PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 202B/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Local Water Supply Projects

3.SECTOR
Public Utilities/Water Supply

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Local Water Utilities Administration

7.OBJECTIVES OF STUDY
F/S of the emergency project based on the master plan

8.DATE OF S/W Mar.1981

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

10.STUDY TEAM

No.of Members 9
Period Jun.1981-Jun.1982(12 months)

Total M/M	Japan	Field
79.95	34.72	45.23

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	182,931 (¥'000)
Contracted	180,464

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Laoaq district (Ilcos Norte Province), Leqaspi City and Daraqa Town (Albay Province), Tagbilaran City (Bohol Province)

2.PROJECT COST

(US$1,000) (US$1=7.80P)		Total Cost	Local Cost	Foreign Cost
	1)	16,620	6,220	10,400
	2)	8,640	3,720	4,920
	3)	6,510	2,670	3,840

3.CONTENTS OF MAJOR PROJECT(S)
(1) Laoaq area: water intake conduits, deep wells, transmission and distribution pipes, etc. (4,130 cu.m/day)
(2) Leqaspi area: spring water, transmission an distribution pipes, etc. (6,480 cu.m/day)
(3) Daraqa town: spring water, transmission and distribution pipes, etc. (4,320 cu.m/day)
(4) Taqbilaran city: deep wells, distribution reservoirs, distribution pipes, etc. (1,700 cu.m/day)
(5) Total water quantity: 16,630 cu.m/day (Planned development quantity)

The above project costs for Phase 1 and Phase 2 are 1) Laoaq area, 2) Leqaspi area, 3)Daraqa town. The project costs for Taqbilaran city are as follows. Total Cost:6,560, Local Cost:2,510, Foreign Cost: 4,050.

Imp. Period: Jan.1984-Dec.1986

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:		
Yes	EIRR1)	FIRR1)
	EIRR2)	FIRR2)
	EIRR3)	FIRR3)

Conditions and Development Impacts:
Conditions: Master plan on the water supply system for the target year of 2010 has been established, which was divided into three phases.
F/S was carried out for two cases: the initial project of Phase 1, the combined project of Phase 1 and Phase 2.
Development impacts: Increase of services area and served population, safe, continuous and stable water supply, improvement of environmental hygiene, decrease of fire injury, increase of land prices and expansion of employment opportunities.
EIRRs for different districts are as follows.

	Phase 1	Phase 1+Phase 2
Laoaq area	11%~14%	9%~11%
Leqaspi area	24%~37%	14%~18%
Daraqa town	40%~49%	17%~24%
Tagbilaran city	14%~18%	16%~19%

5.TECHNICAL TRANSFER
Carried out the training program on investigation, planning and management of water works for four counterparts. Two counterparts have studied and prepared studies with project team.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
After Marcos Regime fell, the contents of this project were changed drastically.
Only the Laoag area (Ilocos Prov.) was selected from the project and grouped with two other cities to apply for OECF finance.

Jan.1988 OECF L/A signed (381 million yen)
May 1990 D/D completed and construction works started.
Nov.1994 Construction to be completed

2.MAJOR REASONS FOR PRESENT STATUS
The scope of the project was reviewed and modified by the present administration after Marcos Regime fell.

3.PRINCIPAL SOURCE OF INFORMATION
①④

和名 地方都市上水道計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 201A/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project of the Port of Irene

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
The Philippine Ports Authority(PPA)

7.OBJECTIVES OF STUDY
Preparation of Master Plan(Target year 2000) and Short-term Development Plan (Target year 1987)

8.DATE OF S/W Feb.1981

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 9
Period May.1981-Mar.1982(11 months)

Total M/M	Japan	Field
46.98	35.10	11.88

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geological and oceanographic survey

12.EXPENDITURE

Total	135,996 (¥'000)
Contracted	101,988

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Port Irene at Casambalangan Bay

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	12,941	4,167	8,774
(US$1=7.95P)	2)			

3.CONTENTS OF MAJOR PROJECT(S)
Main projects (Target year 2000):
- 2 berths for foreign trade (-10m, 15,000dwt)(New construction)
- 3 berths for domestic trade (-7.5m, -5.5m) (New construction)
- 1 Container berth for domestic trade (-7.5m)(New construction)
- Construction of sheds, warehouses, fishing ports

* Above project costs are for short-term plan.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development of this port in short-term plan will increase the employment opportunity and the income through the development of the Cagayan Valley where agriculture and forestry are main industry.

In long-term plan development of this port will strengthen the basis of industry in this region and contribute to the development of sea transportation system in the Philippines.

5.TECHNICAL TRANSFER
1) On the job training to counterpart ; 2) Counterpart training
3) Preparation of report by cooperation with counterpart
4) Use the local consultant for oceanographic survey and boring

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
A feasibility study was subsequently undertaken on the short-term plan.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 アイリーン港整備計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 201B/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project of the Port of Irene

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
The Philippine Ports Authority(PPA)

7.OBJECTIVES OF STUDY
Preparation of Master Plan(Target year 2000) and Short-term Development Plan (Target year 1987)

8.DATE OF S/W Feb.1981

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 9
Period May.1981-Mar.1982(11 months)

Total M/M	Japan	Field
46.98	35.10	11.88

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geological and oceanographic survey

12.EXPENDITURE

Total	135,996 (¥'000)
Contracted	101,988

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Port Irene at Casambalagan bay

2.PROJECT COST
(US$1,000)
(US$1=7.95P)

	Total Cost	Local Cost	Foreign Cost
1)	12,941	4,167	8,774
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Short-term projects:
Wharf for foreign trade (-10m) 1berth (200m)
Mooring basin (-10m) 750 thousand cu.m
Transit shed (40mx90m)
Road (width 10m) 1.6km

Imp. Period: Oct.1983-Dec.1986

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	25.20	FIRR1)	5.20
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions:
Cargo throughput projection (1987) for the short-term plan are based on the development prospects of Cagayan Province. The projection for the long-term plan (2000) is based on the development prospects of the northeastern region of Luzon Island.

Impacts:
The port will function as one of the development centers for the Cagayan Valley area and contribute to the increase of employment and income among the local population.

5.TECHNICAL TRANSFER
OJT and JICA training for counterparts

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Sep.1983 OECF loan agreement signed (E/S, 240 million yen)
Aug.1986 D/D completed

(FY 1991 Overseas Survey)
The project implementation has been suspended since the political change in 1986 and is now considered unlikely.

2.MAJOR REASONS FOR PRESENT STATUS
(1) Due to the delay of road construction and the shortage of cargo handling volume.
(2) The change of the administration in 1986.

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 アイリーン港整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 311/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Dalton Pass Tunnel Project

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Construction of Tunnel and Planning of Road Disaster Prevention

8.DATE OF S/W Feb.1981

9.CONSULTANT(S)
Katahira & Engineers International

10.STUDY TEAM

No.of Members 11
Period May.1981-Mar.1982(10 months)

Total M/M	Japan	Field
68.76	13.93	54.83

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geotechincal Investigations
Traffic surveys including OD surveys

12.EXPENDITURE

Total	217,540 (¥'000)
Contracted	215,452

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Dalton Pass, Nueva Vizcaya

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)			
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The Route No. 5 (Philippine-Japan Friendship Highway) is a main truck line connecting between the Luzon Central Plain including the Metro Manila Region and the Cagayan Valley Region in the north. During the typhoon season, the Dalton Pass Region is cut off due to landslides, roadcuts, collapsed bridges, etc. Considering this situation, the realization of the tunneling project was proposed in the Dalton Pass Region.

Imp. Period: .1983~.1990

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	17.80	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
As an assumption, the forecasted daily traffic in 2015 should be 7910 vehicles per day and a ventilation of jet-fan type, which will be at the first stage applied, shall be changed to the shaft type. The electric power for tunnel facilities shall be secured from the Gabat Substation which would be completed in 1982.
The development benefits involve to ensure the traffic in the Dalto pass Region, and reduction of travel time and the price increase due to cut off of roads at Dalton Pass which causes a detour through Route No. 3 connecting with Metro Manila Region.

5.TECHNICAL TRANSFER
OJT to counterparts on traffic survey and data analysis.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The Dalton Pass Section of the Philippines-Japan Friendship Highway is always prone to road closure everytime strong rains or typhoons hit this part of Northern Luzon. Six provinces in the Cagayan Valley Region and the Cordillera Autonomous Region are isolated from the rest of Luzon when the Dalton Pass Section is made unpassable by landslides and road cuts. Because of this problem, the GOP decided to request JICA for a feasibility study to determine the viability of constructing a tunnel. However, although the study indicated the technical and economic feasibility, the proposed project was postponed because of the large cost needed for implementation.
At present, the road disaster prevention works along the existing routes, which require less costs, are being undertaken by applying the measures suggested in the study.

(FY 1992 Overseas Survey)
The existing road was seriously affected by the earthquake in July 1990, and the Philippine Government began to consider whether the road should be rehabilitated or the alternative road should be constructed. GOP has requested Japan to undertake a study on the road network in entire Luzon (including Dalton Pass). The study is expected to be completed in April 1993.

2.MAJOR REASONS FOR PRESENT STATUS
Judging by the present economic situation, the implementation of a big project seems to be unrealistic within the limited budget of the Ministry in charge.

