PROJECT SUMMARY (F/S)

ASO BGD/S 303/87

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY: Water Drainage System Improvement Project in Dhaka City

3.SECTOR: Social Infrastructu/River & Erosion Control

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Dhaka Water Supply and Sewerage Authority (DWASA)

7.OBJECTIVES OF STUDY: Flood control and storm water drainage improvement of Dhaka city

8.DATE OF S/W: 1986/6

9.CONSULTANT(S): Pacific Consultants International

10.STUDY TEAM

No.of Members 11

Period Nov.1986-Nov.1987(13 months)

Total M/M	Japan	Field
50.48	20.26	30.22

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: Installation of water level meters and rain gages

12.EXPENDITURE

Total	170,915 (¥'000)
Contracted	153,257

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Dhaka City

2.PROJECT COST (US$1,000) US$1=150Yen

	Total Cost	Local Cost	Foreign Cost
1)	67,000	34,000	33,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

- Dike: H=6m, total length=4,800m
- Pump Station: Rehabilitation 9.6 cu.m/sec(1site)
  New Construction 9.2 cu.m/sec(1site)
- Gates: W=6m, H=6m (2 sites)
- Khals: Improvement: total length 13.1km
- Drainage Pipes: Construction 12.5km

Imp. Period: 1989.4-1993.3

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	17.10	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Conditions]
- Future runoff was estimated based on land use forecast in 2005.
- Flood area and flood damage cost was estimated based on existing data as well as direct interview survey with residents.
- Flood water level of the rivers with a 30 year frequency is employed for the design of dike and gates, 2-days consecutive rainfall with a 5-year frequency is employed for the design of pump station, Khal improvements and drainage pipes.

[Development Impact]
The project area, protected from external floods by construction of dike, will be protected from internal flood by construction of pump station and drainage pipes and khal rehabilitaions.

5.TECHNICAL TRANSFER

1) Hold a Seminar on flood protection planning(2 days)
2) Use of local consultants for field survey (3 months)
3) Guidance of O/M of rain gauge and water level gauge

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 updating study of this study was conducted after the record maximum floods of 1988 floods (70 year frequencey).

A portion of the urgent project which was proposed by the updating study is being implemented by the JICA grant aid from fiscal year 1990 to 1992 (one pump station and drainage channel improvement of 4.1 km).

Mar.1990 Grant Aid E/N Signed (Water Drainage System Improvement Project in Dhaka City 6.6mil. Yen)
Aug.1991 Grant Aid E/N Signed (Water Drainage System Improvement Project in Dhaka City 1,158mil.Yen)
May.1992 Grant Aid E/N Signed (Water Drainage System Improvement Project in Dhaka City 2,093mil Yen)
Feb.1993 Completion, handed over to the Gov't of Bangladesh

(FY1991 Overseas Survey)
National wide flood policy study was conducted by the international organization and each donors. The east part of Dhaka City was assigned to Japan, and the western part was assigned to ADB. The project of the eastern part is called FAP8A and is sheduled to be completed by May 1992.
The project of the western part is called FAP8B. The L/A was signed for the rehabilitation of dike, improvement of drainage channel in the city, and construction of pumping station.

(FY1992 Overseas Survey)
Waiting for the answer.

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

(FY1995 Overseas Survey)
This project was taken over by the DWASA, which carried out an updating study of this project.

2.MAJOR REASONS FOR PRESENT STATUS

Implementation of this project became very urgent after the major floods in 1988.

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③

和名 ダッカ市雨水排水施設整備計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

ASO BGD/A 302/88

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
North Rajshahi Irrigation Project

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Bangladesh Water Development Board (BWDB)

7.OBJECTIVES OF STUDY
Feasibility study on the improvement of invigation and drainage systems including agricultural plan

8.DATE OF S/W 1987/2

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

10.STUDY TEAM

No.of Members 12
Period Jul.1987-Jun.1988(11 months)

Total M/M	Japan	Field
74.74	32.15	42.59

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Core Boring, Survey of Trunk Roads, Levelling Survey at the end.

12.EXPENDITURE

Total	222,324 (¥'000)
Contracted	211,428

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Whole area: 72,270ha in northwest of Rajshahi City Irrigable area: 51,200 ha out of the whole area

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	151,000	79,800	71,200
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Intake Capacity (m3/sec)	Diameter (mm)	Type of Pump Unit	Pumping Capacity (m3/sec)	Motor Output (Kw/Unit)	Main Canal (Km)	Branch Canal (Km)
Barindo district	44.24					49	445
Vertical		1,650	4	6.65	2,390		
Mixed		1,350	4	4.00	1,460		
Paba district	9.44					14	82
Vertical		1,350	1	4.12	720		
Mixed		1,000	2	2.07	370		

Imp. Period: 1987.7-1988.6

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	18.40	FIRR1)	13.60
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The project will increase the rice production in the whole project areas from 58,000 ton/year to 303,000 ton/year, which is about 4.9 times as much as the present situation. This is caused by all-year-round irrigation and improvement of farming technology.
Apart from this, wheats, vegetables and sugar canes will be improved in their production amount. These production increase results in the improvement of typical farmers' (farming scale, 1.7ha) income from 21,000 Taka/year of without-project case to 58,000 Taka/year of with-project case, which is about 2.76 times.

5.TECHNICAL TRANSFER
The technical transfer was given in the joint field survey with counterpart staffs and two of them were invited to the seminar 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)
In 1990, the Government of Bangladesh requested for an OECF loan to implement the irrigation development over 9,000 ha, but the OECF survey mission concluded that the project was premature for financing.

(FY1991 Overseas Survey)
The economic viability of large-scale pump irrigation schemes are increasingly considered doubtful vis-a-vis the country's vulnerability to frequent floods. Other agricultural projects under implementation elsewhere are encountering the difficulty of purchasing land for irrigation development. The Government of Bangladesh thus withdrew the OECF application for the proposed project.

(FY1995 Overseas Survey)
This project is planned based on the river water of Ganges as the water resource.However, after expiry of the memorandum of understanding with India in 1988, it became hard to get enough amount of water.At present, the negotiation with India is carring out to this water suppliment issue.
The drainage systems are investigating under FAP(Flood Action Plan) and recommended to implement as for a medium-term project.

2.MAJOR REASONS FOR PRESENT STATUS
Supply of electricity to the large-scale pump facilities in the project was a main barrier to the realization of the project.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 ラジシャヒ北部灌漑計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

Compiled Mar.1991
Revised Mar.1996

ASO BGD/A 101/89

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
Model Rural Development Project for Homna and Dandkandi Upazila Comilla District

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
LGEB BRDB

7.OBJECTIVES OF STUDY
To formulate a master plan on the model rural development for Comilla District

8.DATE OF S/W 1988/2

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

10.STUDY TEAM

No.of Members 10
Period Oct.1988-Sep.1989(12 months)

Total M/M	Japan	Field
46.20	21.33	24.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey, Geological Survey, Survey of the Rural Economy

12.EXPENDITURE

Total	143,620 (¥'000)
Contracted	136,092

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Homna Sub-district and Daudkandi Sub-district

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	121,000		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

The Model Rural Development Project for Homna and Daudkandi Upazilas is aimed to increase employment opportunities and incomes of rural poors through expanded production in agriculture, inland fisheries and rural industries. For this end, the Project constructs the following infrastructures and undertakes measures for strengthening and modernization of cooperatives.

(1) UCCA related works

- UCCA building	2 nos
- Agriculture Modernization Center	2 nos
- Inland Fish Center	2 nos
- Godown cum Community Center	143 nos

(2) Infrastructure development

- Re-excavation of irrigation canel	143 km		
- Low lift pump	341 nos	- Floating pump	5 nos
- Feeder road A	18 km	- Feeder road B	140 km
- Rural road	83 km	- Bridge	144 nos
- Growth center	8 nos	- Hat market	34 nos
- Fish pond improvement	4500 nos		
- School improvement	31 nos		
- Drinking water supply	676 nos		

The Project will be implemented in three stages. The total cost is estimated at 6,253 million Taka, of which 1,630 million Taka is

4.CONDITIONS AND DEVELOPMENT IMPACTS

[Condition]
The economic internal rate of return of the Project is estimated at 20%.

[Development Impacts]
The Project will generate long term employments for 80,000 persons (20 million man day per annum). Besides, the construction works under the Project will employ 20,000 labourers every year during nine years of the project implementation period.
The employment ratio will be improved from 41% in 1988 to 63% in 1999.

5.TECHNICAL TRANSFER
Technology transfer to counterparts in the course of the study.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The project was implemented as a grant aid.
(by Taiyo Consultants Co., Ltd.)

(FY1991 Overseas Survey)
The Government of Bangladesh has applied for a grant aid. The B/D was conducted in the first half of the year 1991.
The E/N (Phase I) of the grant aid was signed in Feb. 1992.

(FY1993 Overseas Survey)
Hoping to be supplied following items :
1)Provision of seed capital on grant for revolving fund,
2)Provision of transport/vehicles for the Project,
3)Arrangement of training fund for the Project Staff and beneficiaries should be made in the Japanese grant aid system, and
4)Provision of residental accommodation for the trainees, office, godown, guard office, garage and connecting access roads.

(FY1994 Domestic Survey)
The Phase I has been completed.

(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
1. A part of the project component was consructed by the Japanese grant in March, 1995.
2. RBDB and TCCA conduct training courses of agricultural production and upgrading life for people in the villages. JOCV volunteers are involved in these training. The project was very effective specially in improving the living standard of rural inhabitants. About 70% of them are benefitted.

2.MAJOR REASONS FOR PRESENT STATUS
This is integrated into the forth Five-Year Plan.

3.PRINCIPAL SOURCE OF INFORMATION
①、② MRDP、BRDP、③

和名 モデル農村開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1991
Revised Mar.1996

ASO BGD/S 306/89

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY
Storm Water Drainage System Improvement Project in Dhaka City (updating study)

3.SECTOR
Social Infrastructu/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Dhaka Water Supply and Sewerage Authority(DWASA)

7.OBJECTIVES OF STUDY
-To update th JICA's previous study(1987)
-To propose the urgent program

8.DATE OF S/W: 1989/7

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members 7
Period Jul.1989-Jan.1990(7 months)

Total M/M	Japan	Field
22.00	10.40	11.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey
Geological Investigation

12.EXPENDITURE

Total	77,691 (¥'000)
Contracted	75,600

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Total project area is 134.9 sq.km including 45.9 sq.kn of urgent area of Dhaka City

2.PROJECT COST

(US$1,000) US$1=32.21K=141Yen		Total Cost	Local Cost	Foreign Cost
	1)	41,500	20,100	21,400
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
The purpose of this project is to improve the drainage condition of Dhaka city which is located in the estuary delta area surrounded by the Gangas, Brahmaputra and Meghna rivers.
The proposed storm water drainage facilities are categorised into two (2) phases, i.e 1) Phase I program and 2) Urgent Project taking into account the priority sequency of the drainage system.
The facilities of the Urgent Project are selected from the Phase I program which include On-going Project by the Bangladesh government and other low priority facilities. The urgent project facilities are shown below:

Facility	Phase I Program		Urgent Project	
1) Pump Station	1 Place	10 m3/s	1 Place	10 m3/s
2) Gate	1 Place		1 Place	
3) Khal Improvement	7,200m		7,200m	
4) Brick Revetment	1,000m		1,000m	
5) Box Culvert	5,800m		2,200m	
6) Bridges	5 Place		5 Place	

A part fo Urgent Project was implimented in Feb. 1993 by the Japanese Grant Aid Program.

Imp. Period: 1990.11-1993.3

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

EIRR1)	9.30	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions
-Foreign financial aid is necessary
-Urgent implementation is necessary in coordination with other related flood control and drainage improvement projects
-Appropriate land use is necessary

Development Impacts
-To protect the area from internal flooding
-To enhance beneficial land use
-To activate economic activity
-To improve sanitary conditions

Note: B/C ratio 1.90

5.TECHNICAL TRANSFER
Technical transfer was conducted during the site 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)

A portion of the urgent project composed of one pump station and improvement of drainage channel (4.1km) is being implemented by the JICA grand aid from FY1990 to 1992.

Feb. 1993. Project completed.
All facilities and services have been transferred to the Government of Bangladesh.

(FY1993 Overseas Survey)
Mar.,1990 to Jun.,1990, detailed design was carried out.
The implementation of the Project was completed on Mar.,1993 and handed over to the Government. Total amount was 684.59million Taka (including F.E. 498.13million Taka).

(FY1994 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
ADB completed F/S of FAP8B including an embankment portion under BWDB's responsibility in May 1992, followed by the construction with its loan amounting to $91.5M. It will be completed in 1996-97.
JICA's technical transfer was effective, and a pumping station, completed by the Japanese Grant Aid, has been smoothly operated since 1993 with sufficient stock of spareparts.

2.MAJOR REASONS FOR PRESENT STATUS
Implementation of this project became very urgent after the major flood in 1988.

3.PRINCIPAL SOURCE OF INFORMATION
①、② DWASA、③

和名 ダッカ市雨水排水施設整備計画（アフターケア）

(F/S,D/D)

PROJECT SUMMARY (F/S)

ASO BGD/S 304/89

Compiled Mar.1991
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY
Development of Chittagong Airport

3.SECTOR
Transportation/Air Transportaion & Airport

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Ministry of Civil Aviation and Tourism
Civil Aviation Authority of Bangladesh

7.OBJECTIVES OF STUDY
Preparation of a feasibility study on the improvement of existing Chittagong Airport

8.DATE OF S/W: 1988/8

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members 7

Period Nov.1988-Sep.1989(11 months)

Total M/M	Japan	Field
33.56	18.34	15.22

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey/Soil investigation

12.EXPENDITURE

Total	113,684 (¥'000)
Contracted	103,590

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Chittagong Airport

2.PROJECT COST (US$1,000) US$1=Taka 32.2

	Total Cost	Local Cost	Foreign Cost
1)	52,598	11,748	40,850
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
-Overlay of runway and rearrangement of runway strip in compliance of ICAO standards
-Construction of new terminal area (parking apron (B747:1, DC10:1, B737:2), taxiway, passenger terminal building (5,400 sq.m), cargo building (2,000 sq.m), control tower, car park (280 cars), access road and public utilities)
-Installation of air navigation facilities (lighting, radio, communications and meteorological facilities)
-Storm Water Drainage

Imp. Period: 1990. -1994.

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

EIRR1)	15.00	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
-Contribution to calamity preparedness as a major relief base
-Improvement of user convenience and activation of regional economy by solving the capacity problem of air transportation
-Enhancement of foreign investment by improved access to export processing zone
-Increase in employment opportunities
-Stimulation of international tourism development
-Assurance of air transport safety
-Reliability of air transport can be assured because Chittagong Airport would serve as an alternate airport of Zia International Airport

5.TECHNICAL TRANSFER
1) Planning and design of airport facilities;2) Evaluation method of aircraft noise on surrounding area; 3)Economic and financial assessment of airport project

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)
July. 1991 OECF Appraisal Mission
Sep. 1993 OECF L/A signed (33) million yen)
Development Project of Cittagong Airport (E/S)
(FY1991 Overseas Survey)
The investment interest of Japanese enterprises in the export processing zone becomes bigger. The needs to construct the international airport there is high.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1993 Overseas Survey)
In order to realize the implementation of the Project during May,1994 to June,1995, selecting the appropriate consultant.
As for the second international airport of the country, an alternate airport of Zia international airport and as a disaster relief center, the plan seems to be very appropriate, JICA's further cooperation including feasibility study, detailed design and preparation of the tender documents are requested.

(FY1994 Domestic Survey)
The contract agreemont of Engineering Services (E/S) financed by OECF was signed by CAAB and the consultant. The engineering services are under way to complete by July,1995. Beside the progress of the Engineering Services, OECF Loan will be arranged for the construction works. After completing on the Engineering Services (Retailed design, preparation of tender document), bidding and construction works are expected to be proceeded promptly.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
-Financial difficulties due to the shortage of foreign currency
-The accumulated debt

3.PRINCIPAL SOURCE OF INFORMATION
①、② Civil Aviation Authority

和名 チッタゴン国際空港開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

ASO BGD/S 305/89

Compiled Mar.1991
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY:
Optimization of Capacity Utilization and Improvement of Performance of Chittagong Dry Dock

3.SECTOR:
Transportation/Marine Transportation & Ships

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY:
Bangladesh Steel & Engineering Corporation (BSEC)

7.OBJECTIVES OF STUDY:
Study for the optimization of capacity utilization and improvement of performance of Chittagong Dry Dock Ltd.

