according to the traffic volume in the respective routes
Stages of construction
Non-staged construction: based on traffic volume in 1990
Staged construction: 1st stage based on traffic volume in 1985 and 2nd stage on that in 1990
Plan 2 with non-staged construction was evaluated as best.
[Development Impacts]
(1)Promoting economic development in the areas along the project roads (Cilacap-Malang, Cilacap-Semarang)
(2)Indirect diffusion effects on economic development in conjunction with other road construction/ betterment projects in the whole Central and East Java

5.TECHNICAL TRANSFER
Technical trasfer by reception of trainees

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)

Apr.1977 OECF L/A signed (E/S 226 million yen)
Sep.1979 D/D completed
Jun.1980 OECF L/A signed (3,600 million yen)
Nov.1987 Construction completed

Realized project:
Road improvement of 170km
Buntu-Wonosobo Section (Central Java)
Wonosobo-Secang Section (Central Java)
Ponogoro-Blitan (East Java)

(FY1994 Domestic Survey)
No information.

2.MAJOR REASONS FOR PRESENT STATUS
(1) Benefit: Economic development was greatly promoted along the routes of Cilacap-Malang and Cilacap-Semarang.
(2) The completion of this roads has had a great repercussions in the close relation to the other project roads of the same district; Semarang-Magelang, Magelang-Purworejo, etc.
(3) Top priority : These roads are playing a very important role in the development of Central and East Java in as much as they connect the Southern and Northern Coasts of Java.

3.PRINCIPAL SOURCE OF INFORMATION
①、④

和名 中東部ジャワ道路改良計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

Compiled Mar.1986
Revised Mar.1996

ASE IDN/S 102/77

I. OUTLINE OF STUDY

1.COUNTRY Indonesia

2.NAME OF STUDY
Java Regional Study: Central Java

3.SECTOR
Development Plan/Integrated Regional Development Plan

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Directorate of Urban Planning and Housing, Ministry of Public Works

7.OBJECTIVES OF STUDY
Evaluation of regional development potentials and formulation of development strategies

8.DATE OF S/W 1976/10

9.CONSULTANT(S)
International Development Center of Japan

10.STUDY TEAM

No.of Members 9

Period Dec.1976-Nov.1977(11 months)

Total M/M	Japan	Field
34.80	24.20	10.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	72,667 (¥'000)
Contracted	68,987

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Central Java Province (34,206 sq.km)

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

The study selected as high priority development areas two large blocks which are further subdivided into six small blocks as shown below, and indicated core development sectors for each small block.

I-A Semarang(provincial capital)
Industry : port dev., industrial estates, water supply, road, etc.
Urban Dev.: urban planning, housing site dev., Kampung dev.

I-B Dieng Plateau, Wonosobo
Agro-tourism: roads, agri. land dev, hotels/resourts, power supply, etc.

I-C Magelang, Temanggung, Kopeng, Bandungan
Tourism/Resourt: hotels/resorts, Restoration of historic assets, etc.
Agriculture/Agro-processing: extension services, marketing, etc.

I-D Demak, Kudus, Jepara
Agriculture/Agro-processing: reservoirs, drainage, marketing, etc.
Industry: extension services, better access to Semarang, etc.

II-A Cilacap
Industry: power and water supply, industrial sites, access, etc.
Marketing: better access to loans

II-B Purwokerto, Banyumas, Baturaden
Agriculture/Resourt/Education & Culture

4.CONDITIONS AND DEVELOPMENT IMPACTS

1.Spatial Distribution of Development Potentials
Development Center: Semarang
Development Belt: roughly along the national highway from Brebes, Tegal, Pekalongan through Semarang, Salatiga to Surakarta and the east, with two spurs through Mageland and Klaten toward Yogyakarta.
Isolated Growth Centers: Cilacap/Banyumas and Kudus
Minus Areas: central highlands, eastern and southeastern ends of the Province Intermediate Areas : remaining areas

2.Selected Development Strategy
The Study evaluated three alternative strategies of (i) Differential Growth Strategy, (ii) Minus Areas Strategy and (iii) Cilacap Axis Development Strategy, and selected the following mix.
(1)Differential Growth Strategy and Minus Areas Strategy are mixed in a proportion of two to one.
(2)The family planning and transmigration programs are strengthened to reduce the population pressure of the province.
(3)Teh Cilacap Axis Strategy as a whole is not included but Cilacap and its direct vicinity is given emphasis for development.