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 ダルトン・パス・トンネル計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 312/82

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Metro Manila Outer Major Roads Project (Southern Package)

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Road Planning

8.DATE OF S/W Dec.1980

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members 12
Period Mar.1981-Mar.1982(13 months)

Total M/M	Japan	Field
69.03	9.86	59.17

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic survey, soil survey, Analysis of samples

12.EXPENDITURE

Total	171,819 (¥'000)
Contracted	166,210

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Southern area of Manila Metropolitan zone including Las Pinas Paranaque and Muntinlupa

2.PROJECT COST
(US$1,000)
(US$1=225Yen=7.95peso)

	Total Cost	Local Cost	Foreign Cost
1)	92,200	63,000	29,200
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- Improvement of roads, 17.8km
  (1) Paranaque to Sucat Road (7.5km) for expansion 2 lanes to 6 lanes
  (2) Zapote to Alabang Road (10.3km) for expansion 2 lanes to 4 lanes
- New road construction, 20.7km
  Taguig-Las Pinas - Muntinlupa Road

Stage 1(1983-86): A-Route will be widened to a divided four-lane road with auxiliary lanes; B-Route will be improved only at the westernmost section, about 1.6km in a new alignment connecting directly to the Manila-Cavite Coastal Road; The northern section(about 7.8km long) of C-Route will be constructed to a carriageway of 12.25m.
Stage 2(1991-94): The remaining section of B-Route will be widened; The southern section of C-Route will be extended to Mnutinlupa, while the northern section will be widened; The western section of A-Route will be widened to a divided six-lane road.

Imp. Period: .1985-.1994

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:				
Yes	EIRR1)	40.00	FIRR1)	
	EIRR2)		FIRR2)	
	EIRR3)		FIRR3)	

Conditions and Development Impacts:
The project aimes to improve the road network in the southern part of Metro Manila, and the feasibility study was conducted for three roads: Paranaque-Sucaf Road (existing) 7.5km, Zapote-Alabang Road (existing) 10.3km, Taguig-Las Pinass-Muntinlupa Road (new construction), Total length 38.5km.

(Assumptions for IRR calculation)
1) Discount rate of 15 % p.a. 2) 20 years of the benefit stream after the completion of the first stage,i.e.,1987-2006.

(Development Impacts)
Future traffic demand is expected to increase; therefore, this road planning project should contribute to ease traffic congestion as well as to other development projects in the southern region.

5.TECHNICAL TRANSFER
OJT and JICA training program for counterparts

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY 1992 Overseas Survey)
1.Widening of the Paranaque to Sucat Section
Jul.1986 - Mar.1990. Detailed design by DPWH funds(TCGI Engineers)
May.1990 Construction commenced partly by IBRD fund (L/A Sept. 1984,US$102 million) and partly by own funds(179 million pesos).

2.Widening of the Zapote ~ Alabang Section
Detailed design completed with IBRD finance. D/D completed in 1991 by GOP funds.

3.Taguig ~ Las Pinas ~ Muntinlupa Section
The F/S was reviewd during Apr. - Aug. 1986(funded by the World Bank). The original proposal was rerouted to the section from Taguig to Paranaque (12.9km) which skirts the southern periphery of the International Airport. The new route was named Southern Section of C-5 and the 14th OECF Yen Credit was approved.
Jan.1988 OECF loan (Ph-P88) L/A signed (E/S package loan 20 million yen)
Apr.1989 - Jan.1991.
Detailed Design(C-5 Western and Southern Sections) completed(Katahira & Engineers)
Jan.1988. OECF loan (Ph-P78) L/A signed (4,837 million yen for southern C-5 and eastern R-4 connecting C-4 (EDSA) and C-5)

2.MAJOR REASONS FOR PRESENT STATUS
Paranaque-Sucat Road:
Since this was considered very urgent, DPWH started by its own fund
Other roads:
For administrative and economical reasons, DPWH is hoping for external finance from OECF or IBRD

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 マニラ首都圏南部地区幹線道路網計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 305/82

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Mabini Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Administration (NIA)

7.OBJECTIVES OF STUDY
Stabilization of the people's livelihood and improvement of the income by the construction of rock fill dam and new irrigation system

8.DATE OF S/W Feb.1981

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

10.STUDY TEAM
No.of Members 15
Period Sep.1981-Mar.1982(7 months)

Total M/M	Japan	Field
44.96	15.17	29.79

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	106,975 (¥'000)
Contracted	99,241

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The north-east District of Luzon island Pangasinan province, Mabini

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	127,129	55,698	71,431
US$1=8Ps	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Irriqation Area : 11,500 ha
Dam :Central core type rockfill dam(H:88.5m L:530m)
Effective Capacity 240 MCM
Irriqation head race: 7.7 km (0.7km tunnel)
Main Canal : 52.5 km (Q=20.5-10.1cu.m/s)
Branch Canal : 135.3 km

Imp. Period: .1983-.1988

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:				
Yes	EIRR1)	12.80	FIRR1)
	EIRR2)		FIRR2)
	EIRR3)		FIRR3)

Conditions and Development Impacts:
Conditions:
Benefit by irriqation and hydroelectric power qeneration

Development Impacts:
Increase of aqricultural products,
Rise in aqricultural income,
Reduction of flood damage by dam construction

5.TECHNICAL TRANSFER
1.OJT
2.Acceptance of Trainees (2 persons)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Owing to the change of administration in 1986, the Government of the Philippines did not manage to evalute the priority of the proposed project. The Government of the Philippines has no plan to find financial assistance.

2.MAJOR REASONS FOR PRESENT STATUS
Adjustment of project priority in the govenment from Marcos regime to Akino regime.

(FY 1992 Overseas Survey)
Economic and political circumstances.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マビニ地区農業開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 306/82

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Alcogas Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Philippine National Alcohol Commission (PNAC)

7.OBJECTIVES OF STUDY
To clarify the feasibility on the agricultural and industrial development plan of raw materials and alcohol production

8.DATE OF S/W Dec.1980

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Chuo Kaihatsu International Corp.

10.STUDY TEAM
No.of Members 11
Period Mar.1980-Mar.1982 (29 months)

Total M/M	Japan	Field
32.00	10.00	22.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	139,123 (¥'000)
Contracted	101,171

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Maragondon, Cavite Province, Luzon Island (Area 13,000ha)

2.PROJECT COST

(US$1,000) US$1=8P		Total Cost	Local Cost	Foreign Cost
	1)	23,290	12,890	10,400
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1.Cropping Area : 3,040ha (including Sugarcane 2,380ha)
2. Main Roads : 4km
3. Secondary Roads : 118km
4.Related Structures : Bridges 2, Culverts 23

Note:
The cost above includes the industrial component.

Imp. Period: Jan.1981-May.1986

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:				
Yes	EIRR1)	9.70	FIRR1)
	EIRR2)		FIRR2)
	EIRR3)		FIRR3)

Conditions and Development Impacts:
Conditions of Project Evaluation:
Agricultural Benefit is estimated based on the difference in net agricultural benefit between with and without the project conditions.
Development Impact:
- Increase of farmers' income
- Increase of employment opportunity
- Improvement of local transportation

*EIRR calculated includes industrial section.

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

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The Government of the Philippines suspended the implementation of this project because of the fall in the price of crude oil.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 アルコガス計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (Basic Study)

ASE PHL/S 501/82

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Topographic Mapping Project for Cagayan Valley

3.SECTOR
Social Infrastructures/Survey & Mapping

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
Ministry of Defense, Dept.of Coastal Survey

7.OBJECTIVES OF STUDY

8.DATE OF S/W Mar.1978

9.CONSULTANT(S)
International Engineering Consultants Association

10.STUDY TEAM

No.of Members 19
Period Feb.1979-Feb.1983(48 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	931,676 (¥'000)
Contracted	803,651

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Northern part of Luzon Island (from Ilaqan of Isabela Prov. to Aparri of Caqayan Prov.: 11,000 sq.km)

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
1st year: aerophotos (1/30,000, 15,000 sq.km)
2nd year: datum points surveyed
3rd year: aero-trianqulation and orthoscopic photos
4th year: aero-trianqulation, topographic original maps, ortho-photo maps
5th year: topographic maps (1/25,000, 72 plates)

4.CONDITIONS AND DEVELOPMENT IMPACTS

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY 1991 Overseas Survey)
Geodetic control data from the study were used by government and private surveyors. Topographic maps were used for the development planning of the mapped areas, particularly in river basins and coastal zones.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 カガヤン・バレー地区地図作成

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (F/S)

ASE PHL/S 313/83

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Metro Manila Outer Major Roads Project (Northern Package)

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
To evaluate the feasibility of the outer major roads in economic, financial and technical aspects

8.DATE OF S/W Feb.1982

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

10.STUDY TEAM
No.of Members 10
Period Jun.1982-Jun.1983 (12 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	161,996 (¥'000)
Contracted	156,087

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
C-5, C-6, Mindanao Av. and Visayas Road in Metro Manila

2.PROJECT COST
(US$1,000)
(US$1=14.0pesos)

	Total Cost	Local Cost	Foreign Cost
1)	77,697	44,214	33,483
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Stage 1: Construction of the project roads.
Phase 1: Construction of radial roads
Phase 2: Construction of the rest of the project roads
Stage 2: Upgrading and widening the project roads, grade separation on selected major intersections.