8.DATE OF S/W: 1988/8

9.CONSULTANT(S):
Joint Venture/
Overseas Ships Building Cooperation Center
Mitsui Engineering & Shipbuilding Co., Ltd.

10.STUDY TEAM

No.of Members 8
Period Mar.1989-Feb.1990(11 months)

Total M/M	Japan	Field
45.04	29.17	15.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Study of the Repair Shipyard in Singapore(Result of Repair and Technical Assistant)

12.EXPENDITURE

Total	142,288 (¥'000)
Contracted	133,898

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Chittagong

2.PROJECT COST

(US$1,000)
(US$1=32.3 Taka)

	Total Cost	Local Cost	Foreign Cost
1)	8,972	3,306	5,665
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

(1) Slipway for small ship repair 18.30m X 145.00m

(2) Galvanizing Shop and Machinery and Equipment

(3) Plan of service capacity
1989/90 21 ships per year
2002/03 39 ships per year
2012/13 49 ships per year

(4) Biggest size of ship is 16,500 DWT cargo vessel.

Imp. Period: 1992.7-1994.7

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	27.00	FIRR1)	12.40
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Development Impacts:

1.expected FIRR 12.4% expected EIRR 27.0%

2.Increase of employment 130 direct emplesses, 180 sub-workers

3.Development of the related industries

The preject will contribute to a development and progress of the domestic related industries dealing with various materials and equipment required for daily operation of the shipyard.

5.TECHNICAL TRANSFER

Technical training for the counterparts was carried out by JICA's expense during this study

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1993 Overseas Survey)
According to the feasibility study of JICA, Taka 28 crore is required to implement the Project.
The main factor which delayed the implementation of the Project is the financial problems, since the project may be implemented only the fund becomes available from Governmental grant assistance from Japan or any other donor country.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

Because of internal problems within Bangladesh

3.PRINCIPAL SOURCE OF INFORMATION

①、② BSEC

和名 チッタゴン造船所整備計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1992
Revised Mar.1996

ASO BGD/A 303/90

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
Kurigram Irrigation and Flood Control Project - North Unit

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Bangladesh Water Development Board (BWDB)

7.OBJECTIVES OF STUDY
To formulate plans for irrigation and drainage development as well as flood control which will be toward the increase and improvement of agricultural products

8.DATE OF S/W 1989/2

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

10.STUDY TEAM
No.of Members 10
Period Jul.1989-Oct.1990(16 months)

Total M/M	Japan	Field
62.97	25.43	37.54

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic and canal survey
Soil mechanics and boring survey
Soil analysis Questionnaire survey

12.EXPENDITURE

Total	211,998 (¥'000)
Contracted	203,192

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The study area is located in 4 Upazilas ; Kurigram, Bhurumgamari, Fulbari and Nageswari in the Kurigram District, adjoining of the West Bengal of

2.PROJECT COST

(US$1,000) US$=148.5yen		Total Cost	Local Cost	Foreign Cost
	1)	98,826	45,655	53,171
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
To measure plans for irrigation, river flood embarkment, drainage facilities improvement and agricultural supporting systems.

- Communal area = 32,800ha
- Pump station for irrigation A=29,500ha,Q=42.8bu.m/sec.
- Reversible pump station for irrigation / drainage A=3,300ha, Q=4.9cub.m/sec.
- Improvement of embarkment and regulators
- Canals and relationship structures

Imp. Period: 1989.7-1990.10

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	19.70	FIRR1)	9.60
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The BWDB is responsible for planning and implementing irrigation, drainage and flood control, and for operation and maintenance due to the increase of agricultural products in the project area.

Surface water irrigation facilities with pumps and canals, coupled with the reduced level of flooding due to flood control and drainage work would induce the present level of cropping intensity from 177% to 244% and also contribute to increasing employment opportunity.

5.TECHNICAL TRANSFER
2 persons under BWDB received for technical training 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)
During the annual meeting of 1992, Bangladesh requested an OECF loan.
In Jun. 1990, OECF sent a pre-investigation mission. But did not adopt the plan as the electricity supply paln to the main pumping station was not clear. And further study and reconsiderartion are needed to adjust to the standard flood control policy of Bangladesh.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1993 Overseas Survey)
After completion of additional survey and detailed designing works, the preparation to secure finance will be started.
Involve more number of local consultants and involve more personnels of the Government of Bangladesh to the Project activities will be requested to JICA.

(FY1994 Domestic Survey)
Although further study is needed to modify the project, it is suspended due to the lack of fund.

(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
As the result of the fact-finding survey done by OECF in 1990, it was found that there was no idea to supply electric power for the pump stations. Therefore, the implementation of this project had been once suspended.
However, since this project covers the area used to suffer the flood disasters in every year, the construction of the drainage facilities, 22kmm of embankment and about 3km of power distribution line to the pump stations are planned and promoting with a high priority.
Financial cooperation is being requested to the Government of Japan.

2.MAJOR REASONS FOR PRESENT STATUS
Major Reasons for the Present status
Reconsideration and corrections to adjust with the standard flood control policy of Bangladesh.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③、⑤ BWDB

和名 クリグラム北部灌漑排水計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1992
Revised Mar.1996

ASO BGD/S 307/90

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
Development Project of Container Terminal at Dhaka-Narayanganj Port

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Bangladesh Inland-waterway Transport Authority (BIWTA)

7.OBJECTIVES OF STUDY
1) To prepare Master Plan for the development of a container terminal with a target year of 2005 and 2) Short-term Plan and F/S with a target year of 1995.

8.DATE OF S/W 1989/7

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
Nippon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 9
Period Nov.1989-Mar.1991(16 months)

Total M/M	Japan	Field
68.30	36.80	31.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
1) O/D investigation; 2) soil materials survey; 3) topographic survey and river-bed sounding

12.EXPENDITURE

Total	230,015 (¥'000)
Contracted	223,231

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Pangaon site on the south bank of the Buriganga River in Dhaka Port

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	46,381	16,970	29,411
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
*Construction of a new container terminal
1.Terminal area : 8ha
2.Berth length : 180m
3.Container gantry crane : 2
4.Straddle Carriers : 5
5.CFS : 1 shed
6.Terminal office
7.Access road : 3.6km

Imp. Period: 1993. -1995.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	14.70	FIRR1)	12.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Development Impacts:

1.Saving of inland transport cost for containers

2.Attraction and development of export-oriented industries generated by the establishment of the new container terminal

3.Regional development in and around the proposed project site

5.TECHNICAL TRANSFER
Sufficient technical transfer has been accomplished by face-to-face training from the study team members to the BIWTA's counterparts during the around 6-month stay of the members in Bangladesh.

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)

- Planning Commission of GOB instructed BIWTA to prepare a project paper for the combination of Cargo Handling Facilities and Container Terminal Projects in Apr. 1991.
- The Fessibility Study was approved officially by GOB in Sept. 1991.
- The request for Yen Loan of FY1992 of GOJ has been submitted by GOB at the end of Oct. 1991.

As of Mar. 1993:
The Government of Bangladesh has decided to implement the Development Project of Dhaka Port, combining this project and the Development Project of Dhaka and Narayanganj Port. The OECF carried out a project formation promoting survey during Sep.- Nov. 1992, dispatched an appraisal mission and agreed on the minutes of E/S in Dec. 1992.
L/A is in preparation.

(FY1992 Overseas Survey)
Waiting for the answer.

(FY1993 Overseas Survey)
This Project is treated as the same Project namingly "Development Project of Dhaka and Narayanganj Ports" by the Government of Bangladesh(see page 5).

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①, ②, ④ BIWTA

和名 ダッカ港コンテナ・ターミナル整備計画

(F/S,D/D)

PROJECT SUMMARY (M/P)

Compiled Mar.1993
Revised Mar.1996

ASO BGD/A 102/91

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
The Model Rural Development Project Phase II for Kachua, Nabinagar, Bancharampur and Debidwar Upazilas

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Bangladesh Rural Development Board (BRDB)
Local Gorvernment Engineering Bureau (LGEB)

7.OBJECTIVES OF STUDY
To formulate with long-term development strategies, the Master Plan of Model Rural Development Project Programme PhaseII (MRDP II) and to formulate the priority projects to be selected among the MRDP II.

8.DATE OF S/W 1989/12

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

10.STUDY TEAM

No.of Members	11	
Period	Sep.1990-Aug.1991(12 months)	
Total M/M	Japan	Field
57.23	21.30	35.93

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey, Tests of Soil, Geology and the Quality of Water, Interview and Questionnaire Survey

12.EXPENDITURE

Total	301,296 (¥'000)
Contracted	185,028

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kachua, Nabinagar, Bancharampur and Defidwar Upazilas, Old Comilla District

2.PROJECT COST

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	1)	309,469		
(US$1,000)	2)	104,980	10,771	30,446

3.CONTENTS OF MAJOR PROJECT(S)

Master Plan
(1) LLP Irrigation Development and Drainage Improvement Programme
(2) Fractional Pump Promotion Programme
(3) Crop Intensification and Diversification Programme
(4) Farm Input Supply Programme
(5) Model Farm Credit Programme
(6) Semi-Intensive Fish Pond Culture Development Programme
(7) Post Harvest Plants Expansion programme
(8) Upagila Food Frains Marketing Programme
(9) Joint Marketing Promotion Programme
(10) Feeder and Rural Roads Improvement Programme
(11) Growth Center Improvement Programme.

Priority Project
(1) Irrigation Development 34km ; (2) Fractional Pump 200nos.
(3) Road Improve. 14.1km ; (4) UCCA 4nos.
(5) Growth Center 4nos.

4.CONDITIONS AND DEVELOPMENT IMPACTS

[Conditions]
The quantified benefits consist of incremental crop and fishery production, the value accruing from the UCCA comple project and the value accruing from reduction of transportation and passengers' cost saving through the feeder Bond rural road improvement project.

[Development Impacts]
- Increase of employment opportunity
- Improvement of insufficient nutrition and elimination of poverty
- Improve communications and transport resulting from infrastructural development.

5.TECHNICAL TRANSFER
OJT

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(1) Master Plan Study of MRDP Phase I for Homna and Daudikandi Upazilas in Old Comilla District had been executed during the period from 1986 to 1987. Grant Aid for Homna and Daudikandi Upazilas was commenced from 1992. (1992-1993)
At the same time, Mini-project technical cooperation has been also executed.

(2) The Government of Bangladesh has not requested Grant Aid to the Government of Japan.

(FY 1993 Domestic Survey)
(3) There is no official request up to Jan.1993.

(FY1993 Overseas Survey)
Still awaiting for formal acceptance of financing by the Government of Japan.

(FY1994 Domestic Survey)
There is still no official request up to Dec. 1994.

(FY1995 Overseas Survey)
1. GOB is preparing the request for Grant Aid to the Government of Japan.
2. The project design was reviewed to be downsized to meet the proper scale of the Japanese Grant Aid.

2.MAJOR REASONS FOR PRESENT STATUS
Execution of MRDP II will be considered based on the results of the Project 'Phase I for Homna and Daudikandi Upazilas'.

3.PRINCIPAL SOURCE OF INFORMATION
①、② BRDB、③

和名 モデル農村開発計画 II

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1994
Revised Mar.1996

ASO BGD/S 202B/92

I. OUTLINE OF STUDY

1.COUNTRY Bangladesh

2.NAME OF STUDY
Greater Dhaka Protection Project(FAP8A)

3.SECTOR
Social Infrastructu/River & Erosion Control

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Ministry of Irrigation, Water Development and Flood Control. Flood Plan Coordination Organization.

7.OBJECTIVES OF STUDY
1. To formulate a M/P on a Comprehensive flood control and stormwater drainage for Dhaka Metropolitan Area.
2. To conduct a feasibility study on a flood control and stormwater drainage for the priority area identified in the M/P.

8.DATE OF S/W 1990/6

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members 14

Period Sep.1990-Mar.1991(7 months)

Total M/M	Japan	Field
113.14	15.49	97.65

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Land use, Flood drainage, Topographic and Environment Survey. Soil investigation, Preparation of Topographic map.

12.EXPENDITURE
Total 480,809 (¥000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Greater Dhaka East of Greater Dhaka Area, DND and West part of Narayanganj Area
(A=194,04km2)

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	1,700,225	1,102,958	597,267
	2)	749,667	372,945	376,722
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
*(R) is Rehabilitation
<M/P>(1991-2010):Total Project Cost TK 61,208 Mil.
1)Structural Measures
1 Embankment (R) / 16.7km
2 Embankment / 108.3km
3 Flood Wall(R) / 24.9km
4 Flood Wall / 55.4km
5 Sluice Gate/ 57 pls
6 Pump Station / 16 pls
7 Khal Improvement / 241.4km
8 Drainage Pipe / 17.0km
9 Retarding Pond / 4192 ha
2)Non-Structural Measures
1 Rainforcement and Improvement of Flood Forecasting and Warning System
2 Construction (or Improve) of evacuation road networks and flood shelters : 4 Flood Prone Area

<F/S>

	Greater Dhaka Area	DND of Narayanganji	Narayanganji West
Embankment	27.52km	-----	11.89km
Sub-Embankment	17.42km	-----	-----
Road-Cum-Embankment	-----	-----	4.10km
Flood Wall	21.27km	3.38km	11.48km
Flood Wall(R)	-----	25.20km	-----
Sluice Gate	7 pls	1 pls	14 pls
Pump Station	180.5m3/s(4)	64.7m3/s(2)	12.2m3/s( )
Stop Log	-----	58 pls	17 pls
Retarding Basin	18.95x1,000,000m3	6.81x1,000,000m3	1.28x1,000,000m3
Khal Improvement	73.2km	51.2km	17.2km
Bridge	13 No.	40 No.	14 No.

Imp. Period: 1992. -2010. 1996. -2009. 1999. -2004.

4.FEASIBILITY AND ITS ASSUMPTIONS Peasibility: Yes

EIRR1)	15.80	FIRR1)	
EIRR2)	14.50	FIRR2)	
EIRR3)	14.30	FIRR3)	

Conditions and Development Impacts:
[Basic Condition]<M/P>1.Scale of Flood Protection: Floods of a 100 year frequency or the scale of the 1988 flood.
2.The structural measures is proposed to eliminate flood problems in an area of 453 km2. 3.Scale of stormwater Drainage Improvement: Disign flood stage of 2-year frequency, 2-day consecutive rainfall with a 5-year frequency were applied.
<F/S> 1.Scale of Flood Protection: 100-year floods frequency
2.To eliminate flood pvoblems in the future urban area buy the target year 2010.
3.Greater Dhaka area was divided into 4 compartments in order to increase safety and to facilitate a phased development.
4.Scale of stormwater Drainage Improvement: 2-day consecutive rainfall with a 5-year frequency.
5.Retarding areas were proposed in low- lying areas.
[Development Impacts]<M/P,F/S>
Reduction of flood/Stormwater damage and promotion of areal development.

5.TECHNICAL TRANSFER
Technical transfer was carried out through the occation of explanation and discussion on the reports.And also technical transfer was made for 1)Designing of Culvert 2)Operation & Maintenance of the Pump Station.

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)
Project realization is not confirmed.

(FY1993 Overseas Survey)
No commitment from Donors for conducting the detail design and implementation has yet been received.
Eastern part of the Greater Dhaka Flood Protection Project is under preparation by Bangladesh Water Development Board (BWDB).

(FY1994 Domestic Survey)<Notes>
Donor meeting is planned to be held at Dhaka city on Dec.1994. On this meeting policy of each donor country or international organization will be discussed.

(FY1995 Domestic Survey)
Planned Donor meeting on Dec. 1994 had been cancelled. However, it will be held on around Sep. 1995 in Dhaka.

(FY1995 Domestic Survey)
It may take some time to decide priority among six(6) blocks of the project, because the construction cost will be as large as $740M. There is another altanative to consider the east embankment as a part of the N-S Trans Bangladesh Trunk Highway (Chittagon - Dhaka - N.W.) which passes the Jamna Bridge under construction.

2.MAJOR REASONS FOR PRESENT STATUS
Delayed due to the coordination problems among Governmental Organizations concerned(DMDP).
Necessary to find the donor country for financing.