5.TECHNICAL TRANSFER
1)OJT on regional development planning
2)Farticipation of the counterparts in the JICA training program
3)Joint report

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY1993 Overseas Survey)
1. Utilization of the Development Frame
(1) The development frame proposed by the JICA Study, notably the spatial frame of development potentials and the selected priority areas for development, was used as the basis for the 3rd 5-year Development Plan (1979/80 - 83/84)
(2) The development frame was modified on the basis of the performance evaluation study conducted in 1982 and used as the basis for development planning for the 4th 5-year Development Plan (1984/84 - 88/89)
(3) The spatial frame of development potentials as proposed by the JICA Study was used, with some modifications, as the conceptual basis for formulating the 15-year Provincial Spatial Design Structure Plan(RSTRP) in 1991. The province is subdivided into three areas by the level of productivity: namely, (i) high productivity areas (roughly coincide with Semarang and the Development Belt), (ii) lower productivity areas (Cilacap/Banyumas) and (iii) lowest assessment, three alternative development strategies are proposed for the selected priority areas.
2. Development Performance
(1) Industry and Industry-supporting Development
- Industrial park and/or estates established in Semarang
- Kretek tabacco industry and printing industry development in Kudus
- Agro-processing development in Magelang and Dieng Plateu (e.g. mushoroom production and canning)
- Development of Semarang Port financed by the OECF Loans (Phase-1 construction completed, Phase-2 construction under implementation)
- Urban planning and development in Semarang: implemented by the 2nd IUIDP from 1994
- Petrochemical complex and an industrial estate developed in Cilacap
(2) Tourism Development
- National Archeological Parks at Borobudur/Prambanan completed with the OECF Loans (L/A Apr. 1980 for E/S, and L/A Mar.1981 for restoration/construction)
- Agro-tourism being developed in Dieng Plateau
- Tourism development in the Semarang-Yogyakarta Complex:the Central Java and Yogyakarta Bridging Study completed by UNDP/UNESCO in 1993.
(3) Agricultrural development
- Irrigation development in Demak-Kudus Area: Jeratunseluna Project has been under implementation since the 4th 5-year Development Plan.
-High -Altitudo Agriculture under development in Dieng Plateau

(FY1994 Domestic Survey)(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③、④

和名 中部ジャワ州総合開発計画

(M/P,Basic Study,Other)

PROJECT SUMMARY (Other)

Compiled Mar.1990
Revised Mar.1996

ASE IDN/S 603/77

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY: Brantas Middle Reaches River Improvement Project(follow-up)

3.SECTOR: Social Infrastructu/River & Erosion Control

4.REFERENCE NO.:

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY: Directorate General of Water Resources Development

7.OBJECTIVES OF STUDY:

8.DATE OF S/W: /

9.CONSULTANT(S):

10.STUDY TEAM

No.of Members 3
Period Aug.1977-Sep.1977(0.4 months)

	Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total 2,495 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Midstream basin of Brantas River in East Java Province (about 110 km in length)

2.PROJECT COST

(US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)			
2)			

3.CONTENTS OF MAJOR PROJECT(S)

In order to facilitate the engineering service which was scheduled to be implemented with OECF financing, this follow-up study visited the middle reaches of Brantas River and clarified the basic approach in consultation with the Indonesian Government.