ROAD SECTION	NO. OF LANES STAGE1	PHASE1/PHASE2	STAGE 2
C-5	6	8	20
C-6	4	2	10
Mindanao Ave.	6	2	14
Visayas Ave.	4	-	4
Total	20	12	48

Note) Stage 1(1984-1990):Construction of Phase 1(1986-1988),Phase 2(1989-1990), Stage 2(1993-1996):Construction of Stage 2(1995-1996)

Imp. Period: .1984-.1996

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	46.30	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

[Assumptions]
1) The opportunity cost of capital at 15%.
2) Benefit calculation is 20 years after the construction of Phase 1, Stage 1.
3) Shadow price of the foreign component by an additional 18%.
4) No salvage value to the road structure after the study period.

[Development Impacts]
1) Reduce traffic costs due to improved level of service.
2) Faster travel compared to their old congested and circuitous routes.
3) Alleviate the serious traffic congestion
4) Contribute to the more orderly urban development in Metro Manila.
5) Direct or indirect contribution to the national economy.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

1984~1985 Detailed design of Mindanao Avenue Extension with IBRD funds (by Renarde S.A.)
May.1989 OECF L/A (PH-P95) signed (Metro Manila Outer Major Roads 4,776 million yen)
Project: Mindanao Av. Extension (8km, 6 lanes), R-10 widening (6km), C-3 Southern Section (9km, 6 lanes) and related roads (23km)
Nov.1990~Jun.1992
Detailed design on the northern part of C-5, utilizing part of the OECF E/S Package Loan.
Feb.1992 Construction of Mindanao Av. Extension commenced (scheduled to be completed in Dec.1993)
Total investment 229 million pesos (foreign currency 172 million, local currency 57 million)

No funding has been secured for the construction of the northern part of C-5.
No action has been taken regarding the northern part of C-6 and Visayas Ave.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③④

和名 マニラ首都圏北部地区幹線道路網計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 307/83

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Matuno River Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Authority
National Power Corporation

7.OBJECTIVES OF STUDY
Combined irrigation and hydropower development on Matuno river

8.DATE OF S/W Oct.1981

9.CONSULTANT(S)
Chuo Kaihatsu International Corp.

10.STUDY TEAM
No.of Members 17
Period Jan.1982-Feb.1984(26 months)

Total M/M	Japan	Field
101.93	36.23	65.70

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	302,187 (¥'000)
Contracted	287,093

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
20,000ha in Bayombong valley in Nueva Vizcaya Province

2.PROJECT COST
(US$1,000)
US$1=240Yen in 1983

	Total Cost	Local Cost	Foreign Cost
1)	424,067	166,015	258,052
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
First phase development
- Irrigation benefit area: 13,680 ha
- headworks: 3 sites
- main irrigation canal: 90 km
- secondary irrigation canal: 193 km
- main drainage canal: 90 km
- secondary drainage canal: 193 km

Second phase development
- dam height: 147 m
- reservoir 1 site; 137 X MCM

Imp. Period: .1984-.1996

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	18.50	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Project impacts:
1. Increase of employment opportunities
2. Expansion of regional economy
3. Increase of resources for public investment funds
4. Saving of foreign exchange

5.TECHNICAL TRANSFER
1.Training in Japan 2.OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
New irrigation and hydropower development projects have been largely suspended in the Philippines due to the worsened financial position of the Government. The proposed project is among the projects which have been shelved.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 マツノ川開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 308/83

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Improvement Project of the Operation & Maintenance of National Irrigation Systems (UPRIIS)

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Administration

7.OBJECTIVES OF STUDY
To identify the constraints of the existing irrigation system, and to propose the improvement/rehabilitation plans

8.DATE OF S/W Jul.1982

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

10.STUDY TEAM

No.of Members 10
Period Sep.1982-Feb.1984 (18 months)

Total M/M	Japan	Field
59.81	15.44	44.37

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	183,882 (¥'000)
Contracted	147,788

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Upper Pampanga River Basin in Central Luzon
(Nueva Ecija & Bulacan Provinces)

2.PROJECT COST

(US$1,000) US$1=11P		Total Cost	Local Cost	Foreign Cost
	1)	83,290	32,918	50,372
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1. Irrigation Area : 112,000ha
2. Rehabilitation Works
 - Diversion Dams : 8
 - Irrigation Canals : Diversion Canals 46.6 km
 Main Canals 236km
 - Drainage Canals : 99 km
 - River improvement : 44 km
3.Introduction of Centralized Monitoring System
 - Base station : 5 stations
 - Field station : 48 stations
4.Improvement of system Operation office(NIA)
5.Improvement of Farmer's Organization

Imp. Period: Jan.1985-Jun.1994

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	19.30	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Condition:
Project benefits are comprised of irrigation benefit, flood control benefit and reduction of personnel expenses for operation and management of the project.
Irrigation benefits are expected to be the increment of paddy between without and with project conditions. Flood control benefits are the expected reduction of flood damages for crops, private property, public facilities and indirect lossess.
Reduction of personnel expenses will be expected by the introduction of the monitoring system, strengthening work load of field staff,etc.
Project Impacts:
1.Increase of rice production
2.Increase of employment opportunity
3.Increase of farmer's income ; 4.Decrease of flood damage

5.TECHNICAL TRANSFER
Technology transfer to counterparts in the course of the study.
Group training in Japan (one person).

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The Government of the Philippines has been trying to obtain Japanese grant aid and technical assistance for the proposed project but unsuccessful to date.

(FY1991 Overseas Survey)
Still awaiting funding.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 かんがい組織維持管理強化計画 (UPRIIS)

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 309/83

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Improvement Project of the Operation and Maintenance of National Irrigation Systems (AMRIS)

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
NIA (National Irrigation Administration)

7.OBJECTIVES OF STUDY

8.DATE OF S/W Feb.1982

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

10.STUDY TEAM

No.of Members 21
Period Sep.1982-Feb.1984 (17 months)

Total M/M	Japan	Field
79.05	14.11	64.94

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	183,882 (¥'000)
Contracted	204,964

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Bulacan and Pampanga Provinces, Central Luzon Islands, area 35,000 ha

2.PROJECT COST
(US$1,000)
US$1=11P in 1982

	Total Cost	Local Cost	Foreign Cost
1)	46,450	23,723	22,727
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Diversion weir : building & repair 4 places
Irrigation canal : building & repair 271.3 km
Drainage canal : building & repair 202.3 km
Road : building & repair 285.8 km
Terminal facilities: 34,965 ha

* Above project costs are in 1982 prices.

Imp. Period: Jan.1984-Dec.1990

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	17.53	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Conditions:
- Cost reduction through repair of facilities and improvement of maintenance and management function
- Increase of profit by intrduction of field crops

Development Impacts:
- Effective use of state-operated irrigation facilities implemented by NIA
- Improvement of maintenance and management function by improving irrigation and drainage facilities in newly expanded areas

5.TECHNICAL TRANSFER
- transfer to NIA
- group training

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The Governement of the Philippines has been keen to reduce the operation costs, and improve the operational efficiency, of publicly-managed irrigation schemes. For this purpose, the Government has been implementing the rehabilitation of the existing facilities and the strengthening of farmers' organizations in order to transfer the management of irrigation facilities to the farmers. However, the pace of implementation slowed down considerably owing to the succession of political and economic destabilization.

(FY1991 Overseas Survey)
The Government of the Philippines is still awaiting the financing of the project.

2.MAJOR REASONS FOR PRESENT STATUS
All of the public investment has been delayed due to the deterioration of the Philippine economy.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 かんがい組織維持管理強化計画（AMRIS, 18地区）

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (Other)

ASE PHL/S 602/83

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Mayon Volcano Sabo and Flood Control Project (Re-Study)

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY Other

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Sabo plan for the area of southern slope of Mayon Volcano based on the disaster due to typhoon Daling in 1981

8.DATE OF S/W Feb.1982

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Sabo Technical Center

10.STUDY TEAM

No.of Members 12
Period Jun.1982-Mar.1983(10 months)

Total M/M	Japan	Field
56.63	33.03	23.60

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	144,352 (¥'000)
Contracted	138,421

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Surrounding area of Mayor Volcano in the southeast of Luzon

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	20,190	14,690	5,500
(US$1=8P)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

The Government of the Philippines tried to promote the implementation of the Mayon Volcano Sabo and Flood Control Project proposed by the Master Plan Study in March 1981, but the typhoon of June 1981 seriously affected the Project Area. The present study was undertaken to review the proposals of the Master Plan Study and identified emergency measures, including a detailed design of the top priority sabo works.

1st stage Sabo works (Training levee, slur dike, consolidation dam and sobo dam) : Quirangay River, Masarawag River, Nasisi River, Anuling River (1), Anuling River (2), Budiao River, Pawa-Burabad River

1st stage Disaster Prediction and Warning System

4.CONDITIONS AND DEVELOPMENT IMPACTS

The implementation of this project will contribute to the protection of the people's livelihood in the region sufferred from the disaster due to debris flow, so that the social stability and the better livelihood will be insured.

5.TECHNICAL TRANSFER

(1) The lecture of sabo technology for the counterparts was held in the local office.
(2) The training of sabo, hydroloy, river engineering and surveying was carried out

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

The following construction works in the southern slope proposed for the 1st stage were carried out by local fund.