3.PRINCIPAL SOURCE OF INFORMATION
① Ministry of Irrigation, ③

和名 ダッカ首都圏洪水防御・雨水排水計画

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1994
Revised Mar.1996

ASO BGD/S 203B/92

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY: River & Erosion Control / Drainage Improvement in North West Region

3.SECTOR: Social Infrastructu/River & Erosion Control

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY: Flood Plan Coordination Organization, Ministry of Irrigation

7.OBJECTIVES OF STUDY: Formulating a master plan for flood control and drainage improvement

8.DATE OF S/W: 1990/6

9.CONSULTANT(S): Nippon Koei Co., Ltd.
Nikken Consultants., Inc.

10.STUDY TEAM

No.of Members 9

Period Jan.1991-Jan.1993(25 months)

Total M/M	Japan	Field
82.67	1.26	81.41

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: Topographic and Geological Survey, Soil Test

12.EXPENDITURE

Total	351,342 (¥'000)
Contracted	320,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: North West Region (34,600km2)

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	865,000		
	2)	42,932	11,249	31,683
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

<M/P> Stagewize Development Plan established
1) Short-term plan (1993-1997: Investment Cost US$580 million)
Gaibandha Improvement, Lower Atrai (Folder C&D), L.Jamuna Right Bank, Other FAP projects and On-going projects (Bogra Polder 2 and Gazaria Ichamati)
2) Mid-term plan (1998-2007: Investment Cost US$285 million)
Lower Atrai (polder A&B), Teesta Left Bank, Bogra Polder 3 and On-going projects
3) Long-term plan after 2007
Hurasagar, Mohananda Right Bnak and Upper Karatoya/Bangali Floodway

<F/S> The following measures were planned to be provided to mitigate the flood damage from the neighbouring rivers in and around the project area;
1) Teesta Right Embankment
2) Ghagot river
3) Drainage improvement in the project area
4) Flood profing and associated development/improvement works for fisheries, helth and navigation

Imp. Period: 1993. -2003.

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

EIRR1)	10.00	EIRR1)	
EIRR2)		EIRR2)	
EIRR3)		EIRR3)	

Conditions and Development Impacts:

<M/P> 1)Planning concepts -Design scale: probable flood with a return period of 20 years -Minimizing adverse effect due to provision of flood control and drainage facilities -Maintaining consistency with the existing project in the North West Region -Applying basic concepts of FAP projects, controlled flooding, compartmentalisation and flood proofing.
2)Criteria for establishing the Master Plan -Economic effectiveness(mitigable flood damage, enhancement of land use and increase of paddy product, and construction cost) -Degree of influence against social and natural environment -Scale of the project -Benefits for landless peoples.
<F/S> The mentioned measures were selected based on hydraulic modelling for the design flood with return period of 20 years, construction costs and project benefits, degree of influence against natural and soicial environment. The major benefits of the project are sustainability of stable agricultural product in the area to be eroded along the Teesta river by provision of river training works, stabilization of living of

5.TECHNICAL TRANSFER: Planning procedures and methods adopted for flood control and drainage projects in Japan was explained and transferred to local engineers by means of the 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)

FAP 2 study was undertaken as one of FAP projects consisting of 26 projects and completed in Jan. 1993, though Technical Committee Meeting has not been held. Other FAP projects, however, is still being carried out.

To proceed the proposed projects by FAP 2 study to the next stages, it is required to adjust the result of FAP 2 study based on result of other FAP projects or coordinate with the proposed projects by other FAP study.

While, the FAP 2 study, a regional study, was completed earlier than other FAP projects. Therefore, our study results are considered to provide suggestion for formulating flood control and drainage plan in other regional and supplemental studies.

(FY1993 Overseas Survey)
For the North-Western Area, Improvement of rivers at Gaibandha and Lower Atrai river should be given the top priority, and waiting for the implementation.
The actions to provide necessary fund should be taken more quicker. Among 26 projects covering whole territory of the country, FAP-13 has been completed the survey works of phase 2, and waiting for the approval of Government. Both Japan and U.K. suggest their interest to finance on this Project (Period of Implementation will be from Oct.,1993 to Dec.,1996).
Willing to receive from Donors for conducting the detailad design.

(FY1994 Domestic Survey)
Almost all of the FAP studies are to be completed withim this fiscal year and adjustment among the FAPs will be done towards implementation of priority project in the next year.
ADB seems to have keen interest of the 'Gaibandha Improvement Project' which is a priority project of FAP-2.

(FY1995 Domestic Survey)
FPCO have took up 'Gaibandha Improvement Project' as for the prior project. However, since the arrangement among the whole of FAP is not completed as yet, it seems to take rather long period until the commencement of the implementation.

(FY1995 Overseas Survey)
FAP1(Bramaputra Training) has started its construction by IDA. ADB has just approved a technical assistance amounting to more than $1 million for assessing ecnomic,social and environmental impact to the N-W region by the construction of the Jamna Bridge in December, 1995.

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION: ①、② Ministry of Irrigation、③

和名 北西地域洪水防御排水計画

Continued on (M/P+F/S)

状況（要約表添付文書）

ASO BGD/S 203B/92 (M/P+F/S)

Name of River & Erosion Control / Drainage Improvement in North West Region Study

Country Bangladesh

Type of Study M/P+F/S

Sector Social Infrastructu/River & Erosion Control

Present Status: Promoting

(Description)

FAP 2 study was undertaken as one of FAP projects consisting of 26 projects and completed in Jan. 1993, though Technical Committee Meeting has not been held. Other FAP projects, however, is still being carried out.

To proceed the proposed projects by FAP 2 study to the next stages, it is required to adjust the result of FAP 2 study based on result of other FAP projects or coordinate with the proposed projects by other FAP study.

While, the FAP 2 study, a regional study, was completed earlier than other FAP projects. Therefore, our study results are considered to provide suggestion for formulating flood control and drainage plan in other regional and supplemental studies.

(FY1993 Overseas Survey)
For the North-Western Area, Improvement of rivers at Gaibandha and Lower Atrai river should be given the top priority, and waiting for the implementation.
The actions to provide necessary fund should be taken more quicker. Among 26 projects covering whole territory of the country, FAP-13 has been completed the survey works of phase 2, and waiting for the approval of Government. Both Japan and U.K. suggest their interest to finance on this Project (Period of Implementation will be from Oct.,1993 to Dec.,1996).
Willing to receive from Donors for conducting the detailad design.

(FY1994 Domestic Survey)
Almost all of the FAP studies are to be completed withim this fiscal year and adjustment among the FAPs will be done towards implementation of priority project in the next year.
ADB seems to have keen interest of the "Gaibandha Improvement Project" which is a priority project of FAP-2.

(FY1995 Domestic Survey)
FPCO have took up "Gaibandha Improvement Project" as for the prior project. However, since the arrangement among the whole of FAP is not completed as yet, it seems to take rather long period until the commencement of the implementation.

(FY1995 Overseas Survey)
FAP1(Bramaputra Training) has started its construction by IDA. ADB has just approved a technical assistance amounting to more than $1 million for assessing ecnomic,social and environmental impact to the N-W region by the construction of the Jamna Bridge in December, 1995. Relative feasibilities and priorities of the various projects will be affected by the factors such as poverty, environment and people's participation,which are considered in addition to economic evaluation as was already done.

PROJECT SUMMARY (F/S)

Compiled Mar.1994
Revised Mar.1996

ASO BGD/A 304/92

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY:
Kurigram Irrigation and Flood Control Project -South Unit-

3.SECTOR:
Agriculture/Irrigation, Drainage & Reclamation

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY:
Bangladesh Water Development Board

7.OBJECTIVES OF STUDY:
he objective is to increase in the agricultural productions by provision of water for irrigation ,improvement of drainage system and prevention of annual flooding

8.DATE OF S/W: 1991/8

9.CONSULTANT(S):
Nippon Koei Co., Ltd.
Chuo Kaihatsu Cor.

10.STUDY TEAM

No.of Members 11
Period Dec.1991-Mar.1993(16 months)

Total M/M	Japan	Field
76.18	23.58	52.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Topo-Survey, Geological Survey, Chemical Analysis of Water, Plan survey, Route Survey, Farm Economy Survey, Farmers Intention survey

12.EXPENDITURE

Total	262,292 (¥'000)
Contracted	251,576

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Nothwest Region adjaient to Indea, 59,400ha bounded by the existing embanement

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	58,700	42,700	16,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Irrigation : Existing farm land of 35,500ha will be irrigated the rough coujunctive use of both groundwater and surface water, and percentage of planting will be higher from 190% to 224%
2. Drainage Improvement : Draining network will be improved through rehabilitation works of exitsting drainege channels
3. Flood control : Rehabilitation of the existing flood bankment.
4. Rural infrastructure : new bridge : 30 infrestruction
reconstruction bridge :52
culvert :9

Imp. Period: 1994. -2003.

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

EIRR1)	28.50	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
* Imp. Periode are 1) D/D 2 years, 2) Phase I 4 years, 3) Phase II 4 years,
Total 10 years.

Conditions:
same as Flood Plan Coordinatio Organization, 30 years of project

Impact:
Project impact analysis show the net revenue will increase in every class of farmer sizes. In addition, social impacts are expected in terms of increase in employment opportunity, increase in land value and improvement of local transportation.

5.TECHNICAL TRANSFER:
Technical transfer was made through joint work in the field study.
Training in Japan (one person)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Government of Bamphader have aan intention to implement the project, however, implementation will delay depending on the FAP studies.

(FY1993 Overseas Survey)
Necessary documents of the Project (Phase-1) has been prepared and submitted by the project Authority to obtain administrative approval from the Government.
The Government of Japan has shown interest in financing Phase-1 works under Japan's Grant Assistance. But, not negotiated as yet.
Hoping to involve more local consultants and the staff of the government of recipient country.

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

(FY1995 Overseas Survey)
The grant aid for this project has already been requested GOB plans to implement the embankment by their own.
This project has been given high priority as it covers the area where is used to suffer the flood disaster in every year.
Construction of the drainage facilities and extension of embnkment for flood protection are planned.

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION:
①、②、③、⑥ BWDB

和名 クリグラム南部灌漑排水計画

{F/S,D/D}

PROJECT SUMMARY (Basic Study)

Compiled Sep.1995
Revised Mar.1996

ASO BGD/S 501/94

I. OUTLINE OF STUDY

1.COUNTRY: Bangladesh

2.NAME OF STUDY
Geodetic Survey in the People's Republic of Bangladesh

3.SECTOR
Social Infrastructu/Survey & Mapping

4.REFERENCE NO.

5.TYPE OF STUDY: Basic Study

6.COUNTERPART AGENCY
Survey of Bangladesh (SOB)

7.OBJECTIVES OF STUDY
To rearrange the network of the datum lines/ points for survey of the country.
Technological transfer to SOB.

8.DATE OF S/W: 1991/12

9.CONSULTANT(S)
International Engineering Consultants Association

10.STUDY TEAM
No.of Members 35
Period Apr.1992-Mar.1995(36 months)

Total M/M	Japan	Field
330.00	96.00	234.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Construction of tide examination station, Operation to bury stones

12.EXPENDITURE
Total (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Approximately 70% of the shole area of Bangladesh

2.PROJECT COST
(US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)			
2)			

3.CONTENTS OF MAJOR PROJECT(S)
1)To draw up the plan to protect flood disasters.
2)To draw up the topographic maps of Dhaka metropolitan zone.
3)To rearrenge the network of secondary datum lines.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development impacts are not appeared as yet because this survey works finixhed very recently. However, it will be expected the considerable effects in future as this survey works should be the foundation for every development plan.

5.TECHNICAL TRANSFER
Method of survey of datum points by means of GPS, Method of Analysis and observation for tide examination.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Development impacts are not imformed since the survey works had completed on this year. A seminar of this survey works is planned to be held until Sep.,1995. On this occasion, the effects of this project will be announced and published.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 国土測地基準点網整備計画調査

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO BTN/A 301/88

I. OUTLINE OF STUDY

1.COUNTRY Bhutan

2.NAME OF STUDY
Luntch-Mongar Integrated Agricultural Development Project

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department of Agriculture, Ministry of Agriculture and Forestry

7.OBJECTIVES OF STUDY
To formulate an Integrated Agricultural Development plan for the object area and to assess its technical soundness and economic viability.

8.DATE OF S/W 1986/7

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

10.STUDY TEAM
No.of Members 7
Period Dec.1987-Nov.1988(12 months)

Total M/M	Japan	Field
42.10	10.00	32.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	137,883 (¥'000)
Contracted	131,476

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Lhuntsi and Mongar Districts(Area:560,000ha, Population-Lhuntsi District: 42,100, Mongar District:77,200)

2.PROJECT COST

(US$1,000) US$1=14Nu.		Total Cost	Local Cost	Foreign Cost
	1)	8,586	2,336	6,250
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Following two projects were proposed as model development:

Main components	Tangmachhu area	Masandagaza
area		
Project area	476ha	125ha
Intake(new)	3 sites	2 sites
Main canal(rehabilitation)	12.6km	9.5km
Main canal(new construction)	0	0.9km
Secondary canal(rehabilitation)	0.5km	0
Secondary canal(new const.)	0.4km	0.4km
Feeder road	5.4km	2.4km
Agro-processing factory	1 site/90m2	-
Agriculture machanization	proposed	proposed
Agri. mechanization centre	Establish one branch in Mogar prefecture for both areas.	
Agri. extension office	One office will be established in Lingmethang.	
Trial cum demonstration farm	5 places	3 places
Agri. machinery for the farm	one-set	one-set

Imp. Period: 1989.7-1992.3

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	4.60	FIRR1)
EIRR2)	3.80	FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Condition:
Self-sufficiency in basic foods and improvement of income of farmers
Deterioration of imbalanced social welfare among regions in the country
Basic agricultural development concept is the integration in development.
Development of model areas
Economic benefit is assessed only on the irrigation projects.

Bnefits and impacts:
Rice production in Thangmachhu and Masangdaza area will be increased in 2.9 (1,100tons) times and 8.9 times (400tons) of present production. The land and labor productivity will be increased to about 3 times of present levels. Improvement of marketing of agri. products and inputs as well as informations and social welfare will be expected by construction of feeder road. Development model effects will be expanded smoothly by the road.

* EIRR 1) is for Tangmachhu and 2) is for Masangdaza.

5.TECHNICAL TRANSFER
Technology transfer to counterports in the course of the Study

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)
Bhutan government intended to request grant aid for the projects, but the present situation is unknown.

(FY1991 Overseas Survey)
Since IFAD project concerns both Mongar and Lhuntsi Dzongkhags, this project will either be delayed or shifted to other areas in future.

(FY1994 Domestic Survey)
The Bhutan government puts high priority on the implementation of another project and does not request this project.

(FY1995 Domestic Survey)
Official request to implememt this project is not submitted by the Bhutanese Government as yet.

(FY1995 Overseas Survey)
There is no possibility to implement this project because of the change of development policy and the convert of the donating country

2.MAJOR REASONS FOR PRESENT STATUS
Caused by the lower priority.

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 ルンチ・モンガル農業総合開発計画

{F/S,D/D}

PROJECT SUMMARY (Other)

Compiled Mar.1986
Revised Mar.1996

ASE BRN/S 601/83

I. OUTLINE OF STUDY

1.COUNTRY: Brunei

2.NAME OF STUDY
Improvement of Brunei Government Printing Department

3.SECTOR
Social Infrastructu/Archtecture & Housing

4.REFERENCE NO.

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY
Government Printing Dept.

7.OBJECTIVES OF STUDY
Proposal on improving of Government Printing Dept.

8.DATE OF S/W: /

9.CONSULTANT(S)
Kokuyo Co., Ltd.

10.STUDY TEAM

No.of Members 7

Period Sep.1983-Jan.1984(4 months)

Total M/M	Japan	Field
4.32	2.67	1.65

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	14,688 (¥'000)
Contracted	11,287

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
(US$1=232.2 yen)	1)	2,373		
	2)			

3.CONTENTS OF MAJOR PROJECT(S)

The Printing Department has been producing about 70% of governmental printed matters. The production has been increasing at an annual rate of 20%. Taking the 1982 index as 100, the order will grow 2.5 times by 1987. Then, taking into considerations several problems confronted by Printing Department and estimated future demand, proposals for addition of facilities and equipment and for improving management and administration will be presented in a specific manner:

(1) Plan for introduction of New Facilities;

Judging from the current production growth rate in the Printing Department, the production of Monocolor printing will be estimated by 7,680,000 m2/year against the installed capacity of 7,370,000 m2/year and Color Printing will be estimated by 12,330,000 m2/year against the installed capacity of 3,390,000 m2/year.

So, the supply and demand of Monocolor Printing is well balanced, but the capacity of Color Printing is in short by 3.5 times from the supply. Color printing machines (offset printing machines) will be further needed.