4.CONDITIONS AND DEVELOPMENT IMPACTS

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

- [■] In Progress or In Use
- [ ] Delayed
- [ ] Discontinued

(Description)

1977.10.18 OECF L/A (E/S): 504 million yen (Brantas Middle River Flood Control)
1979. 3.15 OECF L/A: 5,118 million yen (Brantas Middle River Flood Control)
1985. 2.15 OECF L/A: 6,000 million yen (Brantas Middle River Improvement(2))

(FY1995 Domestic Survey)
No information, as the consultants in charge are moved to some other unknown places.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①、④

和名 ブランタス河中流部河川改修計画アフターケア

(M/P,Basic Study,Other)

PROJECT SUMMARY (Other)

Compiled Mar.1990
Revised Mar.1996

ASE IDN/S 602/77

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY: Brantas River Basin Development Plan(follow-up)

3.SECTOR: Social Infrastructu/River & Erosion Control

4.REFERENCE NO.:

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY: Directorate General of Water Resource Development

7.OBJECTIVES OF STUDY:

8.DATE OF S/W: /

9.CONSULTANT(S):

10.STUDY TEAM
No.of Members 3
Period Mar.1978-Mar.1978(0.3 months)

	Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE
Total Contracted: 2,273 (¥'000)

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Wuringi dam of Brantas River

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)			
2)			

3.CONTENTS OF MAJOR PROJECT(S)
The study examined the problem of seepage of the base ground of the Wuringi dam, and advised on the suitable construction methods.

4.CONDITIONS AND DEVELOPMENT IMPACTS

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY1995 Domestic Survey)
No information, as the consultants in charge are moved to some other unknown places.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ブランタス河（ウリンギダム） アフターケア

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1996

ASE IDN/S 304/77

I. OUTLINE OF STUDY

1.COUNTRY: Indonesia

2.NAME OF STUDY
Development Plan of the Banjarmasin Port

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Directorate General of Sea Communication

7.OBJECTIVES OF STUDY
M/P aiming the year 2000
F/S on the development plan aiming the year 1983

8.DATE OF S/W: 1976/3

9.CONSULTANT(S)
Overseas Coastal Area Development Institute

10.STUDY TEAM
No.of Members 8
Period Oct.1976-Aug.1977(10 months)

Total M/M	Japan	Field
63.40	22.80	40.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE
Total 157,386 (¥'000)
Contracted 105,398

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kalimanatan, South Kalimantan Province

2.PROJECT COST (US$1,000) (US$1=415Rp)

	Total Cost	Local Cost	Foreign Cost
1)	49,530	28,970	20,560
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1.Estimated annual throughput of Banjarmasin Port is 3.74 million tons and corresponding 130ha terminal area will be prepared.
2.To handle the above cargo, 5.6km-long whay is planned. The followings are new facilities.

- Wharf	L : 740m	D : -10m
- Wharf	L : 1,170m	D : -6m
- Wharf	L : 1,770m	D : -4m
- Wharf	L : 1,000m	D : -2m
- Warehouse	72,000sq.m	

Imp. Period: 1978.1-1983.12

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	24.10	FIRR1)	5.00
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
There are following conditions
- Future Cargo volume is based on the demand forecast for the year 1983 and 2000
- Cargo volume was forecasted 7,540 thousand tons in 2000

The following impacts are expected.
Since the area covered by Banjarmasin port includes not only South Kalimantan Province but also east central Kalimantan Province because of inland waterways like rivers and canals, it was expected that Banjarmasin port would be able to play important role as the gateway port for these two Provinces by this project.

5.TECHNICAL TRANSFER
Counterpart training

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS
- [■] Completed or in Progress
  - (●) Completed
  - ( ) Partially Completed
  - ( ) Implementing
  - ( ) Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)

The project was implemented by ADB financing.

Oct.1984 F/S reviewed
Jun.1985 Detailed design comleted
Nov.1991 Construction completed

Project Outline:
Wharf: 320m long and 9m deep
Wharf: 500m long and 5m deep
Total project cost US$55 million

(FY1994 Domestic Survey)
Requested ADB Loan (90mil US$, Surabaya and Eastern Local Ports and Harbors Development).

2.MAJOR REASONS FOR PRESENT STATUS
High priority

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 バンジャルマシン港開発計画

{F/S,D/D}