Quirangay River : Training Levee No.2
Anuling River : Training Levee No.2, No.3 and No.4
Pawa-Burabod River : Training Levee No.5 and No.6

Mayon Volcano erupted and the huge debris flow (10 million cu.m) occurred in 1984. OECF was requested in 1989 (16th loan) to finance the construction including the eastern slope and the emergency works, but the application was turned down.

(FY 1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マヨン火山砂防計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/S 105/84

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Infanta - Real Area Urban Development Project

3.SECTOR
Social Infrastructures/Urban Planning & Land Development

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Human Settlement Development Corporation

7.OBJECTIVES OF STUDY
Master plan for the urban development in Infanta-Real area upon establishing the development strategy and target.

8.DATE OF S/W Apr.1983

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

10.STUDY TEAM

No.of Members 15
Period Jul.1983-Mar.1985(21 months)

Total M/M	Japan	Field
75.26	5.40	69.86

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	221,634 (¥'000)
Contracted	212,283

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Infanta, Real, and Nakar, Quezon, Luzon Island

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	615,000		
(US$1=20P)	2)			

3.CONTENTS OF MAJOR PROJECT(S)
(1) Improvement of transport conditions
(2) Development of regional natural resources (fishery)

4.CONDITIONS AND DEVELOPMENT IMPACTS
A master plan was undertaken for development, improvement and preservation of the study area in conjunction with the national and regional programs of the nation. In formulating the concept plan, proper urban functions were established and the kind and scale of development was reviewed taking into account the functional roles of the study area in development concept of the eastern Manila and eastern seaboard.

5.TECHNICAL TRANSFER
(1) Acceptance of trainees: One <1> counterpart (2 months)
(2) Use of Local consultant: Social, economic and financial analysis

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
In January 1988, the scope of work (F/S) on Infanta-Famy road and urban core development was signed by JICA. The rehabilitation of the Infanta-Famy road is financed by ADB, and currently under construction.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 インファンタ・リアル都市開発計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/A 101/84

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Nationwide Ice Plants and Cold Storages Network System

3.SECTOR
Fisheries/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Department of Agriculture

7.OBJECTIVES OF STUDY
To formulate a M/P for the IPCS Network System

8.DATE OF S/W Aug.1983

9.CONSULTANT(S)
System Science Consultants

10.STUDY TEAM

No.of Members 11
Period Nov.1983-Mar.1985(17 months)

Total M/M	Japan	Field
65.04	15.60	49.44

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Nil

12.EXPENDITURE

Total	167,813 (¥'000)
Contracted	156,761

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Nationwide

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	57,284	50,761	6,523
US$1=240Yen	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Selected 11 zone centres and 49 prototype sites from the priority area in the Philippines and designed the facilities upon the situation of each site. Each zone has zone centre and sub-centres.

Major components are listed as follows:
1.Basic facilities ice making plants, ice storage, freezer, freezing room, generator and mobile ice plant.
2.Supporting facilities ice transport vehicle/vessel, spare parts, warehouse for spare parts, workshop/equipment, management office lodging house and communication equipment
3.Infrastructure Land reclamation/consolidation, tube-well and other water supply facilities, electric distribution line, parking lot and access road.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Conditions:
1.Project life was assumed to last until 2020.
2.Discount rate was assumed to be 20%.
3.Prices based on 1984.
Development Impacts:
1.Direct benefits
1)Reduction of fish spoilage.
2)Shifting the time and location of fish sales
3)Increase of fish exports
2.Indirect benefits
1)Income increase of fishermen due to upgrading of value of fish
2)Development and effective use of fisheries resources
3)Creation of employment opportunities
4)Acceleration of rural development
5)Acquisition of new technics and organizing fishermen's association
6)Effective use of MFP

5.TECHNICAL TRANSFER
- Acceptance of trainees
- Joint work related to creation of report

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)

The Government of the Philippines requested in 1985 for the Engineering Service(E/S) of this program by the 13th OECF loan and the L/A (175 million yen) was signed in May 1985. The political change at the beginning of 1986 affected all projects and this project was also postponed.

The project was subsequently combined with another program (Fish Transport System) which was proposed by the JICA study undertaken during 1988 - 1989, and the OECF-financed E/S was completed in 1989 by the Pacific Consultants International.

The E/S selected 4 zones (Camarines Norte, Iloilo, South Cotabato and Zanboanga del Sul) and one prototype (Camarines Sul) out of 11 zones and 52 prototypes in the master plan study and conducted the follow-up study and detailed design and prepared tender documents.

(FY1991 Overseas Survey)

Based on the E/S, the Government of the Philippines included this combined project to the application list for the 17th Yen Credit Package. The project was not approved, but the Philippine Fishery Development Authority (PFDA) plans to reapply for the 18th Yen Credit Package.

The PFDA formulated a pilot project, the Intergrated Fish Trading Complex, on the basis of the project and submitted its proposal for grant aid to the Japanese Government. The request was not successful.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 水産物流通システム整備計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (F/S)

ASE PHL/S 316/84

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Philippine Road Disaster Prevention Project

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Public Works and Highways

7.OBJECTIVES OF STUDY
Formulation of disaster prevention measures for 3 selected sections of national highways

8.DATE OF S/W Feb.1983

9.CONSULTANT(S)
Nippon Engineering Consultants Co., Ltd.
Katahira & Engineers International

10.STUDY TEAM

No.of Members 8
Period May.1983-Jun.1984(13 months)

Total M/M	Japan	Field
	1.75	54.11

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geological and topographic surveys

12.EXPENDITURE

Total	181,268 (¥'000)
Contracted	160,257

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1)San Jose - Aritao (Northern Luzon)
2)Mahaplaq - Sogod (Leyte)
3)Rosario - Baguio (Northern Luzon)

2.PROJECT COST
(US$1,000)
(US$1=234.3Yen)

	Total Cost	Local Cost	Foreign Cost
1)	26,300	10,200	16,100
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Protection of Shoulder slope:
1)Dalton Pass Section 77 km
2)Mahaplaq - Sogod 37 km
3)Kenon Road 34 km
Total 148 km
- Surface drain
- Subsurface drain
- Re-cutting
- Slope protection
- Structural Work
- Sabo Dam

Note)Large scale riparian and Sabo works were excluded.

Imp. Period: Jul.1987-Jun.1990

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	18.40	FIRR1)
EIRR2)	14.40	FIRR2)
EIRR3)	16.60	FIRR3)

Conditions and Development Impacts:
Conditions:
(1)Traffic projections for 1990, 2000 and 2010 are estimated.
(2)Traffic stoppage due to road disasters are 16 days/year for Dalton Pass, 60 days for Mahaplaq, and 18 days for Kenon.

Development impacts:
(1)Better access to isolated areas.
(2)Recovery of road reliability.
(3)Stimulation of private investments.
(4)Saving of rehabilitation costs.

Note) The above EIRRs indicate 1)Dalton Pass Section, 2) Mahaplaq-Soqod, 3)Kenon Road.

5.TECHNICAL TRANSFER
OJT and JICA training program for counterparts

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
(FY1992 Overseas Survey)
After the construction of the Pan-Philippine Highway started in 1969, the pavement has deteriorated and numerous bridges also have shown signs of wear and tear. Disaster spots are found especially along mountainous sections of the Highway. The progress of the construction to rectify the deficiencies is as follows.
1. Dalton Pass(78km)
May 1988 OECF loan (Ph-P93) L/A signed (Special Rehabilitation 14,003 million yen)
Project: Rehabilitation of Laoag - Allacapan
Allacapan - Aritao - Sta. Rita, and Calamba - Calauag Sections.
Feb.1990 - May 1991
Detailed design(Pavement, Bridge, drainage & disaster prevention)on the Aritao - Santa Rita Section(200km) completed (Katahira & Engineers)
Total investment 1,017.3 million pesos
(OECF835.5 million, GOP181.8 million)
Jun.1991 Construction commenced (scheduled to be completed in Jan.1996)
2. Mahaplag - Sogod(37km) No funding has been secured.
3. Kennon Road(34km)
Jan.1988 OECF loan (Ph-P77) L/A signed (Kennon Road Disaster Prevention 2,254 million yen)

2.MAJOR REASONS FOR PRESENT STATUS
- large impact
- high priority

3.PRINCIPAL SOURCE OF INFORMATION
①③④

和名 道路防災計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 314/84

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project of the Port of San Fernando

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Philippine Ports Authority

7.OBJECTIVES OF STUDY
Preparation of Master Plan (Target year 2000) and Short-term Development Plan (Target year 1990).

8.DATE OF S/W Oct.1982

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 9
Period Feb.1983-Mar.1984(14 months)

Total M/M	Japan	Field
58.77	38.40	20.37

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Natural Conditions Survey

12.EXPENDITURE

Total	128,037 (¥'000)
Contracted	129,003

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Northern Luzon (Region I)

2.PROJECT COST

(US$1,000) (US$1=14P)		Total Cost	Local Cost	Foreign Cost
	1)	18,400	7,345	
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Wharf(Pier -10 - -14m) 900m
Dredging 4,500sq.m
Transit Sheds 32,000sq.m
Open Storage Yard 12,000sq.m
Roads 12,000sq.m

Imp. Period: Jan.1987-Dec.1989

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	22.90	FIRR1)	4.10
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Estimated cargo volume in 1990 and 2000 are:
1990 1,900 thousand tonnes
2000 3,700 thousand tonnes
The development of this promotes the port activities and contributes to the regional development in and around Region I, as there is no large scale port in this region.