Together with the color printing machines, Binding machines and Graphic reproduction will be needed.

List of machine to be added;

- Sheeted offset printing machine 4 sets
- Binding machines and the related 7 sets
- Color Scanner for graphic reproduction 1 set

4.CONDITIONS AND DEVELOPMENT IMPACTS

(Conditions) Before increasing machines and equipments and also before changing Layout Plan, new warehouses scheduled to be built in 1984 will store only materials from the old storehouse.

(Development Impacts) The benefits obtained from the program:

(1) Improved production efficiency;

At the end of the project, available staff and worker will be 185 instead of the present 128, 1.45 times higher and the production capacity will be 2.07 times that in 1983. That is, the production efficiency per worker will increase about 43% in total.

(2) Maneuverable production system;

Addition of machines as well as improvement of layout of installed machines and of plant administration will substantially increase production capacity. In addition, the extensive reformation of the binding section will help to reduce the total production time.

Further, the improvement of the distribution system and the addition of distributing machines will permit quick distribution.

These results will realize quicker delivery than before.

(3) Technological improvement;

Machine operation technique will be hopefully improved through the introduction of new machines under the present project. Particularly, one colour scanner for graphic reproduction and various new machines for high-quality binding will bring about dramatic technical improvements in these fields. The technical ability in printing, binding and graphic reproduction fields will also be cultivated through the intensified technical education and training carried out by Printing Department.

This will provide the foundation, on which Printing Department can advance to new fields.

5.TECHNICAL TRANSFER
OJT

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

- ☐ In Progress or In Use
- ☐ Delayed
- ■ Discontinued

(Description)

(FY1991 Overseas Survey)

The JICA report did not include the provision of new buildings but recommended that the existing building be modified. This recommendation was not taken up because any modifications would have put the printing section out of action for a year. Discussions were held with the Ministries of Development and of Finance at that time and expansion plans for the buildings and equipment were approved, and in due course implemented. Current volume of production exceeded the projections of the JICA report by about 3-4 times, and the market value of printing undertaken by the Dept. increased from between B$3-4 million to B$9 million. The floor space roughly tripled and the Dept. currently employs 300 persons. Since the JICA study, some 20 employees (mainly operational and supervising staff) have been sent to Germany and the United Kingdom for training in factories or to take up relevant professional courses for instructors. The Dept. now has its own in-plant training program in printing skills. In view of the countries where the staff were sent for training, most of the machinery and equipment currently used are from the European countries. The Printing Dept. wants to keep alive the cooperation with JICA, both technical and financial. The Director of the Dept. would like to run a proper training school to produce skilled workers in printing, not only to service the public sector but also the private sector where most of the workers are currently expatriates. This is one of the possible areas for future JICA assistance.

(FY1993 Overseas Survey)

No change is reported.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
②

和名 印刷局改善計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1988
Revised Mar.1996

ASE BRN/S 101/85

I. OUTLINE OF STUDY

1.COUNTRY Brunei

2.NAME OF STUDY
Public Transport System in Negara Brunei Darussalam

3.SECTOR
Transportation/(Transportation in)General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Land Transport Dept.

7.OBJECTIVES OF STUDY
Preparation of a Master Plan for the improvement and an intermediate programme of the Public Transport System

8.DATE OF S/W 1984/3

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

10.STUDY TEAM

No.of Members 9

Period Jul.1984-Mar.1985(8 months)
Jun.1985-Jul.1985

Total M/M	Japan	Field
33.63	19.20	14.43

11.ASSOCIATED AND/OR SUBCONTRACIED STUDY
None

12.EXPENDITURE

Total	93,943 (¥'000)
Contracted	82,647

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Urban area and its outskirts

2.PROJECT COST

(US$1,000)
B$1=US$0.48

	Total Cost	Local Cost	Foreign Cost
1)	72,900		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

1) Improvement Plan of Public Bus System
   - Purchase 235 new buses
   - Strengthen bus network and its operation
   - Improve bus terminals, bus stops, operation offices and workshops
2) Improvement Plan of Taxi System
   - Construction of taxi stations
   - Introduction of radio equiped taxis
3) Relevant Improvement Plan
   - Improvement of arterial road network
   - Introduction of grade separated intersections
   - Improvement of traffic control system

4.CONDITIONS AND DEVELOPMENT IMPACTS

1) Future population and GDP in 1995 were estimated as the basic conditions of future traffic forecast.
2) The types of benefits such as the savings of vehicle operating costs and passenger's time costs are applied.
3) The Economic IRR of the period is assumed 30.7% during the period of 20 years after completion of the project.
4) The Financial IRR of corporation for the public bus operation is assumed only 2.0%, therefore, Government financial supports are necessary.

5.TECHNICAL TRANSFER

1) On the job training
2) Cooperative work for the report preparation

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

- ☐ In Progress or In Use
- ■ Delayed
- ☐ Discontinued

(Description)

(FY1991 Overseas Survey)
The Land Transport Dept. submitted the Report of the Master Plan Study to the Ministry of Communications with a recommendation that suggested feasibility studies be undertaken in phases. However, no definite decision has been made. According to the unofficial comment made by the Director fo Land Transport Dept., the Japanese government is expected to undertake F/S proposed by this M/P.

(FY1992 Overseas Survey)
No additional information.

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

2.MAJOR REASONS FOR PRESENT STATUS
Unknown

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 公共交通網整備計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (Basic Study)

Compiled Mar.1995
Revised Mar.1996

ASE BRN/A 503/93

I. OUTLINE OF STUDY

1.COUNTRY Brunei

2.NAME OF STUDY
Development Survey on the Forest Resources in Brunei Darussalam

3.SECTOR
Forestry/Forestry & Forest Conservation

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
Ministry of Industry and Primary Resources

7.OBJECTIVES OF STUDY
To prepare topographic, soil and vegetation maps in the model Plantation Area and to recommende on the forest operation. To prepare vegetation map inside the National Park Area and to formulate forest management guideline for the National Park.

8.DATE OF S/W 1991/11

9.CONSULTANT(S)
Japan Forest Civil Engineering Consultants Founda
Pasco International Inc.

10.STUDY TEAM

No.of Members 12

Period Mar.1992-Mar.1994(24 months)

Total M/M	Japan	Field
96.40	48.60	47.80

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Aerial photography, Development/Printing

12.EXPENDITURE

Total	393,685 (¥'000)
Contracted	378,590

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
-Western part : Daerah Tutuong/Daerah Belait
-Eastern part : Daerah Temburong

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

1)50,000ha Model Plantation Area in the western part of the country.
1.A forest resource survey and soil survey were conducted and vegetation maps, soil maps and a forest inventry book were prepared.
2.A forest operation guidline were fomulated for the Model Plantation Area by comprehensively taking the various results mentioned above into consideration. Except for swamp forest, the plan formulated by the Forestry Department of Brunei Darussalam was in favor uniform clear cutting and development in large areas. The recommended guidline proposed a layout of afforestation of small areas, natural forestry operations, prohibition of felling and other measures in mosaic form in accordance with the landforms, soils and existing vegetation types.
2)10,000ha in National Park Area in the eastern part of the country.
1.A vegetation map were prepared based on the results of study of stand composition.
2.A forest conservation survey and analysis of scenes were conducted and a National Park utilization and facilities plan were prepared with a focus on conserving the present status.
3.A comprehensive of various survey results was performed and a forest management guideline tailored to eco-tourism were prepared.

4.CONDITIONS AND DEVELOPMENT IMPACTS

[Preconditions]
1)Model Plantation Area
1.Improvements and expansions of a forest road system are indispensable to carry out carefully thought out forestry operations based on the guideline.
2.At present, timber is skidded and transported by large tractors and trucks. Skidding trails and feeders are causing extensive erosion. Erosion control works such as fascine wicker work should be undertaken.
2)National Park Area
1.The state as whole needs to deal with the problem of establishing a structure to promote eco-tourism. An example is publicity and advertising, hotels and transportation means.

[Effects of Development]
1.The watersheds of the Tutong and Belait Rivers widely abound with abandoned farm and secondary forests. Sustainable timber supplies can be achieved in the future by performing forestry operations in these areas in accordance with the guideline.
2.Tropical rain forests in a virgin state can be observed very near in the Temburong National Park. Suitable forest management as illustrated in the guideline will increase eco-tourists and will enhance the image of Brunei Darussalam.

5.TECHNICAL TRANSFER
1.Joint study and joint survey such as a forest resource survey, soil survey and stand composition survey. 2.Discussion related to the progress report. 3.Techonology transfer seminar. 4.Training in Japan.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
1.The Forestry Department of Brunei Darussalam is conducting forest development of 300 to 400ha per year in the watershed of Belait River through the National Forestry Policy. These measures call for clear cutting and afforestation in large areas by joining cutting blocks.
Erosion has occurred in the entire area already and damage by insects and pests is feared in the future.
Implementation of forestry operations which are carefully thought out and which meet the guideline, paying due consideration to environmental coservation, is strongly desired.
2.The Forestry Department of Brunei Darussalam has already started efforts to improve and expand park utilization facilities. The management, lodging and other facilities to be built in the future should be built at sites outside of the National Park adjacent to the National Park as indicated in the guidline.

(FY1995 Domestic Survey)
1) The improvement works of facilities at the Temburong National Park are especially and quickly carried out.
2) It is learnt that the forest improvement works which are included in 7th National Development Plan (for 5 years from 1996), will be based on the results of this survey works.

(FY1995 Overseas Survey)
The survey area was reduced compare with the original plan considerably due to the lack of fund. The scale of the topographical maps are also changed from 1/10,000 to 1/20,000 and not cover whole area of afforestration.
Brunei wishes to have an adequate financing, minium necessary sruvey works and the technical transfer as much as possible.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①, ②

和名 森林資源調査

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASO KHM/S 201/93

Compiled Mar.1995
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: Cambodia

2.NAME OF STUDY: Phnom Penh Water Supply System

3.SECTOR: Public Utilities/Water Supply

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY: Phnom Penh Water Supply Authority

7.OBJECTIVES OF STUDY: Formulation of M/P, Basic study on the urgent rehabilitation works

8.DATE OF S/W: 1992/10

9.CONSULTANT(S): Tokyo Engineering Consultants Co., Ltd.
Nihon Suido Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 19

Period Jan.1993-Dec.1993(12 months)

Total M/M	Japan	Field
66.21	29.86	36.35

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: Trial digging
Topographical Survey, Soil boring

12.EXPENDITURE

Total	272,656 (¥'000)
Contracted	247,804

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Phnom Penh city

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	575,560	135,260	440,300
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

1.Urgent rehabilitation works
1-1.Rehabilitation of existing facilities, particularly Phum Prek treatment Plant.
1-2.Expansion of Phum Prek treatment plant (50,000m3/day).

2.Expansion works
2-1.Rehabilitation and improvement of destribution system.
2-2.Construction of Cham treatment plant (130,000m3/day).
2-3.Development of destribution system.

3.Basic Study
Same as 1-1. above

Imp. Period: 1994. -2010.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	FIRR1)	2.70	
EIRR2)	FIRR2)		
EIRR3)	FIRR3)		

Conditions and Development Impacts:

1.Supply amount is recovered to 100,000m3/day from 56,000m3/day through improvement of electrical system.
2.Water quality is improved due to stoppage of seepage of storm water and sewage through recovery of destribution pressure.
3.Beneficiary population will be 260,000 in 1996 and 910,000 in 2010.
4.Water quantity supplied will increase from 100 litres per capita per day to 200.
5.Through grant aid program, the above 1 and 2 will be obtained.

5.TECHNICAL TRANSFER: Water quality analysis, Measurement of destribution pressure, Estimation of water demand, Leakage survey

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)

All but expansion of Phum Prek treatment plant, recommended in M/P, is being implemented as Japan's grant aid system.
(1)Construction started in July 1994
-Consturuction of transmission pump in Phum Prek treatment plant (PPTP).
-Construction of pump room
-Installation of transmission pipe (500mm)
-Rehabilitation of elevated tank
-Installation of pressure control valves
(2)Design started in August 1994
-Improvement of electric equipment in PPTP.
-Construction of service reservoir
-Installation of destribution pipes and meters
-Supply of cover joints for repairing pipes
Jul.1994 : Japan's Grant Aid E/N was concluded (1,771mil. yen)
Kubota Construction received an order for the construction of this(980mil, yen).

(FY1995 Domestic Survey)
Nov. 1994: Kubota Co., Ltd. has been ordered the 2nd phase construction works (1.6109 billion Yen)
Feb. 1995: The 1st phase construction works has been completed.

(FY1995 Overseas Survey)
Dec. 1994: The 2nd phase construction works was started.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION: ①、②

和名 プノンペン市上水道整備計画調査

{M/P+F/S}

PROJECT SUMMARY (M/P+F/S)

Compiled Sep.1995
Revised Mar.1996

ASO KHM/A 201/94

I. OUTLINE OF STUDY

1.COUNTRY: Cambodia

2.NAME OF STUDY:
Integrated Agricultural and Rural Development Project in Suburbs of Phnom Penh

3.SECTOR:
Agriculture/Irrigation, Drainage & Reclamation

4.REFERENCE NO.:

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

6.COUNTERPART AGENCY:
Ministry of Agriculture

7.OBJECTIVES OF STUDY:
Formulation of the Master Plan on rural area development including arrangement of the basic foundation of the rural areas such as irrigation etc., improvement of agricultural techniques and living standard for farm households. Feasibility study on the selected model area.

8.DATE OF S/W: /

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

10.STUDY TEAM

No.of Members 10

Period Mar.1993-Mar.1995(24 months)

Total M/M	Japan	Field
70.67	30.36	40.31

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:
Soil Test, Geological Survey, Topographic Survey, Water Quality Test, Pumping Test, Topographic Mapping and Settlement of Various Facilities for

12.EXPENDITURE

Total	246,936 (¥'000)
Contracted	

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA:
Tonle Bati area at Takeo Province, Kandal Stung area at Kandal Pvovince

2.PROJECT COST (US$1,000)

M/P	1)	66,800 Local Cost	23,160 Foreign Cost	43,640
	2)			
F/S	1)			
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

1) Irrigation drainage project :
Modification and repair of existing facilities and establishment of additional facilities in Tonle Bati area (approx.6,000ha) and Kandal Stung area (approx.10,000ha).
2) Reinforcement of Agricultural support services :
Improvement of Agriculture Development Center (including establishment of new facilities), reinforcement of supplying capacity of various farming equipment and materials, and settlement of model farms.
3) Organization of farmers association to improve the living standard :
Establishment of an union for water distribution, expansion and improvement of the Development Center and branches, training of staff and supply of necessary equipment.
4) Infrastructure for rural area :
Improvement of water supply, farm roads schools and clinics, etc.

Imp. Period:

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

EIRR1)	12.00	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Conditions]
In the first phase the project will be implemented at 1,600ha in Tonle Bati area and 1,950ha in Kandal Stung area. In addition, taking back to Prekt Not Dam is essential.

[Development Impacts]
1) Increase of agricultural products :
Chaff 14,500t/y, Corn 1,500t/y, Soybeans 760t/y, Vegetables 5,100t/y, Piggs 2,700/y
2) Farmers' economy :
Revenue ie expected to increase by 3 to 5 times of the present level.
3) Improvement of living standard :
Stabilization of rural life and society.

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)
The Government of Canbodia requested the assistance to implement this project to the Government of Japan. However, the implementation has been delayed without a clear reason (it seems to be security problems).

(FY1995 Overseas Survey)
The Ministry of Agriculture, Forestry and Fishery requested a grant aid to the Japanese Government on August,1994 and hopes that JICA will start to implement the project as soon as possible.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 プノンペン周辺地域農村総合開発計画

(M/P+F/S)

PROJECT SUMMARY (Other)

ASO CHN/S 601/79

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Port Construction

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY
National Basic Construction Committee

7.OBJECTIVES OF STUDY

8.DATE OF S/W /

9.CONSULTANT(S)
Overseas Coastal Area Development Institute

10.STUDY TEAM
No.of Members 11
Period Jan.1980-Feb.1980(1 months)

Total M/M | Japan | Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 8,186 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Shijiusuo and Qinhuangdao

2.PROJECT COST
(US$1,000) | Total Cost | Local Cost | Foreign Cost
1)
2)

3.CONTENTS OF MAJOR PROJECT(S)
Feasibility study on Shijiusuo as a port of coal export and iron ore import and on Qinhuangdao as a port of coal export.