5.TECHNICAL TRANSFER
Counterpart training for method of feasibility study to two counterparts

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The project was suspended after completion of F/S.
Jul. 1990 Port facilities were damaged by the earthquake
Aug. 1990 Construction of Pier 2 was started with own funds according to the result of JICA study
Feb. 1991 Construction of Pier 1 was started with own funds

(FY 1991 Overseas Survey)
The project is likely to be revived when the financing constraints are eased, but there is no prospect of securing funds.

2.MAJOR REASONS FOR PRESENT STATUS
(1) Shortage of finance
(2) Alternation from the Marcos Government to the new Government
(3) Problem of purchasing land
(4) Alternation in the amount of cargo and contents

(FY 1991 Overseas Survey)
(1) Technical or environmental problems.
(2) Review or new study is required.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 サンフェルナンド港整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 315/84

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project on the Meteorological Telecommunication System

3.SECTOR
Transportation/Meteorology & Seismology

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Philippine Atmospheric Geophysical and Astronomical Services Adm. Ministry of Defence (at F/S time)

7.OBJECTIVES OF STUDY
Establishment of Meteorological Telecommunication System

8.DATE OF S/W Nov.1982

9.CONSULTANT(S)
Japan Weather Association

10.STUDY TEAM

No.of Members 13
Period Aug.1983-Sep.1984(14 months)

Total M/M	Japan	Field
80.00	33.00	47.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	261,238 (¥'000)
Contracted	209,692

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Covering the whole country

2.PROJECT COST

(US$1,000) (US$1=238Yen)		Total Cost	Local Cost	Foreign Cost
	1)	18,626	2,206	16,421
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
- Telecom. facilities
  (1) Main Trunk Line: About 950km between Luzon Island and Mindanao Island
  (2) Branch Lines: Lines connecting each station
- OH transmitter/receiver, VHF and HF transmitter/receiver, Facsimile, Minicomputer etc.
- Standby power supply.
- Buildings and antenna of each relay station, access-road Meterological observation facilities.

Imp. Period: Sep.1988-Feb.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	51.90	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions
- Benefits are calculated on the condition that rate of natural disaster decrease is 5%.
- Completion of the Project is in 1995.
- Eight years is required for acquisition of technological knowledge by the staff concerned.
- Replacement of the equipment to be made every 10 years.

Development Impacts
- Mitigation of meteorological disasters
- Improvement of the safe operation of aircrafts and ships
- Improvement of the agricultural production development of related sectors(tourism, commerce, industry, etc.)

5.TECHNICAL TRANSFER
Technical guidance relating to telecommunication, data exchange system and observation system has been given to two (2) F/S counterpart officials.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The project is under implementation with OECF financing.

Jan.1988	OECF E/S loan agreement (308 million yen)
Sep.1989	D/D completed
Feb.1990	OECF loan agreement (4,986 million yen)
Jun.1992	Construction started
Feb.1995	Construction to be completed

2.MAJOR REASONS FOR PRESENT STATUS
(1) Greatness of project impact
  - Mitigation of meteorological disasters
  - Economic impacts resulting from mitigation of transportation disasters
(2) High priority of the project

3.PRINCIPAL SOURCE OF INFORMATION
①④

和名 気象通信網整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 310/84

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Gumain River Irrigation Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Administration

7.OBJECTIVES OF STUDY
Feasibility study for Gumain River Basin irrigation and drainage project

8.DATE OF S/W Feb.1983

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

10.STUDY TEAM

No.of Members 15
Period Jul.1983-Feb.1985(20 months)

Total M/M	Japan	Field
72.96	33.75	39.21

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic mapping

12.EXPENDITURE

Total	267,250 (¥'000)
Contracted	258,015

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Southwestern Pampanga river basin, Pampanga Province, Central Luzon

2.PROJECT COST
(US$1,000)
US$1=14P

	Total Cost	Local Cost	Foreign Cost
1)	197,714	80,928	116,786
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Irrigation area:		16,750 ha
2. Gumain dam:	(Type)	Rockfill
	(crest length)	43.5m
	(Height)	108.0m
3.Intake weir:	(proposed)	1
	(rehabilitation)	3
4.Head race:		13.6 km
5.Irrigation canal	(main)	28.8 km
	(Branch)	169.6 km

Imp. Period: Jan.1986-Dec.1992

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

Conditions:
Project benefits are estimated based on the difference in net agricultural product between with and without the project. Because a large part of the proposed area is not used for agricultural products, negative externalities of the dam construction (e.g. submerged area) are not considered.

Development impacts:
Increase in agricultural products, food supply, income level in the agricultural sector, and land productivity, etc.

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

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1991 Overseas Survey)
No financial arrangement is expected. After performing a re-study, the Government of the Philippines suspended the project implementation.

2.MAJOR REASONS FOR PRESENT STATUS
(FY 1992 Overseas Survey)
Damage caused by the eruption of Mt. Pinatubo.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 グマイン川灌漑開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P)

ASE PHL/S 107/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Metro Manila Transportation Planning

3.SECTOR
Transportation/Urban Transportation

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Ministry of Transportation and Communications

7.OBJECTIVES OF STUDY
Transportation rerouting plan
Transportation development policy

8.DATE OF S/W Jul.1982

9.CONSULTANT(S)
AIMEC Corporation

10.STUDY TEAM

No.of Members	15	
Period	Oct.1982-Mar.1984(31 months)	
	Jun.1984-Sep.1985	
Total M/M	Japan	Field
158.68	13.56	145.12

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
transport surveys and systems analysis

12.EXPENDITURE

Total	490,159 (¥'000)
Contracted	468,192

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Metro Manila

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	40,212		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

1) A detailed bus/jeepney rerouting plan for the area served by LRT Line 1, and related plans of detailed traffic management, road and public transport facilities
2) A bus/jeepney route management system and improved traffic management plans for bus/jeepney terminal areas in Metro Manila
3) Development plans for five mode interchange areas:
a) Divisoria (large-scale transport/commercial/cultural facilities complex for LRT, bus/jeepney); b) Recto (large-scale transport/commercial/cultural facilities complex for LRT Lines 1 and 2, bus/jeepney); c) Cubao (large-scale transport/commercial/business complex for LRT Line 2, bus/jeepney); d) C3/Quezon Avenue (medium-scale transport/commercial complex for bus/jeepney); e) Novaliches (small-scale transport/commercial facility development in suburbs for bus/jeepney/tricycle)
4) Transport database management methods and system

4.CONDITIONS AND DEVELOPMENT IMPACTS

(1) Rerouting
Conditions: Strengthening of bus/jeepney route management capabilities of related government agencies; Development of public transport facilities to lead bus/jeepney operators.
Effects: Rationalized public transport operation by functional split of the LRT/bus/jeepney; Effective utilization of available road space and faiclities
(2) Mode Interchange Area Development
Conditions: Government financial support or incentivesfor transport terminal development; Adjustment of land rights and acquisition in the builtup area
Effects: Effective land use in the mode interchange areas; Increased transport services by the improved traffic flow, convenience, safety, etc.
(3) Transport Database Management Method
Conditions: Commitment of relevant agencies; Periodic database updating system
Effects: Improved efficiency in planning and administration

5.TECHNICAL TRANSFER

1) OJT: A series of seminars on the use of PCs for transportation planning ; 2) Counterpart training (two); 3) Employment of local consultants (cost estimate and systems analysis); 4) Donation of PCs & softwares

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
1) The database prepared by the study has been intensively used by DOTC, DPWH and Transport Training Center. The database has not been adequately updated, although the manuals were prepared.
2) The public transport route management system based on PC has been officially introduced to DOTC's planning administration system. The system is being utilized but the inadequate database updating affects the quality of planning.
3) Rerouting plans were partly implemented during the study period. Rerouting of jeepneys along the LRT corridor was not wholly implemented due to political reasons. However, the proposed integration of bus/jeepney routes was implemented and the official updated route list was prepared.
4) Development plans for the mode interchange areas have not been properly followed up by the government. However, in response to recent rises in land price and improved opportunities for urban development, the plans are being reviewed to revive the possibility of implementing the recommendations.

(FY 1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

1) Jeepneys, unlike buses, are proven difficult for local authorities to manage, and the data collected during the study is now outdated. An attempt to strengthen route management was largely unsuccessful.
2) Mode interchange areas are already builtup areas with higher land price. The private sector is reluctant to develop unprofitable transport terminals and does not have the know-how to increase the value added of such development by integrating with commercial/business facilities development. The government lacks administrative and financial capability to encourage the private sector.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マニラ首都圏都市交通計画（フェーズIおよびII）

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/S 106/85

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Panay River Basin-Wide Flood Control

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Flood control

8.DATE OF S/W Dec.1982

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

10.STUDY TEAM

No.of Members 18
Period Feb.1983-Nov.1985(33 months)

Total M/M	Japan	Field
89.92	21.65	68.29

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	414,927 (¥'000)
Contracted	241,418

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Panay Basin, Copig Province, Panay Island

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	323,000	195,000	128,000
(US$1=234Yen)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

(1) Flood control project: a. Improvement and enlargement of bankful 150km of floodways and river structures; b. Constructions of polder dikes at 7 towns/villages; c. Construction of a multipurpose dam (Panay B dam); d. Establishment of appropriate guidelines for flood plain management in areas vulnerable to floods of about 340 sq.km. in total and and relocation of housing in these areas.
(2) Irrigation projects: a. Development of 3,250ha by irrigation in Panitan-Panay area; b. Rehabilitation of irrigation facilities and expansion of arable areas in Mambusao to 2,145ha.
(3) Water supply project: a. Supply of uncontaminated water from Panay river to Roxas City and increase the existing supply capacity by 7,450 cu.m.
(4) Hydropower generation project: a. Construction of the Panay B power station with an installed capacity of 7,100 kW and an annual energy output of 31.4 Gwh.

* Above project costs are in 1984 prices.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Flood control plan can, protect 340 sq.km in the basin which is equivalent of 1/4 of the area of potentially usable land, and 15% of the basin catchment area.
Not only by flood control but also by irrigation and municipal and Industrial water supply, integrated land use in the basin will be promoted in the future.
Although this project has a smaller economic impact than the present guideline of the Philippines(EIRR 15%), it is important to implement this project for rural economy as well as for flood control.

5.TECHNICAL TRANSFER

(1) OJT: A seminor was held after the draft final report was submitted.
(2) Trainee: Two trainees visited Japan.
(3) Working with counterparts was conducted.

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

The feasibility study of the priority projects selected by the Master Plan Study has been delayed because its priority in the central government is not very high. However, necessity of the flood control component in particular is recognized by local people and the projects are believed to enhance vital economic activities in the region. Further, imbalance of the development within Visayas increased due to the recent acceleration of investment in Cebu. Therefore, the priority projects in Panay Island are considered as one of the key components in the region-wide development plan.

(FY 1991 Overseas Survey)
The Terms of Reference for a JICA study was submitted to NEDA and JICA for possible technical assistance. The project was included in the Medium-term Public Investment Program (MIPIP) and the Medium-term Technical Assistance Program.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 パナイ河流域洪水防御基本計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 203A/85

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project on the Port of Batamgas

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Philippine Ports Authority

7.OBJECTIVES OF STUDY
Preparation for Master Plan (Target year 2000) and short-term development plan (Target year 1990)

8.DATE OF S/W Jun.1984

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 10

Period Sep.1984-Dec.1985(16 months)

Total M/M	Japan	Field
76.49	44.50	31.99

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Sounding survey, Shoreline survey, Geographical survey, Soil explorations

12.EXPENDITURE

Total	181,400 (¥'000)
Contracted	178,642

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
South-west of Luzon

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	13,632	5,684	7,948
(US$1=19P)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

(Master Plan)
Construction of 13 berths, in addition to the existing 4 berths.

Foreign trade: 2 berths(15,000DWT), 1 berth(30,000 DWT)
Domestic trade: for Ro-Ro: 4 berths(700 DWT)
for conventional domestic vessels: 6 berths
for ferry: existing 4 berths

Wharf	1,570 m
Dredging	1,414 thousand cu.m
Land reclamation	731 thousand cu.m
Road	142 thousand sq.m

4.CONDITIONS AND DEVELOPMENT IMPACTS

Conditions:
The amount of cargo in the year of 2000 is estimated to be 3,063,000 tons, comprising 10,970,000 tons for Ro-Ro and ferries, 5,780,000 ton for foreign trade, and 13,880,000 tons for domestic trade.

Impacts:
Batangas city is located approximately 100km south of Metro Manila. Economy of Batangas area including Batangas city is expected to grow accompany with the progress of Metro Manila.

5.TECHNICAL TRANSFER

Counterpart training (3 persons)
- Feasibility study method
- Field survey of ports similar to Batangas port

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Followed by F/S.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 バタンガス港整備計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 203B/85

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Development Project on the Port of Batamgas

3.SECTOR
Transportation/Port

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Philippine Port Authority

7.OBJECTIVES OF STUDY
Preparation of Master Plan (target year 2000) and short-term development plan (target year 1990)

8.DATE OF S/W Jun.1984

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja

10.STUDY TEAM

No.of Members 10
Period Sep.1984-Dec.1985(16 months)

Total M/M	Japan	Field
76.49	44.50	31.99

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Sounding survey, Shoreline survey, Geographical survey, Soil explorations

12.EXPENDITURE

Total	181,400 (¥'000)
Contracted	178,642

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
South-west Luzon

2.PROJECT COST
(US$1,000)
(US$1=19P)

	Total Cost	Local Cost	Foreign Cost
1)	13,631	5,684	7,947
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
11 berths in total are planned as follows:

Foreign Trade: 1 berth
Domestic Trade: for Ro-Ro 3 berths
for miscellaneous 3 berths
for ferry 4 berths

Wharf (-10m) 185 m
" (-5m) 105 m
" (-5m,Pier) 105 m
" (-4.5m) 155 m
Dredging 430,000 cu.m

Imp. Period: Jun.1986-Dec.1989

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	35.00	FIRR1)	0.50
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
The estimated amount of port handling vargo in 1990 is estimated to be 8,710,000 tons. The item of 1)~3) of Development Impact was caluculated as the benefit. All revenue and expenses are calculated at constant 1984 prices.

Development Impact:
1) The incremental valued added arising from cargo transportation.
2) The reduction of transportation costs between Batauqas and Calapan.
3) The saving of berth waiting costs.

5.TECHNICAL TRANSFER
Counterpart training(3 persons)
- Feasibility study method
- Field survey of ports similar to Batangas port

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)

Jan.1988 OECF E/S loan agreement (190 million yen)
1990 D/D completed
Jul.1991 OECF loan agreement (5,788 million yen)

OECF financing:
1) Construction of wharves (22 berths)
2) Construction of breakwaters
3) Dredging and reclamation

(FY1991 Overseas Survey)
1992-1995 Construction scheduled

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 バタンガス港整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 318/85

Compiled Mar.1988
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Philippine Road Disaster Prevention Project, Stage II

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Public Works and Highways

7.OBJECTIVES OF STUDY
Formulation of disaster prevention measures for 3 selected sections of national highways

8.DATE OF S/W Aug.1984

9.CONSULTANT(S)
Nippon Engineering Consultants Co., Ltd.
Katahira & Engineers International

10.STUDY TEAM

No.of Members 7
Period Sep.1984-Jul.1985(9 months)

Total M/M	Japan	Field
	2.46	29.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geological and topographic surveys

12.EXPENDITURE

Total	99,822 (¥'000)
Contracted	93,173

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1)Lucena - Calawag (N.Luzon) 2)Allen - Calbayog (Samar) 3)Bauang - Baguio (N.Luzon)

2.PROJECT COST
(US$1,000)
(US$1=236.4Yen)

	Total Cost	Local Cost	Foreign Cost
1)	3,725	1,438	2,287
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Protection of shoulder slope:

Lucena - Calawaq	95.7 km
Allen - Calbayoq	72.9 km
Naqilian Road	47.2 km
Total	215.8 km

Earth Work
Drainage work: surface drain, subsurface drain
Slope protection work: concrete spraying etc.
Structural Work: anchoring etc.
Catch Work: anchor wire net etc.

Note) Large scale riparian and Sabo works were excluded.

Imp. Period: Jan.1990-Aug.1991

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	16.00	FIRR1)
EIRR2)	14.40	FIRR2)
EIRR3)	15.40	FIRR3)

Conditions and Development Impacts:

Conditions:
(1)Traffic projections for 1990, 2000 and 2010 are estimated.
(2)Road closure by disasters are 8 days/year for Lucena - Calawaq, 9 days for Allen - Calbayoq and 4 days for Naqilian Road.

Development impacts:
(1)Better access to isolated areas.
(2)Recovery of road reliability.
(3)Stimulation of private investments
(4)Saving of rehabilitation costs

Note) The above EIRRs indicate 1)Lucena-Calawaq, 2)Allen-Caibayoq, 3)Nagilian Road.

5.TECHNICAL TRANSFER
OJT and JICA training program for counterparts

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

After the construction of the Pan-Philippine Highway started in 1969, the pavement has deteriorated and numerous bridges also have shown signs of wear and tear. Disaster spots are found especially along mountainous sections of the Highway. The progress of the construction to rectify the deficiencies is as follows.

1. Lucena - Calauag Section
May 1988 OECF loan (Ph-P93) L/A signed (special Rehabilitation 14,003 million yen)
Project: Rehabilitation of Laoag-Allacapan, Allacapan - Aritao - Sta. Rita, and Calamba - Calauag Sections.
Mar.1990 - Jan 1991
Detailed design(Pavement, Bridges, drainage & disaster prevention)on the Lucena - Calauag Section(96km) completed (Toko Consultants)
Total investment 461.7 million pesos (OECF379.2 million, GOP82.5 million)
Jun.1991 Construction commenced (scheduled to be completed in Jun.1996)
2. Allen - Calbayog Section(73km) and Naguilian Road(47km)
Feb.1990 OECF loan (Ph-P105) L/A signed (Disaster Prevention and Rehabilitation 5,708 million yen)

2.MAJOR REASONS FOR PRESENT STATUS
- large impact
- high priority

3.PRINCIPAL SOURCE OF INFORMATION
①③④

和名 道路防災計画ステージII

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/S 317/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
San Roque Multi-Purpose Project (Re-Study)

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Power Corporation (NPC)

7.OBJECTIVES OF STUDY
- Review of hydrological study
- Evaluation on quality of irrigation water

8.DATE OF S/W Oct.1983

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

10.STUDY TEAM

No.of Members 17
Period Nov.1983-Mar.1985(17 months)

Total M/M	Japan	Field
38.35	12.69	25.66

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	117,374 (¥'000)
Contracted	102,244

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Upstream reach of Agno River, middle Luzon island

2.PROJECT COST

(US$1,000) (US$1=9.00P)	Total Cost	Local Cost	Foreign Cost
1)	1,200,000		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

structure	Scale
Main Dam (filldam)	Gross storage 990 million cu.m Effective storage 670 million cu.m
Installed Capacity	390MW

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:
1. JICA preliminary study team pointed out to carry out additional investigations for the review of hydrological analysis and the evaluation of water quality.
2. Although there was a slight difference between the estimated low flow and those of F/S (by Italian Consultant), the scale of reservoir was proposed as the same of the F/S.
3. On the basis of the forecasted water quality in the reservoir, the increasing ratio of copper concentration in the soil of paddy field and the damage of crop were studied. The data shows that the damage will be tangible after 150 years.