4.CONDITIONS AND DEVELOPMENT IMPACTS
By the development of exclusive coal berth and exclusive iron ore berth for large vessel and efficient cargo handling, it is possible to reduce transportation cost for imported iron ore, decrease cost for steel goods, and make coal major export goods.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
OECF loans have been agreed as follows.

	Shijiusuo Port	Yanzhou-Shijiusuo Railway Construction	Beijing-Qinhuangdao Railway Improvement
Apr.1980	7,085	10,100	2,500
Dec.1981	9,660	3,110	11,200
Apr.1982	18,500	3,200	9,200
Oct.1982	2,300	11,800	30,900
Aug.1983	5,200	11,500	33,200
			(million yen)

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 港湾建設計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (Other)

Compiled Mar.1986
Revised Mar.1996

ASO CHN/S 602/81

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Railway Modernization Project

3.SECTOR: Transportation/Railway

4.REFERENCE NO.:

5.TYPE OF STUDY: Other

6.COUNTERPART AGENCY: Dept. of Railway

7.OBJECTIVES OF STUDY: Technical cooperation

8.DATE OF S/W: 1979/3

9.CONSULTANT(S):

10.STUDY TEAM

No.of Members 44

Period Jul.1979-Sep.1981(26 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total 47,756 (¥'000)

Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Beijing - Tianjin and Beijing - Hengyang

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

A group of long-term and short-term experts was assigned to assist for the modernization of Chinese railways.
Cooperation was centered on (1) technical guidance for renovating the sections between Beijing-Tianjing and between Beijing-Hengyang, (2) the survey on the transport capacity expansion and electrification of Beijing-Tianjing section, (3) the survey on the automation of the marshalling yards, and (4) the survey on the automation of train operations.

4.CONDITIONS AND DEVELOPMENT IMPACTS

The study will contribute to the modernization of Chinese railways.

5.TECHNICAL TRANSFER

1)Training in Japan.
2)OJT

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

(FY1994 Overseas Survey)
Technical guidance for Chinese Ministry of Railways(Jul. 1979 - Sep. 1981) contributed to the railway modernization in China.
1) Technical guidance to improve transportation capacity by shortening interval between train services is working effectively. The interval was shortened from ten to eight minutes.
2) Technology transfer of alarm systems, train radio communications, or automatic train stop (ATS) for natural disaster contributes to prevent railway accidents.
3) The technical guidance also contributed to the "Railway Electrification Project between Chengchow and Paoki" and the "Double Tracking and Electrification Project between Hengyang and Kwangchow" completed after this project.
4) Technology transter of the Japanese yard-automation method was not effective because of huge China's railway freight compared with Japan's. The north yard in Chengchow was fully automated based upon the Canadian method which had nearly the same size of freight. The method will be gradually spread to other districts.

(FY1995 Domestic Survey)
Since the Japan National Railway had been devided and privatized, it is impossible to gain the informations concerns (According to JR Eastern Japan Co.).

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①、③

和名 鉄道近代化計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/A 302/84

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Basic Plan on the Sanjiang Plain Agricultural Experiment Station

3.SECTOR
Agriculture/(Agriculture inlGeneral

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Committee on Science and Technology, Hei Long Jiang Province

7.OBJECTIVES OF STUDY
Technical Study mainly for irrigation and damages by cold weathen.

8.DATE OF S/W: 1984/8

9.CONSULTANT(S)
Agricultural Development Consultants Association

10.STUDY TEAM
No.of Members 9
Period Sep.1984-Mar.1985(7 months)

Total M/M	Japan	Field
16.00	6.81	9.19

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	54,180 (¥'000)
Contracted	46,378

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Harbin and Jiamusi Cities in Hei Long Jiang Province, Bao Qing Xian

2.PROJECT COST
(US$1,000)
US$1=2.5Yuan in 1984

	Total Cost	Local Cost	Foreign Cost
1)	8,000	3,000	5,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Following researches will be conducted to get basic technical data for agricultural development in San Jiang Plain

1.Research on breading and cultivation of cold-proof seeds
2.Research on farm land improvement in a cold area with low humidity

After the final report was submitted on March 1985, a pirot firm was established. Technical cooperation had been carried out for 5 years since then. Now all are transfered and managed by China's counterpart.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

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

Conditions and Development Impacts:
Until recently Chinese way of research was inflexible because of rigidity of coverage by each ministry, therefore there was no idea of integrating irrigation and agricultural projects. This kind of integrated experiment stations started for the purpose of development of San Jiang Plain is meaningful since it indicates perspective of Chinese experiment station. This is also indispensable to implement agricultural development in San Jiang Plain smoothly.

5.TECHNICAL TRANSFER
Cooperation with related experiment stations by establishing a new organization under Committee on Science and Technology of Hei Long Jiang Province.Technical Transfer is being alone through operation between irrigation research institute and integrated agricultural research

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)
(FY1992 Overseas Survey)
After the completion of (D/D) of basic planning in Mar.1985, seven long-term experts and some dozens of short-term experts were dispatched as technical cooperation. Field improvement work, setting up of machineries and equipments were completed.
The basic study on agriculture in a cold area was started in September 1985 and completed in March 1993. The Chinese side hopes to extend the technical cooperation for this project.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③

和名 三江平原農業総合試験場基本計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/A 301/84

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Sanko Heigen Ryutokyo Model Area Agricultural Development Project

3.SECTOR
Agriculture/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Ministry of Agriculture, Animal Husbandry and Fishery

7.OBJECTIVES OF STUDY

8.DATE OF S/W: 1981/7

9.CONSULTANT(S)
Agricultural Development Consultants Association

10.STUDY TEAM

No.of Members 68

Period Aug.1981-Mar.1984(32 months)

Total M/M	Japan	Field
276.91	123.81	153.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topografic & Geological Survey, Soil Test, Water Quality Test.

12.EXPENDITURE

Total	931,354 (¥'000)
Contracted	758,606

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
East region of Hei Long Jiang Province, Central part of Quan San Jiang Plain (arable land area 400million ha), Model District of Bao Qing Xian (6 million ha)

2.PROJECT COST
(US$1,000)
(US$1=1.98 Yuan in 1983)

	Total Cost	Local Cost	Foreign Cost
1)	320,000	220,000	100,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

- Irrigation Area : 46,170 ha
- Filldam : Crest 1,478,000 cu.m
- Diversion Weir : 2 places (Wang Jin Shan 75m, Tou Dao Crest 45m)
- River Improvement : 99 km
- Drainage Construction : 158.8 km
- Irrigation Construction : 172.3 km
- Road Construction : 137 km
- Farm Land Improvement : 46,170 ha

* Implementation period below is 2 years for design and 10 years for construction.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	11.56	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
The ratio of foreign cost of the projects, 31.5%, is summed up by opportunity mainly a part of machinery and material cost, and foreign cost of consultants.

Development Impacts:
Farm products 55,822,700 Gen, Live-stock products 24,831,800 Gen, making a total amount of 80,654,500 Gen.
In addition, they contribute to regional development including removal of flood damage, stabilization of community life, etc.

* EIRR above is for the entire plan.

5.TECHNICAL TRANSFER
1.Training in Japan: 3 times, total 27 persons
2.Training during the study period: several times

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)
The study result has incorporated in the provinces 8.5 Plan with planned project budget of 3.47 bil. yuan. In Jan.92, the National Water Supply Dept. decided to provide a financial support to the project. A request has been made to the National Planning Committee for the utilization of foreign fund, and presently in process toward ratification.
(FY1992 Overseas Surbey)
The entire plan of Sanko Heigen Development Project was designed between 1974 and 1977. Rehabilitation projects of five rivers at the Sanko Heigen are under way. About a half of the construction work was completed with the financial support of the World Bank and the local funds. The lower parts of the river has been improved. Construction of the Ryutokyo dam is necessary to prevent flood in the area of Ryutokyo. Therefore, a request for the total amount of investment of 3.47 billion yuan was made to the National Planning Committe.
The National Planning Committe approved the implementation of the project with budget of 3.45 billion yuan in Oct., 1992. The foreign funds can be utilized to finance the project if the project is implemented after 1995. The Local Water Supply Department plans to send a mission to Japan for the negotiation of Japan's Grant Aid in Feb., 1993.
(FY1995 Domestic Surbey)
It is learnt that both countries have agreed to make this Project as one of the 4th yen Credit Project on the annual conference on FY 1994.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 三江平原龍頭橋典型区農業開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASO CHN/S 303/84

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Tianjin, Shanghai and Guangzhou Telecommunication Expansion Project

3.SECTOR
Communications & B/Telecommunication

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Posts and Telecommunications of the People's Republic of China

7.OBJECTIVES OF STUDY
Elaborating the Telecommunications Network Expansion Project in Tianjin, Shanghai and Guanzhou, three major coastal cities of the People's Republic of China, and carrying out its feasibility study.

8.DATE OF S/W 1983/6

9.CONSULTANT(S)
Japan Telecom. Eng. and Consulting Service

10.STUDY TEAM

No.of Members 27
Period Jul.1983-Jun.1984 (12 months)

Total M/M	Japan	Field
77.04	42.31	34.73

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
none

12.EXPENDITURE

Total	182,687 (¥'000)
Contracted	168,036

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Tianjin(area 46.3 sq.m : pop.778), Shanghai(area 35.3 sq.m : pop.1,181), and Guangzhou (area 318.3 sq.m : pop.5,987) * Population:ten thousands, 1982)

2.PROJECT COST

(US$1,000)
(US$1=251 yen)

	Total Cost	Local Cost	Foreign Cost
1)	207,570	33,466	174,104
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Tianjin	Shanghai	Guangzhou	
1)Exchange	22	9	10	(Stations)
Terminals	40,000	70,000	40,000	
2)Transmission	41	31	13	(areas)
3)Subscriber cable	22	9	10	(stations)
	(1226km)	(2146km)	(2556km)	
4)Junction cable	19	20	12	(areas)
	(75.2km)	(97.2km)	(82.2km)	
5)Mobile Communication	o	o	o	

Imp. Period: 1985. -1988.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	14.60	FIRR1)	10.40
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Prerequisites for IRR calculation:
The demand in 1985, 1990 and 2000 is forecasted based on the growth of population, the rate of economic growth and city planning taking into account telephone demand up to 1982. The project life was estimated at 20 years.

Development effects:
Making economic activities, business and administration efficient, Substitution effect by means of transportation, Economy of energy, Making the distribution rational and efficient, and Enrichment of national life and education.

5.TECHNICAL TRANSFER
1. OJT: China Telecommunications Seminar(November 1984, in Tokyo; October 1986, in Beijing); 2. Acceptance of trainees: two counterparts(42 days as of October 1984, JICA); and 3. Other: acceptance of technical business mission(three times-February and September 1985, July 1987; 7-8 persons

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 completed with OECF financing as follows. The total foreign currency cost of the project amounted to 35 billion yen (437 billion yen estimated in the JICA study).

Oct.1984 OECF L/A signed (1,154 million yen)
Aug.1985 OECF L/A signed (9,235 million yen)
Jun.1986 OECF L/A signed (7,916 million yen)
Jul.1987 OECF L/A signed (9,398 million yen)
Oct.1987 Detailed design completed (Japan Telecommunications Engineering and Consulting)
Aug.1988 OECF L/A signed (7,297 million yen)

(FY1994 Domestic Survey)
No information.

2.MAJOR REASONS FOR PRESENT STATUS
1. Size of effect: Being recognized as a national project in order to establish efficient economy.
2. Degree of priority: National project
3. Other: Strong support by the Japanese agencies concerned

3.PRINCIPAL SOURCE OF INFORMATION
①, ④

和名 天津・上海・広州電気通信網改造計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASO CHN/S 301/84

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Improvement Project of Chimwangtao, Lieyunkang and Tsingtao Ports

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Planning Committee, National Science and Technology Committee, Transport Department

7.OBJECTIVES OF STUDY
Preparation for port developemnt plan of 1990 as target year.

8.DATE OF S/W 1983/6

9.CONSULTANT(S)
Overseas Coastal Area Development Institute

10.STUDY TEAM

No.of Members 19
Period Jul.1983-Sep.1984(15 months)

Total M/M	Japan	Field
109.40	85.40	24.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
none

12.EXPENDITURE

Total	297,053 (¥'000)
Contracted	268,748

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1.Qinhuangdao 2.Lianyun 3.Qingdao

2.PROJECT COST (US$1,000) (US$1=251 yen)

	Total Cost	Local Cost	Foreign Cost
1)	258,964	164,143	94,821
2)	452,589	312,350	140,239
3)	709,163	510,756	198,407

3.CONTENTS OF MAJOR PROJECT(S)

	1) Qinhuangdao	2) Lianyun	3) Qingdao
Break water	1,326m	3,170m	930m
Berth	(-12.5) 967m	(Container) 560m	(Coal) 295m
	(-10.0) 410m	(Grain) 280m	(Timber) 200m
		(Timber) 450m	(General) 200m
			(sand) 215m
Dredging	4,300,000cu.m	10,341,000cu.m	8,969,000cu.m
Land Recla-	4,260,000cu.m	4,900,000cu.m	7,670,000cu.m

Imp. Period: 1983.1-1988.12 1985.1-1989.12 1985.1-1989.1

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	27.90	FIRR1)	6.08
EIRR2)	17.20	FIRR2)	4.11
EIRR3)	12.20	FIRR3)	6.39

Conditions and Development Impacts:

Conditions:
Projection of cargo volume in 1990
Qinhuangdao 6,730 thousand tons
Lianyun 19,400 thousand tons
Qingdao 36,000 thousand tons

Development Impacts:
Effective use of port facilities for import cargo such as grain, timber and general cargo, and for export cargo of energy resources such as coal.

5.TECHNICAL TRANSFER
Preparation of a report in cooperation with 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)
OCEF loans approved are as follows.

	Qinhuangdao	Lianyun	Quingdao
1984 Oct.	4,631	2,445	2,203
1985 Aug.	3,723	5,772	3,937
1986 Jun.	7,011	11,085	2,620
1987 Jul.	3,451	11,911	8,683
1988 Aug.	3,184	8,297	13,043
1989 May	-	7,490	26,514

(million yen)

1989 Jan. Opening of operation on western Ding Berth of Qinhuangdao

(FY1992 Overseas Survey)
1)Qinhuangdao Port
1985-1990 Completion of port facilities
1986-1990 Completion of water supply facilities
1991-1993 Target year of completion of railway
The Chinese side acknowledges that construction works of the Phase 1 was basically completed. Construction of additional 6 berths in the Phase 2 was requested to the National Planning Committee.
2)Lianyun Port
1990.11 Timber Berth completed
1992.6 Container Berth completed
1992.12 Grain Berth completed
1993.10 Target year of completion on Break Water

(FY1994 Domestic Survey)
Jan. 1995: OECF L/A was concluded (Qinhuangdao) Port E and F Berths Construction Project(II), 3,041 mil Yen, 4th Stage Coal Terminal Construction Project(III), 7,178 mil. Yen). These lonas will be paid for the materials and equipment needed for the construction of berthes.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
High priority as a national project

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③、④

和名 秦皇島港西埠頭バース建設、連雲港廟嶺二期工事、青島港前湾港区建設工事

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASO CHN/S 302/84

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Double Tracking and Electrification Project of Railways between Hengyang and Kwangchow, and Electrification Project of Railways between Chengchow and Paoki

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Planning and Statistics Bureau, Ministry of Railways

7.OBJECTIVES OF STUDY
F/S for transport capacity reinforcement(double tracking electrification, structure reinforcement, etc.)

8.DATE OF S/W 1983/6

9.CONSULTANT(S)
Japan Railway Technical Service

10.STUDY TEAM

No.of Members 20

Period Jul.1983-Aug.1984(13 months)

Total M/M	Japan	Field
81.11	57.05	24.06

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	207,700 (¥'000)
Contracted	203,558

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Between Hengyang and Gwangchou--Section 1
Between Zhengzhou and Baoji--Section 2

2.PROJECT COST
(US$1,000)
(US$1=251 yen)

	Total Cost	Local Cost	Foreign Cost
1)	530,657	216,753	313,904
2)	923,808	545,852	377,956
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1.The electrification (Chengchow-Paoki)
(1)Electrification of the track and equipments of electricity.
- Construction of a transformer substation, a track of 2,375km, 5 distribution lines.
- Replace of a distribution line, etc.
(2)Signalisation and communication equipment.
(3)Construction of a station yard for goods wagon: 1.6 million sq.m.
2.The electrification and the construction of double track.
(Hengyang - Kwangchow)
(1)Construction of double track(514km, 67 stations)
- Construction of three tunnels
(2)Construction of station yards in four areas.
(3)Electrification(155km)
(4)Signalisation and communication equipment.