5.TECHNICAL TRANSFER
1. Training in Japan (JICA trainee): 2 persons (first year) and 1 person (second year)
2. Supply of equipment and the instruction on operation.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
Suspended after F/S.

Note: A hydroelectric power project is required in view of the large load demand in Luzon Island. The existing nuclear power station is not operated, and this raises the need for hydroelectric power generation.
Although the proposed project is not included in the NPC list, the project is likely to be adopted if NPC decides to implement new projects.

2.MAJOR REASONS FOR PRESENT STATUS
(1) Domestic condition: change of political power, deficit of domestic fund.

(2) Others: Construction cost was estimated at over US$ 1.2 billion so that it was difficult to secure finance.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 サンロケ多目的ダム開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 311/85

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Asue River Basin Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Authority

7.OBJECTIVES OF STUDY
Integrated rural development in Asue and adjoining basin

8.DATE OF S/W Jan.1983

9.CONSULTANT(S)
Chuo Kaihatsu International Corp.
Sanyu Consultants Inc.
Tamano Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period May.1984-Aug.1985(16 months)

Total M/M	Japan	Field
70.43	31.26	39.17

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	225,492 (¥'000)
Contracted	210,094

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Asue river and adjacent basin (irrigated area: 6,760ha)

2.PROJECT COST
(US$1,000)
US$1=240Yen in Oct.1984

	Total Cost	Local Cost	Foreign Cost
1)	38,470	16,927	21,543
2)	72,813	40,408	32,405
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Outside benefit area:
Dam and appurtenant facilities, basin alteration channel, hydropower plant, transmission facilities, water service facilities
Inside Benefit area:
Asue weir, Bakabak weir, Gubaton weir, main irrigation canal and appurtenant facilities, Asue river improvement works, drainage canal, roads and appurtenant facilities, terminal facilities, rural community center.

The Cost 1) above is based on the effective exchange rate as of Oct. 1984, and the Cost 2) includes price changes.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	13.20	FIRR1)	9.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Project impacts on national socio-economy:
1.Contribution to food self sufficiency
2.Contribution to national economy
3.Contribution to reduction of oil imports
4.Saving of foreign currency
5.Improvement of living standards and nutrition

Project impacts on Project areas:
1.Stabilization of livelihood and increased income
2.Improvement of health, sanitation and living environment
3.Increase of employment opportunities
4.Strengthening of road network
5.Household electrification
6.Improvement of quality and marketability of farm products
7.Stabilization of domestic water supply
8.Community activities through community center 9.Improvement of farmer incentive to participate in project through irrigation facility O/M groups

5.TECHNICAL TRANSFER
Training in Japan

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1991 Overseas Survey)
The Government of the Philippines has no plan to obtain finance for the project.

2.MAJOR REASONS FOR PRESENT STATUS
(FY 1992 Overseas Survey)
Economic and political circumstances.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 アスエ川流域農業開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 312/85

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Bohol Irrigation Development Project (Phase II)

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Irrigation Authority

7.OBJECTIVES OF STUDY
Agricultural development plan with irrigation facilities

8.DATE OF S/W Feb.1984

9.CONSULTANT(S)
Sanyu Consultants Inc.
Nihon Suido Consultants Co., Ltd.
Naigai Engineering Co., Ltd.
Aero Asahi Cor.

10.STUDY TEAM

No.of Members 12
Period Dec.1984-Feb.1985 (20 months)

Total M/M	Japan	Field
51.13	19.10	32.03

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	197,006 (¥'000)
Contracted	189,602

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Wariq River Basin of Bohol Islands
Irrigation area 5,300ha, Drainage area 12,700ha

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	36,556	14,333	22,222
US$1=18P	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1) Water Resources Development of Wariq River and other rivers in the area.
2) Arrangement of irrigation, drainage, farm roads and other on-farm facilities.

Concretely,
- Water resources development by Boyongan reservoir and Capayas reservoir
- Irrigated areas of 5,300 ha and 3,540 ha in rainy season and dry season, respectively
- Drinking water supply

Imp. Period: Jan.1987~Dec.1991

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	15.40	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
1) Improvement of Living Standard of Regional Farmers.
2) Supply of Drinking Water (3.9 l/s or 366 m3/day).
3) Production Increase of Rice, Beans, Groundnuts, Maize, Fruit to 29,900 ton, 420 ton, 710 ton, 1,130 ton, and 3,740 ton, respectively.

5.TECHNICAL TRANSFER
To the counterpart in the process of implementation.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The implementation of the proposed project was delayed. Part of the project area (Capayas 750ha) is being developed by the Japanese grant.

Jul.1990 E/N signed (1,433 milion yen) for the construction of a diversion weir, irrigation and drainage canals and on-farm facilities.
Aug.1991 E/N signed (234 million yen)

(FY1991 Overseas Survey)
The project scale was reduced for implementation. The delayed construction of Bohol (I) is affecting the implementation of this Bohol (II) which will utilize the excess water from Bohol (I).

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ボホール灌漑開発計画 フェーズII

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 204A/86

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Municipal Water Supply Project

3.SECTOR
Public Utilities/Water Supply

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Local Water Utilities Administration (LWUA)

7.OBJECTIVES OF STUDY
Formulation of a master plan for water supply in seven local cities and towns

8.DATE OF S/W Oct.1985

9.CONSULTANT(S)
Nippon Jogesuido Sekkei Co., Ltd.

10.STUDY TEAM

No.of Members 10

Period Feb.1986-Mar.1987(0 months)

Total M/M	Japan	Field
40.97	19.93	22.04

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Water quality analysis

12.EXPENDITURE

Total	163,499 (¥'000)
Contracted	149,175

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Two cities (Angeles and Daqpan) and two groups of towns (Cabyao, Santa Rosa and Biniyan; Bayombong and Sorano)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	43,678	18,573	25,105
(US$1=20.50P)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

(1) Angeles City: Construction of 13 tube wells, 3 distribution reservoir and booster pumping station
(2) Daqupan City: Construction of 19 tube wells, chlorinator treatment facilities and transmission pipeline
(3) Cabuyao-Sta. Rosa-Binan: Construction of new distribution reservoir, distribution pipeline and booster pumping station
(4) Bayombong-Solano: Construction of radial well facilities, chlorinator treatment facilities and transmission and distribution pipeline

4.CONDITIONS AND DEVELOPMENT IMPACTS

Conditions:
EIRR: End of construction 1995; project life of 20 years; own fund 5%, government subsidy 5%, government loan 10 - 12%, and annual reserve of 5 - 10%; basic charge equivalent to 5% of the income of low-income families; rate increase less than 60% of the old rate.
FIRR: Increase of land price, improvement of health and economic value of water are taken into account. The shadow pricing factor is 1.3 for foreign exchange, 0.5 for the premium of unskilled labor, and 1.0 for other components.

Impacts:
1) Improvement of living environment
2) Economic impacts are as follows.
- Decrease of water-borne diseases
- Reduction of medical expenses
- Increase of working hours
- Increase of land prices
- Reduction of fire damages

5.TECHNICAL TRANSFER
(1) On-the-job training on development planning for urban water supply system.
(2) On-the-job training on tube well construction.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Followed by F/S.

2.MAJOR REASONS FOR PRESENT STATUS
- This water supply projects are expected highly social economic benefit for the project area.
- LWUA, executing agency, is nation-wide agency and control almost water supply projects in the Philippines, so LWUA can influence government policy.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 地方都市上水道整備計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 204B/86

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Municipal Water Supply Project

3.SECTOR
Public Utilities/Water Supply

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Local Water Utilities Administration (LWUA)

7.OBJECTIVES OF STUDY

8.DATE OF S/W Oct.1985

9.CONSULTANT(S)
Nippon Jogesuido Sekkei Co., Ltd.