Imp. Period: 1984.1-1988.12 1984. -1988.

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	41.65	FIRR1)	19.40
EIRR2)	30.12	FIRR2)	8.70
EIRR3)		FIRR3)	

Conditions and Development Impacts:
[Conditions]
1)Estimation of railway demand
- Railway for long distance; -Roads for short distance
2)The electric locomotive " shan I " is considered to be the model.
3)The calculation of IRR: - Project life is 30 years.
- Inflation was excluded from analysis.; - The freight charges are the revised price at December,1983.(20% increase)
[Impacts]
1)The direct impacts:
- Saving waiting time of passengers.
- Decrease of financing costs of railway transportation of goods.
2)The indirect impacts:
- Avoidance of traffic accident in road transportation.
- Energy cost decrease; - Increase of employment.

5.TECHNICAL TRANSFER
The study term prepared and submitted to the counterparts techinical reports(site reports, minutes of discussion,etc.).

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)
-Detailed designs were completed by the Ministry of Railways
-OECF loans were approved and the project was duly implemented as follows.:

OECF Loan Agreements:

	Hengyang - Gwangcheu	Zhengzhen - Baoj.
Oct.1984	10,192	7,575
Aug.1985	26,822	13,258
Jun.1986	24,491	9,462
Jul.1987	8,789	31,396
Aug.1988	-	7,500

(million yen)

(FY1994 Domestic Survey)
Hengyang Guang-zhou
This project was completed in 1988 aiming at strengthening the transport capacity Zhengzhou-Baoji.
Of 684km between Zhengzhou and Baoji, the 269km section between Zhengzhou and San-men-xia was completed in 1986. After the construction of the remaing sections was promoted in accordonce with the 7th five-year plan(1986-90), it was completed in 1991. This led to the great increase of the capacity of coal transport from northern Hebei and north of Wei-he to eastern districts.
In the execution of this construction,various kinds of technical guidance was conducted by short-term experts dispatched by JICA. Furthermore, a geological survey centering on geophysical expolaration was conducted in the Nan-ling Tunnel between Heng Yang and Guang-Zhou as a joint work by Chinese and Japanese experts.

(FY1994 Overseas Survey)

(Please turn over)

(FY1994 Overseas Survey)
1) Both the "Railway Electirification Project between Chengchow and Paoki" and the "Double Tracking and Electrification Project between Hengyang and Kwangchow" were realized based upon an OECF loan (2nd round), which were divided into several times, and completed in 1987.
2) According to Japan's F/S, Chinese Ministry of Railways conducted D/D.
3) After the electrification, annual transportation capacity between Chengchow and Paoki was raised from 40 million to 60 million tons (50%) by 80 electiric locomotives pruchased from Japanese firm.

2.MAJOR REASONS FOR PRESENT STATUS
1.Large economic effects, such as an increase in transport capacity
2.High priority given to this project by China in promoting modernization
3.Vigorous promotion of the project by the Chinese Ministry of Railways

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③、④

和名 鄭州・宝鶏間複線鉄道電化計画、衡陽・広州間鉄道複線化及び電化計画

Continued on {F/S,D/D}

状況（要約表添付文書）

ASO CHN/S 302/84 (F/S)

Name of Study: Double Tracking and Electrification Project of Railways between Hengyang and Kwangchow, and Electrification Project of Railways

Country: China

Type of Study: F/S

Sector: Transportation/Railway

Present Status: Completed

(Description)

-Detailed designs were completed by the Ministry of Railways
-OECF loans were approved and the project was duly implemented as follows.:

OECF Loan Agreements:

	Hengyang - Gwangcheu	Zhengzhen - Baoj.
Oct.1984	10,192	7,575
Aug.1985	26,822	13,258
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Jul.1987	8,789	31,396
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(million yen)

(FY1994 Domestic Survey)
Hengyang Guang-zhou
This project was completed in 1988 aiming at strengthening the transport capacity Zhengzhou-Baoji.
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In the execution of this construction, various kinds of technical guidance was conducted by short-term experts dispatched by JICA. Furthermore, a geological survey centering on geophysical expolaration was conducted in the Nan-ling Tunnel between Heng Yang and Guang-Zhou as a joint work by Chinese and Japanese experts.

(FY1994 Overseas Survey)

(Please turn over)

(FY1994 Overseas Survey)
1) Both the "Railway Electirification Project between Chengchow and Paoki" and the "Double Tracking and Electrification Project between Hengyang and Kwangchow" were realized based upon an OECF loan (2nd round), which were divided into several times, and completed in 1987.
2) According to Japan's F/S, Chinese Ministry of Railways conducted D/D.
3) After the electrification, annual transportation capacity between Chengchow and Paoki was raised from 40 million to 60 million tons (50%) by 80 electiric locomotives pruchased from Japanese firm.
4) Annual transportation capacity between Hengyang and Kwangchow was raised from 20 million to 40 million tons by the double tracking and electrification. Train was also due to improvement of gradients and curves. The method of tunnel construction at the time of Dayan Shan Tunnel has been utilized for subway construction as well as automation and reduction of other tunnel constructions.
5) Japan's railway-yard technology is not adequate for China due to the huge railway freight in China. Automation of the north yard at Chengchow was done based upon Canadian technology transfer.
6) Although cost reduction was attempted by local purchase of almost all instruments, materials and spare parts, since domestic prices of instruments and materials rise reflecting international parket prices, cost reduction of this project was not successful. In some cases, imports were cheaper than domestic products.

PROJECT SUMMARY (F/S)

ASO CHN/S 304/86

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Port Development Project in Dapeng Bay

3.SECTOR
Transportation/Port

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Ministry of Transportation

7.OBJECTIVES OF STUDY
Zoning plan of the coastal area
Long term M/P
F/S on the develoment plan aiming at the year 1990

8.DATE OF S/W: 1985/10

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
Toko Engineering Consultants Ltd.

10.STUDY TEAM

No.of Members 13

Period Jan.1986-Mar.1987(15 months)

Total M/M	Japan	Field
72.60	39.80	32.80

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
none

12.EXPENDITURE

Total	181,859 (¥'000)
Contracted	177,438

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Dapeng Wang, Kwang Tung prefecture

2.PROJECT COST (US$1,000) (US$1=162Yen)

	Total Cost	Local Cost	Foreign Cost
1)	102,283	58,113	44,170
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The 1st Phase Plan for the year of 1990 is as follows:

	Unit	
- Wharf	m	920
- Berth	-	2(25,000DWT) 1(15,000DWT) 3(1,000DWT)
- Revetment	m	500
- Breakwater	m	100
- Dredging	X 1,000cu.m	2,860
- Reclamation	X 1,000cu.m	4,210

Imp. Period: 1988.7-1992.12

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	12.80	FIRR1)	2.20
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
[Conditions] Only the first plan is subject of the IRR calculation. The project life is 35 years. The amount of cargo for the year of 1990 is estimated as 1,660,000 tons.

[Development Impacts]
1.Direct benefits
1)To save the cost of waiting time.; 2)To save the time of cargo transportation; 3)To save the cost of sea transportation due to an increase in ship size resulting from the port widening.; 4)To save the cost of transportation of coal, containers, and building materials by changing from land transportation to sea transportation.

2.Indirect benefits
1)Promotion of industrial development in the eastern area of Shenzhen City
2)Promotion of the urban development of Yantian
3)Increase of the job opportunities
4)Promotion of economic development in Huanan

5.TECHNICAL TRANSFER
OJT(on the job Training) by the Seminar.

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 is scheduled to be excecuted by the OECF loan(1990-1994)

1991.1 : OECF loan agreement signed. (7,613 million Jap. yen)
1991.10: OECF loan agreement signed. (3,691 million Jap. yen)
1992.10: OECF loan agreement signed. (3,377 million Jap. yen)

Major components to be financed:
1)Construction of 6 berths handling cargo volume of 2.8 million tons (1 container berth, 1 multi-purpose berth, 1 bulk berth, 3 general berth) and port facilities
2)Railway(24km)
3)Road(72km)

1988 :Commencement of reclamation and dredging
1989.10 :Opening of trial operation on 3 berths (1,000; 3,000; 10,000 tonnage)
1990 :Commencement of construction of railway and road

(FY1992 Overseas Survey)
- The Phase 1 construction of 2 container berths and 1 multi-purpose berth is in progress. (Completion is scheduled at the end of 1993)
- Construction of road(72km) is in progress. (Completion is scheduled at the end of 1993)
- Construction of railway(25km) is in progress. (Completion is scheduled at the end of 1993)

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③、④

和名 大鵬湾港湾整備計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 305/86

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Subway Project of Shanghai

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Science and Technology Commission of Shanghai Municipality, Bureau of Shanghai Municipal Engineering Administration,etc.

7.OBJECTIVES OF STUDY
F/S for constructing a subway to improve urban transport in Shanghai

8.DATE OF S/W: 1985/1

9.CONSULTANT(S)
Japan Railway Technical Service

10.STUDY TEAM

No.of Members 13

Period May.1985-Aug.1986(15 months)

Total M/M	Japan	Field
81.58	52.17	29.41

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	196,815 (¥'000)
Contracted	191,021

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Shanghai and its suburbs(Shanghai new station-Xin Longhua)

2.PROJECT COST (US$1,000) (US$1=159 yen)

	Total Cost	Local Cost	Foreign Cost
1)	1,170,754	861,226	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Construction of a express-railway line (underground line) betwen xinlonghua station and Shanghai new station --- Major purpose is the improvement of the traffic situation of Shanghai city.
- Between Xinlonghua and Shanghai new; 13.5km
- Structures; station part midle part sealed tunnel
- No. of stations; 13, management facilities (including air conditioner, prevention of disaster system). passenger control facilities.
- line facilities; floors, ties, rails, etc.
  Electric facilities; power transformation facilities, contact wire facilities, power transmission and distribution wire facilities, signalling facilities planning, telecommunications facilities.
- Rolling stocks; section to be opened (the year 1991)138 cars. Section to be planned north-south line facilities (xinlonghua -Ji Yun Lu) (the year 2013) 392 cars.
- Rolling stock bases 1) base facilities; facilities for main pare inspection or overhaul, temporary repair, trip inspection, regular inspection, car cleaning facilities, storage track.
  2) Inspection and repair facilities; management office, workshop building, wheel grinding shop, maintenance base, other buildings.
- Operational safety and traffic control systems; automatic- signal block system, cab signal system, 1st-type electric relay system, automatic train controll system (CS-ATC), centralized train control system (CTC).

Imp. Period: 1986. -1991.

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

EIRR1)	8.70	FIRR1)	1.14
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
[Preconditions]
Transport demand was estimated for the years from 1983 to 2020. As for rolling stock gauge, axle load, car dimensions, etc., standard values in Japan were used as samples.
EIRR:
(1)Infration; not considered.
(2)Exchange rate; 1 yuan= 85yen.
(3)Residual value; Earmarked for the last year of the project and residual valve
(4) Period of analysis; up to 2020
FIRR:
(1)Sample price for analysis; market price.
(2)Tarrif for importing materials; not considered
(3)Introduction for automatic system for ticket examinning must be considered after eliminating accumulated deficit.

[Development Impact]
Improvement of road traffic congestion

5.TECHNICAL TRANSFER
1. OJT: A seminar was held.
2. Training of counterpart personnel: One person for one month.
3. Two Chinese experts observed the status of subway construction and 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)
-OECF loan was not requested.
-West Germany agreed to finance in January 1989.
-Additional finance was obtained from USA and France.
-The review of the F/S and the basic designs were undertaken by the Chinese authorities.

(FY1991 Overseas Survey)
The total planned budget for the project is 2.543 bil. yuan, of which 1.58 bil. yuan is domestic financing and US$262 mil. is foreign borrowing.

(FY1992 Domestic Survey)
The subway plan (Route 1, South-north line) was once proposed 13.5km between Xin Longhua - Shanghai. But it was extended to 15 km because one section was added between Xin Longhua and Jin-Jiang Dong Yuan. 6.6km between Shu Jia hui and Jin-Jiang Dong-Yuan was finished and opened May 1895. The rest part will be finished and opened early 1995.

(FY1994 Domestic Survey)
No additional information.

(FY1994 Overseas Survey)
1) Reconciliation of this F/S, D/D and construction were done by China. All processes of construction were finished in October 1994 and all facilities will be ready to be used in May 1995.
2) Foreign fund(US$ 26.2 billion) was mainly financed by Germany. Trains, telecommunication devices, station facilities, and electirc facilities were also purchased from Germany. Loans from the United States and France were also made. Traffic-signal-control systems, disaster-prevention and waterproof facilities were purchased by US. loans, and cutting/sharpening machines were by French loans.
3) Local fund was previously prepared by Shanghai Public Bureau of Subways. Afterwards a municipal bureau under Shanghai City Office took over the position to procure and repay the fund since September 1994. The municipal bureau is an original organization of Shanghai City to operate and manage funding for the projects under the jurisdiction of the City.
4) As the report of this F/S is studied in detail, some part of it could be utilized for D/D. Moreover, this F/S report was translated into Chinese and used as a textbook for other cities' subway projects.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
Although loans from Japan had been originally planned, this was not accepted by the Chinese government.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 上海都市快速鉄道整備計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 101/87

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Shanghai Air Pollution Control

3.SECTOR: Administration/Environmental Problems

4.REFERENCE NO.:

5.TYPE OF STUDY: M/P

6.COUNTERPART AGENCY: Department of Environment, Municipality of Shanghai

7.OBJECTIVES OF STUDY: Air Pollution Control

8.DATE OF S/W: 1985/10

9.CONSULTANT(S): Pacific Consultants International
Research, Analysis and Computing

10.STUDY TEAM

No.of Members 16

Period Jan.1986-Feb.1988(26 months)

Total M/M	Japan	Field
78.79	39.21	39.58

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: None

12.EXPENDITURE

Total	385,188 (¥'000)
Contracted	224,269

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Shanghai city

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	127,000		
(US$1=125Yen) 2)			

3.CONTENTS OF MAJOR PROJECT(S)

- Installation of desulfurization equipment at the power plant
- Large-scale concentrated power supply
  (for factories in the western part of Shanghai City)
- Introduction of various pollution control devices and measures at 301 factories of Shanghai

Proposed master plan for air pollusion controll leading to the year 2000 is follows;

Reduction policy	Factory	Reduction of SOx (ton/year)	Initial Investment (million year)
Energy Saving,	58	496	14.53
Coal Pelleting,	14	196	0.84
Fuel Change (Coal to oil),	1	12,732	0.01
Factory removal,	4	2,519	225.63
Flooting floor combusion,	133	23,087	389.80
Desulfurization of the factories,	73	16,891	208.61
Desulfurization of the power plants,	1	238,301	396.03
Large-scale Consentrated power supply.	21km2	12,233	336.00
Total		306,897	1,574.88

4.CONDITIONS AND DEVELOPMENT IMPACTS

[Concitions]
The amounts of coal/oil consumption are expected to be follows;
(mill.ton)

	1985	2000
coal	18	52
oil	3	2.5

[Impacts]
The exhaust amount of SO2 would increase from 243,000 ton (1985) to 567,000 ton (2000) in case that no policy is carried out. It is expected that the concentration of SO2 in the most city area can't meet the 3rd standard of China's environmental policy (industrial area), nothing to say the 2nd standard (resident/commercial area).
But the proposed projects will reduce about 300,000 ton of SO2 so that most area in the city can 2nd standard and no area under 3rd standard.
In the environmental aspect, there is expectation of environmental improvement, however, there is very little expectation of economical investment impact. In other words, it is a key point for project implementation whether the Shanghai City Municipality is able to afford the expense or not.

5.TECHNICAL TRANSFER: Hold seminar on air pollution control; On the job training and short term training in Japan for counterparts on air pollution analysis; and Guidance of operation of equipment such as vehicle mounted air pollution

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)

(FY1991 Overseas Survey)
Although there is no marked progress toward the implementation of the proposed projects, the study results led to the establishment of the Shanghai City Program for the Protection against Air Pollution.

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION: ①, ②

和名 上海市大気汚染対策

{M/P,Basic Study,Other}

PROJECT SUMMARY (Basic Study)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 501/87

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Groundwater Development Project in Tianjin City

3.SECTOR
Social Infrastructu/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY: Basic Study

6.COUNTERPART AGENCY
Science and Technology Council and Dept. of Geology and Mining of Tianjin City

7.OBJECTIVES OF STUDY
Survey of water resources to develop a water supply system

8.DATE OF S/W: 1985/6

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

10.STUDY TEAM
No.of Members 7
Period Nov.1985-Dec.1987(26 months)

Total M/M	Japan	Field
41.70	11.50	30.20

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Trust the Domestic Analysis

12.EXPENDITURE

Total	293,643 (¥'000)
Contracted	113,258

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Tianjin City

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	32,300		
(US$1=130Yen) 2)			

3.CONTENTS OF MAJOR PROJECT(S)
The study examined the possibility of water supply to four industrial development areas in Tianjin City. However, the chinese authorities plan to work on the project from their own resources, and they have not yet made the detailed design.

4.CONDITIONS AND DEVELOPMENT IMPACTS
After the study examined, the authorities identified one site ( )which will supply 50 million cu.m of water per annum.

5.TECHNICAL TRANSFER
OJT and JICA training on water resource simulation in Japan

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The Government included the D/D on ground water development in the request for the Third Yen Credit (1990 - 1994), but has been unsuccessful.

(FY1991 Overseas Survey)
Due to a city's own project, the problem of water supply in Tianjin for both the civil life and industrial development has basically been solved.
Accordingly there is no planned project based on the study, the studied areas still having a role as potential water resources for future urban and industrial development.

(FY1994 Domestic Survey)
No progress.
It seems that the water demand is not increased more than estimated.

(FY1995 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
The results of this survey work are not utilized because the water resource is very far from the city and the cost to send the water is quite expensive.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 天津市地下水源開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 308/87

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Hokkou Hiraikyo Multipurpose Dam Construction Project

3.SECTOR
Social Infrastructu/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Pearl River Water Resources Commission

7.OBJECTIVES OF STUDY
F/S on flood control, navigation and power generation.

8.DATE OF S/W 1985/12

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

10.STUDY TEAM

No.of Members 13
Period Jun.1986-Oct.1987(17 months)

Total M/M	Japan	Field
22.11	7.10	15.01

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	225,097 (¥'000)
Contracted	97,907

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Hokkou River basin, Guangzhou Province

2.PROJECT COST (US$1,000) (US$1=160Yen)

	Total Cost	Local Cost	Foreign Cost
1)	298,500	174	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- Catchment area : 34,097km2
- Effective storage volume : 1,459 x 10^6 m3
- Rockfill dam 1,887.5m long, 50m high 3,568,000 m3 in volume
- 16 radial gates (14m wide and 19.5m high) for spillway, 38,100m3 in concrete volume
- Power plants (4 units, 43.5MW each), surface type 100m(L) x 88m(W) Bulb turbine
- Navigation lock, lock with single chamber type, 190m(L) 16m(W), minimum draft depth 3m, 281,000m3 in concrete volume
- River diversion, trapezoidal channel type, design flood 15,500 m2/s, first stage cofferdam 1,560,000m3, second stage cofferdam 710,000m3
- Construction, period - 7 years, cost 1,074,456 x 10^3 Chinese yen (US$ 298.5 x 10^6) base year 1986

Imp. Period: 1989.1-1995.10

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	13.90	FIRR1)	6.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditon:
Benefits were calculated for flood control, power generation and river navigation.

Development Impacts:
- Reduction of flood damages
- Increased supply of power
- Savings of labor and fuel costs by shortening the distance and hours necessary for river travel

Environmental Impacts:
As a result of environmental impact study, it has come to a conclusion that the development of the project was considered to be unlikely to be a cause of serious impact there to.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
1. Lecturing to Chinese counterparts.
2. Construction site insepctions in Japan.
3. Guidance of Japanese soil test 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)

The project was included in the application list for the Third Yen Loan (1990-1994), but was not approved.

(FY1991 Overseas Survey)
Presently the provincial government is conducting a preliminary design mostly in accordance with the F/S result.
The project is planned to be implemented as soon as the approval of the central government is issued, with budget from the provincial fund and a national subsidy.

(FY1994 Domestic Survey)
No progress in the form of a project.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 北江飛来峡多目的ダム建設計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 307/87

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Kouhokou River Bridge Construction Project

3.SECTOR
Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY
Public Relations Office for Kouhokou Bridge Construction

7.OBJECTIVES OF STUDY
Economic and financial analysis of the new bridge construction

8.DATE OF S/W: 1986/11

9.CONSULTANT(S)
Chodai Co., Ltd.
Pacific Consultants International

10.STUDY TEAM
No.of Members 12
Period Feb.1987-Mar.1988(14 months)

Total M/M	Japan	Field
32.32	12.50	19.82

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
O/D survey over Kouhokou River, Geological Survey made by Chinese side.

12.EXPENDITURE

Total	92,541 (¥'000)
Contracted	87,037

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Southern zone of Shanghai City

2.PROJECT COST (US$1,000) (US$1=125Yen)

	Total Cost	Local Cost	Foreign Cost
1)	305,000	188,000	117,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Municipality of Shanghai, PRC, is making greate effort to develop the Pudong New Area which expands at east bank of Huangpu River flowing down in the central part of Shanghai urban area. This Pudong New Area is connected only by tunnels and new transportation facilities crossing the River are indispensable element for the development of the Area. The project aims to construct the six lanes traffic corridor between both banks. Total length of the corridor is some 8km. Main bridge is cable stayed bridge having 400m center span length (total bridge length 657m). For project site aquisition compensation for factories, stores, etc 123 thousand m2), construction of new houses (350 thousand m2), and farm land aquisition (133 thousand m2) are planned.

Imp. Period: 1986.1-1991.10

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	12.80	FIRR1)	8.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Assumptions for IRR calculation:
- Traffic projections in four points of time
- Six traffic lanes
- Tolls for vehicles are the same as the current charges of ferry services or tunnel passage

Development Impacts:
- Reduction of travel time and of distance crossing Huangpu
- Development in the eastern bank of the river
- Alleviation of traffic and housing congestions in the western bank of the River

5.TECHNICAL TRANSFER
On-the-job training on the O/D survey and analysis.

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.1988 F/S reviewed by the Urban Planning and Design Bureau of the Shanghai Municipal Government
Oct.1989 D/D completed by the Urban Planning and Design Bureau and the Donji University

The project was financed by ADB.

Fixed cost of the project
Total cost 330 million US$
Local cost 225 million US$

Finance
Local 225 million US$
ADB 105 million US$

(FY1991 Overseas Survey)
The construction was completed as the Nanpu Bridge.

(FY1994 Domestic Survey)
After the opening of the bridge on Nov.1991, the number of vehicles using the bridge is steadily increasing with the progress of the Pudong Area development. Together with the completion of Yangpu Bridge between Puxi and Pudong Areas, both bridges are being used as the two major traffic corridors between the two areas.
The Pudong Area in Shanghai is developing remarkably in recent years, which means that the completion of the Nanpu Bridge greatly contributes to the improvement of investment circumstance for Pudong Area.

(FY1994 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
1.Cost decrease at crossing Huangpu River and development of the eastern bank
2.The priority project in the M/P of Changhai City
3.Promotion system was established.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 上海市黄浦江架橋計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 306/87

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Shanghai-Nanjing Expressway Construction Project

3.SECTOR: Transportation/Road

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Highway Planning & Design Institute, Ministry of Communication

7.OBJECTIVES OF STUDY: Expressway Construction

8.DATE OF S/W: 1985/11

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

10.STUDY TEAM

No.of Members 15

Period Feb.1986-Dec.1987(23 months)

Total M/M	Japan	Field
81.80	11.10	70.70

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: None

12.EXPENDITURE

Total	289,192 (¥'000)
Contracted	146,700

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Between Shanghai and Nanjing

2.PROJECT COST (US$1,000) (US$1=372yuan)

	Total Cost	Local Cost	Foreign Cost
1)	949,000	326,000	623,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

The main road existing between Shanghai and Nanjing is gone around and its total lingth reaches to 359km. So almost all sections are always tied up and traffic accidents happens frequently. So a new highway is intended. The route is planned to connect industrial and cultural cities and go through the most active area between Shanghai and Nanjing.

(1) Extention
- route of extention ; main route (Shanghai - Nanjing) : 274.04km
  Zhenjiang branch route : 10.70km
  Total : 284.74km
- sort of extention ; roadway : 266.74km (93.7%)
  bridge : 18.00km (6.3%)

(2)Standard
- a full road for motoring ;

	main route	Zhenjiang branch
Grade	express	first
Design Speed (km/h)	120	100
Lane	4	4
Total width (m)	26.0	20.5

18 interchanges including 1 junction are planned

(3)Construction periods.

section	year to start construction	year to start operation
Nagunic - Danyang IC	1992	1996
Danyang IC - Wyxi North IC	1993	1998

Imp. Period: 1991. -1998.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	19.50	FIRR1)	7.40
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

For estimation of IRR,
1) estimated future traffic demand in 3 periods, and
2) used 2 kinds of OD lists for analysis of induced traffic

(Effects)
-Promoting industrial and economic exchanges amoung the cities
-Promoting cartel and corporation of enterprises
-Developing and spreading commodity economy
-Promoting international trades and domestic markets
-Technical innovation led by action man-power and technical exchanges
-Conveying informations effectively
-Improving efficiency of sightseeing tours

5.TECHNICAL TRANSFER

1.OJT
2.Seminar
3.Training in Japan for 3 months in the field of Highway Planning and Design

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 D/D was conducted during 1990-1992 by both the provincial and national funds. The project is scheduled to be implemented during the period between 1992 and 1997 with total of 4.7 bil. yuan sourced from the provincial development investment fund and a national subsidy.
Japanese technical cooperation is wanted when some major technical problems arise during the construction process.

(FY1994 Domestic Survey).
The construction work was commenced in 1992 by national(chinese)fund.

(FY1994 Overseas Survey)
1) Completion of all the constructions is scheduled in August 1996. Due to rapid economic growth, huge traffic volume over the capacity of the expressway is predicted.
2) All the fund for this project was domestically financed. Total 5.04 billion yuan was shared by Shanghai (0.7 billion yuan) and Jiangsu State (4.34 billion yuan).

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①, ②, ③

和名 上海・南京間高速道路建設計画

(F/S,D/D)

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 102/88

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Hainan Island Integrated Development

3.SECTOR
Development Plan/Integrated Regional Development Plan

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
National Planning Commission Dept. of Land, Province of Guangdong and Office of Integrated Development, Hainan District

7.OBJECTIVES OF STUDY
Formulation of a master plan through 2005

8.DATE OF S/W 1985/12

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

10.STUDY TEAM

No.of Members 22
Period Mar.1986-Mar.1988(19 months)

Total M/M	Japan	Field
153.41	42.50	110.91

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	443,011 (¥'000)
Contracted	414,792

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Hainan Island (pop. 5.98 million, 33,900 sq.km)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
(US$1=3.2 yuan)	1)	20,937,500		
	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Based on the nation's policy which is "open-market", the basic strategy of this project is to grow the island as the nation's largest open-economy area.

- Agricultural development (upland crops, irrigation development, high-profit tropical crops
- Mining and industry (agro-industries, processing of mineral products, wood and fishery products, export products industries)
- Tertiary industries (tourism, development of core cities)
- Energy (natural gas development, power)
- Selection of five economic development areas
- Establishment of total traffic control system in Haikou
- Development of Easten Greater Haikou (construction of a bridge over Nanto-ko river)

Note: The cost above is the total investments during 1986 - 2005 (1985 price).

4.CONDITIONS AND DEVELOPMENT IMPACTS

Basic strategies:
1) Sophistication of the industrial structure (from agriculture to industry, tourism and various services)
2) Formation of growth centers and wider economic areas based on the open market system
3) Infrastructural development in accordance with 1) & 2)

Development targets (in billion yuan):

	1995	2005
Gross Regional Product	16.0 (growth 10.3%/year)	34.4 (growth 8.0%/year)
Gross Agri. Product	5.1	8.7
Gross Indus. Product	5.2	12.6
Gross Product of Tertiary Sector	5.9	13.1

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

1) Based on the study, OECF loans have been approved as follows.
 - East trunk road improvement (under construction)
  Jan.1991 OECF L/A signed (7.2 billion yen)
  Oct.1991 OECF L/A signed (Stage II, 2.6 billion yen)
  To be completed in June 1994
 - Deep-sea berth of Haikou Port (under construction)
  Oct.1991 OECF L/A signed (2,589 million yen)
  To be completed in Dec. 1993
 - 3 berths (20,000 DWT) of Yangpu Port
  OECF (5,200 million yen)
 - Telecommunication development
  Jan.1991 OECF L/A signed (5 billion yen)
  Oct.1991 OECF L/A signed (4.17 billion yen)
  To be completed in Dec. 1994.

2) The report was translated into English, and the following assistance have been offered.
 - World Bank (Dam construction, agricultural development, regional development)
 - ADB (studies on the energy sector and environmental conservation)
 - UNDP (studies on economic policy reforms)

3) Activities toward the development of infrastructure and resources have been started in two core cities following the proposals of this report.

(FY 1993 Domestic Survey)
4) Development of business area and road network based on the M/P of Haikou City.
5) Development of the trade center area of Haikou.
6) Development the area used to be Haikou airport.

(FY1991 Overseas Survey)
No additional information.

(FY1994 Domestic Survey)
No information.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①、②、④

和名 海南島総合開発

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASO CHN/A 201B/88

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY
Lujingxiang Model Stock-farming Project in Gansu Province

3.SECTOR
Aniaml Husbandry/Animal Husbandry

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
National Scientific Technology Committee, Ministry of Animal Husbandry of Kansyuku Region

7.OBJECTIVES OF STUDY
To elaborate a master plan as well as to carry out a feasibility study for the execution of integrated agricultural and livestock development in Lujingxiang region with 81,800ha.

8.DATE OF S/W: 1987/6

9.CONSULTANT(S)
Japan Agricultural Land Development Agency

10.STUDY TEAM

No.of Members 11

Period Oct.1987-Mar.1989(18 months)

Total M/M	Japan	Field
69.00	29.00	40.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	155,358 (¥'000)
Contracted	132,921

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
8 villages and 6th regional cattle breeding examination center of Minsan which surround east Rosei village of Min district of Kanshuku Region (Area

2.PROJECT COST (US$1,000)
US$1=3.85Yuan in Ju

M/P	1)	17,765 Local Cost	11,313 Foreign Cost	6,452
	2)			
F/S	1)	7,208	3,796	3,412
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>
1. Grassland establishment: meadow 6,444ha, pasture 899ha
2. Road development for grassland management and marketing : asphalt pavement 48.5km, sediment pavement 106.1km
3. Fence setting for proper manegement of tame pasture 412km
4. Introduction of machineries for grassland management and meadow cutting: tractor 55 units etc.
5. Machinery maintenance center
6. Cattle barn and ensilage for non-grazing season: 181 paddocks
7. Artificial insemination center for animal improvement
8. Feed mising plant for stable supply of superior grain feed

<F/S>
1. Verification reserch and diffusion: research and diffusion center in sub-grassland No. 5 and experimental stock-farm in No.6
2. Grassland establishment: meadow 1,630ha, pasture 242ha
3. Livestock facility and machinery necessary for the items mentioned above
4. Road development: main and branch roads in the study area 47km
5. Drainage improvement : 5.1km of drainage channel in sub-grassland No.6
6. Meet processing plant
7. Rural development: water supply, electrification, education and medical service in the area

Imp. Period: 1990. -2000.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

[M/P]
This master plan aims to be a representative project on livestock development in the north-western territory with regard to the 7th, five-year-plan of China. It is expected to develop and improve grassland establishment, livestock bleeding, food processing and marketing, as well as to achieve increase of farmer's income and uplift of living.

[F/S]
Feasibility Study mainly focuses on the model district for livestock development in about 7,150ha aiming to increase grassland productivity and cattle bleeding in consideration of the basic plan. Furthermore this model project shows a good example to other district with its excellent effect so as to extend advisable farming and development theory of the Master Plan.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
Co-operative work to make a 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)
(FY1991 Overseas Survey)
A research cooperation (study on production technology of beef cattle and feed) as a mini-project based on the results of this Development Study is under way. 3 long-term experts and 7 short-term experts have been dispatched. Main items of the study are 1) improvement of beef cattle breed and breeding management and 2) improvement of a grassland.
The following construction works were completed with finace of the local funds: an experiment center with 30 rooms, 2 breeding farms(200sq.m), 6 breeding farms(1200sq.m), an artificical insemination facility(40sq.m), offices and a dinning room(540sq.m.). The Chinese side plans to execute the following projects to widespread among farm houses the satisfactory results obtained by this study.
1) Establishment of a company grouped with beef cattle production firms, 2) Establishment of Technical Service Center, 3) Construction of basic facilities, 4) Establishment of efficient and scientific beef cattle production system
The Chinese side reduced cost of investment in basic facilities from 68.39 million yuan suggested by the Development Study to 42.05 million yuan. A half of the investment cost (21.025 million yuan) will be requested to the Japan's Grant Aid.

(FY1994 Domestic Survey)
No additional information.

(FY1995 Overseas Survey)
The peoples' government of Gansu Province much appreciates the results of this survey works of the project, however, is anxious about to find the financial resources. At present, Japanese grant aid has been requested for the project "to recover the balance of ecology and to develop the resources of animal husbandry" and for the mini-project "to transplant the enbryonic region of cows".

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 甘粛省閻井地区牧畜業開発計画

(M/P+F/S)

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 201B/88

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Dalian Port Development Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Traffic Dept., Dalian Port Authority

7.OBJECTIVES OF STUDY
Specific improvements for Old Port and a development plan for a New Port at Daiyu Bay

8.DATE OF S/W 1986/11

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
Nippon Koei Co., Ltd.

10.STUDY TEAM
No.of Members 17
Period Apr.1987-Oct.1988(18 months)

Total M/M	Japan	Field
99.70	52.80	46.90

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
None

12.EXPENDITURE

Total	303,894 (¥'000)
Contracted	240,779

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Dalian Port(1986 throughput of 44.3 million tons) and Daiyou Bay

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	185,020	105,820	79,200
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>(1)Construction of a new port in the Daiyou Bay by the year 2000
(15 berths, breakwater, access railway and road)
(2)Construction of the new port by the year 1995
(10 berths and access railway and road)
(3)Improvement of the old Dalian Port
(berth for passenger boats, wharves, information system for container management)

<F/S>(1)Wharfs (1,440 m)
Berths 2(50,000DWT)
3(20,000DWT)
1(15,000DWT)
(2)Temporary and reclamation revetment (1,150 m)
(3)Dredging (5,145 m)
(4)Reclamation by land excavation (3,070 m)
(5)Reclamation by sea-bed sediment (772 m)
(6)Pavement of roads and yards (250,800 sq.m)

Imp. Period: 1990. -1994.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	23.76	FIRR1)	3.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

<M/P>(Conditions) The cargo amount of the Dalian port is estimated as 75,850,000 tons in the year of 2000. The new port is estimated to handle 8,510,000 tons.
(Development Impacts) 1)Promotion of external trade. 2)To smooth the goods and material transportation. 3) Development of northeastern area.
<F/S>(Conditions) The project life is 35 years. The amount of cargo in 1995 is estimated as 63,860,000 tons and the amount for the new port is to be 5,860,000 tons.
(Development Impacts) 1)To save the cost of waiting and cargo handling. 2)To save the cost of sea transportation and land transportation. 3)Promotion of industrial development and urban development in the economical & technical development areas. 4)Increase of job opportunities. 5) Development of notheastern area.

5.TECHNICAL TRANSFER
Seminars carried out in China and technical transfer in Japan.(Number of the 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)

Construction of 4 berths in the first half of the Phase 1 Plan were completed by the World Bank finance.

Schedule of the Phase 1:
1987.8 Commencement of shore protection works
1991 Opening of trial operation on a container berth and a multi-purpose one.
1992.12 Opening of operation on all 4 berths

(FY1992 Overseas Survey)
The loan agreement of 6 berths in the Daiyou Bay has not been realized due to the following reasons.
1)The loan agreement is delayed due to the Tianamen massacre.
2)Total amount of the OECF's finance regarding port development project has not been increased much since 1990.
3)Each port has own urgent projects, and its degree of urgency differs among ports.

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③

和名 大連港港湾整備計画

(M/P+F/S)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/A 303/88

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Irrigation Development Project in Northern Hubei

3.SECTOR: Agriculture/(Agriculture in)General

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Committee of Science and Technology

7.OBJECTIVES OF STUDY: Irrigation Development

8.DATE OF S/W: 1987/1

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

10.STUDY TEAM

No.of Members 12
Period Jul.1987-Jun.1988(12 months)

Total M/M	Japan	Field
52.52	41.69	10.83

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY:

12.EXPENDITURE

Total	177,676 (¥'000)
Contracted	154,282

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA

Located on the northern Hubei province in the inland China or middle courses of the Yangtze River (The total land rea: 1,540 sq.km, population: 1,170

2.PROJECT COST

(US$1,000)
US$1=3.7Yuan in 1987

	Total Cost	Local Cost	Foreign Cost
1)	30,180	16,900	13,280
2)	40,660	23,000	17,660
3)			

3.CONTENTS OF MAJOR PROJECT(S)

In Ebeigangdi, Hubei Province where there are frequent typhoons, the F/S of the projects was completed to provide stable irrigated agriculture.

	Shitaisi	Yintan (Qingquangou)
Irrigated area(ha)	14,053	140,000
Pumping station	6	1
Intake(cu.m/sec)	7.00	60.00
Irrigation canal(km)	182.2	1,703.2
Substation	5	2

Above costs were caluculated in 1987.

Imp. Period: 1989. -1993.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	7.55	FIRR1)	13.73
EIRR2)	27.94	FIRR2)	47.91
EIRR3)		FIRR3)	

Conditions and Development Impacts:

1. Shitaisi
1) To increase the cropping area rate from 171% to 200% by irrigation.
2) At present a farmer's land holding size is 0.67ha, but the size will gradually increase with the decrease in the number of farmers in the future.
3) The cultivation style will be kept, and profitable and stable crops should be selected.
4) The amount of organic matter applied should increase for soil fertility.
5) To make good use of constructed dams and natural water.
6) To plan the facilities by using the standard draught rate of 1974.

2. Yintan(Qingquangou intake works expansion plan)
1) When the water level of the Tanjiang dam is high, 100cu.m/sec of water can be intaked by gravity through public head races.

Development Impacts:
1) Creation of employment opportunities.
2) Improving living standards.
3) Contribution to acquire foreign currency with the increase of soy

5.TECHNICAL TRANSFER

(1) Joint works of Japan and China (China organized the survey team similar to the Japanese team)
(2) Organizing seminars
(3) 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)

The Government of China requested a Grant Aid of the Government of Japan for the Shitaisi Area. The Government of Japan approved donation of 13 pumps out of 23 pumps and incidental machines.Public engineering/construction works are done by the Chinese side.
1990.5 - 1990.8 : Basic design study
1991.7.1 : E/N (1,635 million yen)
1993.3.15 : Final completion of the project scheduled
(FY1992 Overseas Survey)
1) Shitaisi: a) An alteration of the Intake Plan from 5.5cu.m/sec estimated by the JICA Study to 8.4 cu.m/sec. b) Installation of 3 pumps at the 1st class station is completed. c) Installation of 3 pumps at the 2nd class station is in progress. d) Installation of 3 pumps at the 3rd class, the 4th class and the 4-1 class stations is expected to end in March 1993. e) Construction of the bridge for canals is delayed due to lack of finance. f) Construction of power stations is in progress. g) Construction of all irrigation facilities is scheduled to end in 1995.
2) Yintan: a) The Intake Plan was altered from 60 cu.m/sec estimated by the JICA Study to 87 cu.m/sec due to 20,000ha increase of the proposed irrigation area b) Completion of buildings at the pumping station c) Installation of 8 out of 12 pumps.(cost: 2 bil. yuan) Started operation. d) Rest of construction work is discontinued due to lack of finance.

(FY1994 Domestic Survey)
The project has completed on Aug. 1994.

2.MAJOR REASONS FOR PRESENT STATUS

The Government of China recognized that agricultural development is a key issue for economic development of China. Therefore, the Government decided to develop the granary of the Hubei Province with a top priority.

3.PRINCIPAL SOURCE OF INFORMATION

①、②、③、④

和名 湖北省北部農業水利開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

ASO CHN/S 309/88

Compiled Mar.1990
Revised Mar.1996

I. OUTLINE OF STUDY

1.COUNTRY: China

2.NAME OF STUDY: Guanyinye Reservoir Project

3.SECTOR: Social Infrastructu/Water Resource Development

4.REFERENCE NO.:

5.TYPE OF STUDY: F/S

6.COUNTERPART AGENCY: Bureau of Water Resources and Electric Power, Liaoning Province

7.OBJECTIVES OF STUDY: Economic evaluation of Guanyinye Dam and technology transfer of the RCD method

8.DATE OF S/W: 1986/9

9.CONSULTANT(S): Nippon Koei Co., Ltd.
Dam Engineering Center

10.STUDY TEAM

No.of Members 16

Period Apr.1987-Oct.1988(18 months)

Total M/M	Japan	Field
84.97	46.79	38.18

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY: None

12.EXPENDITURE

Total	276,557 (¥'000)
Contracted	251,622

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA: Taizi River, 40 km upstream from Benxi City, Liaoning Province

2.PROJECT COST (US$1,000) in early 1988 price

	Total Cost	Local Cost	Foreign Cost
1)	376,000	214,000	162,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1)Reservoir (size 2,785 sq.km, the total amount of water 2,168 million cu.m)

2)Dam (height 82m, length 1,040m, width 10m, volume 1.97 million cu.m)

3)Hydro-power plant (3 units of 6,500kw each)

4)Sub-dam (height 36.2m, length 194m, volume 88,000 cu.m)

Imp. Period: 1989.6-1994.6

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	13.10	FIRR1)	8.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Conditions]
- The supply of irrigation water, the flood control, the generation of electricity, and fish farming are calculated as the benefits. Tourism at the Reservoir is not included.
- The price of the begin of 1988 is the standard price.
- The evaluation period is 50 years.

[Impacts]
1) Industrial water supply (687 million cu.m per year)
2) Irrigation (17,600 ha, annual water intake of 280 million cu.m)
3) Flood control (two cities and rural areas)
4) Power generation (75.52 GWh per year)
5) Fish culture (710 tons per year)

5.TECHNICAL TRANSFER

1. RCD construction method developed by MOC Japan
2. F/S procedures
3. Japanese hydrological study method

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 included in the Second Yen Loan (1985-1989) and the Third Yen Loan (1990-1994), and is now under implementation.

Aug. 1988 OECF L/A signed (2,846 million yen) for the dam
Dec. 1989 Dam construction commenced (Nippon Koei Co. and Dam Engineering Center)
Nov. 1990 OECF L/A signed (6,445 million yen) for construction equipemnt, generators, early flood warning system, etc.)
Dec. 1995 Dam construction scheduled to be completed

(FY1991 Overseas Survey)
No additional information.

Contents of OECF Loan
1)Main-dam(Gravity concrete type, Height82m, Length 1,140m, the total amount of water 2,168 million cu.m)
2)Sub-dam
3)Hydro-power plant(3units of 6.5MW each)
4)Electric delevery line(4.5km, 66kv)
5)Flood pre-caution system

(FY1994 Domestic Survey)
Construction of dam body has completed 85% in concrete vloume. On September 28,1994 reservoir impounding was commenced by closing gate of temporary bypass conduit. Construction works including fourdation grouting work and powerhouse work are progressing steadly. A ceremony of overall completion of the project is slated for October 1995 as scheduled.

(FY1995 Domestic Survey)
The ceremony of commencement of the construction works held on September, 1995. It is expected to complete on December, 1995.

(FY1995 Overseas Survey) No ponticular change.

2.MAJOR REASONS FOR PRESENT STATUS

The funding for the project is in progress.

3.PRINCIPAL SOURCE OF INFORMATION

①、②、④

和名 観音閣ダム建設計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASO CHN/S 310/88

I. OUTLINE OF STUDY

1.COUNTRY China

2.NAME OF STUDY
Beijing Airport International Terminal Area Development

3.SECTOR
Transportation/Air Transportaion & Airport

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Civil Aviation of China (Air China International after April 1991)

7.OBJECTIVES OF STUDY
Development Plan for a passenger terminal of Beijing Airport

8.DATE OF S/W 1987/9

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

10.STUDY TEAM
No.of Members 6
Period Mar.1988-Jan.1989(11 months)

Total M/M	Japan	Field
39.50	24.00	15.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic survey and boring

12.EXPENDITURE

Total	99,947 (¥'000)
Contracted	93,153

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Beijing Airport

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	262,438	118,900	143,538
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
-Passenger terminal expansion 129,000 sq.m
-New cargo terminal 9,000 sq.m
-Administration building 9,000 sq.m
-Staff housing (family, single use) 65,000 sq.m
-Car park extension 41,700 sq.m
-Power substation extension 10,000KVA x 2
-Storage tank and accessories (expansion) 2,700 cu.m x 2
-Sewage treatment 3,300 cu.m/day
-Dump pit treatment & disposal 30 cu.m/day
-Aircraft refuelling tanks 3,500kl x 6
-Apron expansion, loading 19 night stay 6 positions
-Utilities (power, boiler 65t/hr x 5, generater 3,000KW x 3, gas, etc.)

Imp. Period: 1991.4-1994.12

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	24.40	FIRR1)	9.30
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Development Impacts:
The present Beijing Airport is unable to accommodate the growing number of passengers. The project will facilitate the increase of passenger arrivals for tourism and business. Increased airplane operations will contribute to the improvement of balance of payments and the creation of employment.

5.TECHNICAL TRANSFER
OJT on the methods of study and planning, especially passenger movement survey and analysis.

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)
Based on the results of the study, the Yen Loan Agreement amounting to 12.3 billion yen has been concluded for the Project with the local currency portion of the fund to be supplied by China Construction Bank in the amount of 1.5 billion yuan.

Beijing Capital International Airport Authority invited concept design proposals in December 1992 for construction of Beijing International Airport terminal building from 4 airport design consulting firms including foreign firms.

The accepted concept design will be bought out by the Government and the detailed design will be developed from this concept design.

A group of Chinese design houses commenced the design development work in the middle of 1993.

OECF signed L/A on Beijing Capital Airport Development Project (8,106 million yen) in Aug. 1993.

(FY1994 Domestic Survey)
After F/S was over, Chinese Government invited proposals worldwide for design services. As a result, Lockheed Air Terminal was awarded a contract.
However, due to the unknown reason, the contract was cancelled and Architect Design Institute of Beijing Municipal Office was awarded as a new contract. Chinese Government requested 3rd and 4th OECF Loan Agreements.
The Airport construction works have not started yet.

(FY1994 Overseas Survey)
The number of passengers at Beijing Airport drastically increased due to rapid economic growth. Since the number was much more than expectation of JICA's F/S revision of the project plan was needed. In 1993, Lockheed Co. Ltd. (US) won the international bid and got an order of conceptual design of the airport development. The Beijing City Institute of Architectural Design presented a detailed early - stage blueprint is under inspection by Civil Aviation of China and the Chinese government. As soon as an admission is given construction will be started. (Completion of detailed final design and beginning of the construction are scheduled in 1995.)
Estimated total cost of the project is 6.05 billion yuan. A of 8,106 billion yen (0.86 billion yuan) loan was concluded with OECF in August 1993. As to oterh loans, 1 billion yuan was lent from the Aviation Department Fund of Civil Aviation and 2 billion yuan from the People's Development Bank of China. Moreover, financial support

2.MAJOR REASONS FOR PRESENT STATUS
Priority in project implementation is being discussed at the government.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③、④、⑥
- Control Section of Expansion Works, Dept. of Aviation, Beijing International Airport

和名 北京首都空港施設地区拡張計画

Continued on {F/S,D/D}

状況（要約表添付文書）

ASO CHN/S 310/88 (F/S)

Name of Study: Beijing Airport International Terminal Area Development

Country: China

Type of Study: F/S

Sector: Transportation/Air Transportaion & Airport

Present Status: Processing

(Description)

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Major revisions of JICA's F/S are as follows:
1) passenger terminal expansion from 120,000 sq. , to 240,000 sq. m,
2) eight plane arrival/departure spaces (fingers) addition so as to the number of them make 33 in total,
3) the shape of the passenger terminal change into mountain-shaped,
4) rise of estimated total cost from 2.2 billion yuan to 6.05 billion.

(FY1995 Domestic Survey)
The basic design of this project has been drawn up and completed by the control Section of Expansion Works, Dept. of Aviation, Beijing International Airport by means of Japanese Yen Credit on August, 1995. The construction works will be carried out by certain domestic contractor selected as the successful bidder of the limited tender. Implementation is expected to be commenced on October, 1995.