10.STUDY TEAM

No.of Members 10
Period Feb.1986-Mar.1987(14 months)

Total M/M	Japan	Field
40.97	19.93	22.04

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	163,499 (¥'000)
Contracted	149,175

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Two cities (Angeles and Dagpan) and two groups of towns (Cabyao, Santa Rosa and Biniyan; Bayombong and Sorano)

2.PROJECT COST
(US$1,000)
(US$1=20.50P)

	Total Cost	Local Cost	Foreign Cost
1)	43,678	18,573	25,105
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Phase I(1986-95)	Phase II(1996-2010)
(1)Source Facility	test well	11 of deep wells
(2)Transmission Facility	Construction of Transmission facility (3,500m)	Additional Transmission line (1,300m)
(3)Treatment Facility	Chlorination Facilities	Chlorination facilities
(4)Distribution Facility	Construction of Reservoir(2400sq.m)	Extension of Resevoir to 7000sq.m

Imp. Period: .1988-.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	13.70	FIRR1)	17.60
EIRR2)	13.10	FIRR2)	6.00
EIRR3)	13.40	FIRR3)	12.30

Conditions and Development Impacts:

Conditions:
EIRR: End of construction 1995; project life of 20 years; own fund 5%, government subsidy 5%, government loan 10 - 12%, and annual reserve of 5 - 10%,etc.
FIRR: Increase of land price, improvement of health and economic value of water are taken into account. The shadow pricing factor is 1.3 for foreign exchange, 0.5 for the premium of unskilled labor, and 1.0 for other components.
Note: EIRRs and FIRRs above are for 1)Angeles, 2)Dagpan, 3)Cabyao-Santa Rosa - Biniyan. EIRR and FIRR for Bayombong - Sorano are 13.5% and 4.3%.

Impacts: As the direct benefit , the following impacts are expected:
- Increase in the area and population to be served.
- Continuous supply of safe water

5.TECHNICAL TRANSFER
- On-the-job training on development planning and tube well construction
- JICA training program for counterparts

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
D/D was completed for Dagpan, and Bayombong - Sorano. The project is under implementation with OECF financing.

Jan.1988 OECF loan agreement (1,272 million yen)
Nov.1994 Construction to be completed

With regard to Angeles, D/D is underway with the 17th OECF finance.

May 1992 OECF loan agreement (1,094 million yen)
1992 Construction started
Mar.1996 Construction to be completed

2.MAJOR REASONS FOR PRESENT STATUS
- Development of water supply systems has high priority among BHN-related projects.
- Effectiveness of LWUA

3.PRINCIPAL SOURCE OF INFORMATION
①④

和名 地方都市上水道整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P)

ASE PHL/S 108/87

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Cagayan River Basin Water Resources Development

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Department of Public Works and Highways

7.OBJECTIVES OF STUDY
Master Plan of Water Resources

8.DATE OF S/W Aug.1985

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

10.STUDY TEAM

No.of Members 15
Period Oct.1985-Aug.1987(23 months)

Total M/M	Japan	Field
140.97	72.29	68.68

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	446,671 (¥'000)
Contracted	344,969

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Cagayan River Basin in Luzon Island, 27,300 sq.km

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	1,608,927		
(US$1=20.5p)	2)			

3.CONTENTS OF MAJOR PROJECT(S)

(1) Sipfu Multi Dam Project, Dam Height 58 m
(2) Matuno Multi Dam Project, Dam Height 147 m
(3) Maliq Dam Project, Dam Height 84 m
(4) Tuqueqarao River Training Project 22.1 km
(5) Maqapit Dredqinq Project
(6) Pinacanauan Irrigation Rehabilitation Project 1,220 ha

4.CONDITIONS AND DEVELOPMENT IMPACTS
This project qenerally has tremendous effects on irriqation, flood control and hydropower development and additionally, it has an advantaqe on social security problem because an opportunity of labour will be expected to increase in local area.

5.TECHNICAL TRANSFER
(1) 4 special OJT
(2) 2 OJT in Japan
(3) To finalize report with counterpart

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
A feasibility study had been planned by the DPWH immediately after the completionof this master plan study.
However, the F/S was delayed due to the revolution in February 1987. The Government of the Philippines is requesting a feasibility study by JICA.

(FY 1991 Overseas Survey)
Preparations for feasiblity studies are being undertaken.

2.MAJOR REASONS FOR PRESENT STATUS
Worsening security problems.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 カガヤン河流域水資源開発基本計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/A 102/87

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Improvement Project of the O & M of Magat River Integrated Irrigation

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
National Irrigation Administration

7.OBJECTIVES OF STUDY
Improvement in the central-method of water by repairing existing irrigation facilities

8.DATE OF S/W Nov.1985

9.CONSULTANT(S)
Sanyu Consultants Inc.
Naigai Engineering Co., Ltd.
Nihon Suiko Consultant Co., Ltd.

10.STUDY TEAM

No.of Members 18
Period Feb.1986-Mar.1987(14 months)

Total M/M	Japan	Field
130.35	54.07	70.78

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	361,520 (¥'000)
Contracted	330,294

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Region II (Isabela, Quirino, Ifugao) 102,000 ha

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	51,707	17,317	34,390
US$1=20.5 Pesos	2)			

3.CONTENTS OF MAJOR PROJECT(S)

The Study proposed various improvements to realize more effective utilization of water resources, efficient and equal distribution of irrigation water, and better organizations for maintenance and operation (e.g. preparation of an O&M manual).

	Costs ('000 pesos)
- Improvement of water control	: 143,330
- Improvement of machinery and facilities	: 36,610
- Procurement of construction machinery	: 134,550
- Improvement of canals	: 349,820
- Rehabilitation major structures	: 63,196
- Improvement of agricultural dev. facilities	: 47,700
- Engineering services	: 156,050
- Contingency	: 123,750
Total	1,060,000

* Project costs above are in 1986 prices.

4.CONDITIONS AND DEVELOPMENT IMPACTS

The proposed project will strengthen O & M activities of Magat Dam and irrigation facilities, which were constructed by NIA with funds from ADB and IBRD.

Development impacts:
1) The irrigated area will reach 97,400ha
2) The average paddy yield will rise to 4.1 tons/ha, with the total production reaching 760,000 tons.
3) The quality of rice will improve.
4) The paddy production cost will drop by 640 pesos/ha, which will raise the net profit.
5) Estimated FIRR 10%, and estimated EIRR 14%

5.TECHNICAL TRANSFER
1) OJT
2) Acceptance of Trainee (Maintenance & Operation Soft Ware)

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
NIA wanted to implement this project as a model for many other ineffective irrigation systems which suffer from inadequate management and lack of proper maintenance in the Philippines, and requested unsuccessfuly for a Japanese grant to implement part of the proposals.

(FY 1991 Overseas Survey)
The project will be revived in the near future.

2.MAJOR REASONS FOR PRESENT STATUS
Implementation of the project is being postponed due to the increase of local crime rate.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マガットかんがいシステム維持管理強化計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (F/S)

ASE PHL/S 319/87

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Road Improvement Project on the Pan-Philippine Highway (Philippines-Japan Friendship Highway)

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Road Rehabilitation

8.DATE OF S/W Nov.1985

9.CONSULTANT(S)
Nippon Engineering Consultants Co., Ltd.
Katahira & Engineers International

10.STUDY TEAM

No.of Members 7
Period Jun.1986-Sep.1987(16 months)

Total M/M	Japan	Field
48.13	2.10	46.03

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic Survey and Geotechnical Investigation

12.EXPENDITURE

Total	168,225 (¥'000)
Contracted	161,111

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
North Study Section 200km (Sta. Rita-Aritao)
South Study Section 181km (calamba-Calauag)

2.PROJECT COST

(US$1,000) (US$1=160Yen)	Total Cost	Local Cost	Foreign Cost
1)	55,000	23,000	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

(1)Rehabilitation of Road Function (Short term 1987-92)

Road Function	North Study Section	South Study Section	Total
Signalisation	6	-	6
Improvement of Geometrics	1	2	3
Paving of Shoulders/Sidewalks	6	7	13
Widening to a 4-lane	-	-	1
R.O.W Acquisition	3	-	3
	16	10	26

(2)Pavement Rehabilitation Works (Short term)

2-lane PCC Reconstruction	91.92	110.68	202.60
1-lane PCC Reconstruction	113.96	21.12	135.08
2 lane AC Overlay	69.00	5.00	74.00
Treatment of weak Subgrade	2.00	-	2.00
Side Ditch	109.73	74.52	184.14
Subsurface Drainage	3.25	11.25	14.25
	114.98	85.77	200.75

Imp. Period: Apr.1989-Dec.1992

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	57.20	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

Conditions:
(1) Future traffic demand is estimated for the years of 2000 and 2010.
(2) For improvement of traffic function, widening of road width, construction of By-pass, etc were suggested.
(3) Rehabilitation of pavement for each section was also suggested.

Development Impacts:
The improvement of road function in the cities are expected.

5.TECHNICAL TRANSFER
(1) Technical Transfer through Seminar
(2) OJT on highway planning and pavement

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1992 Overseas Survey)

After the construction of the Pan-Philippine Highway started in 1969, the pavement has deteriorated and numerous bridges also have shown signs of wear and tear. Desaster spots are found especially along mountainous sections of the Highway. The progress of the construction to rectify the deficiencies is as follows.

1. Santa Rita - Aritao Section
May 1988 OECF loan (Ph-P93) L/A signed (special Rehabilitation 14,003 million yen)
Project: Rehabilitation of Laoag - Allacapan, Allacapan - Aritao - Sta. Rita, and Calamba - Calauag Sections.
Feb.1990 - May 1991
Detailed design(Pavement, Bridges, drainage & disaster prevention)on the Aritao - Santa Rita Section(200km) completed (Katahira & Engineers)
Total investment 1,017.3 million pesos (OECF835.5 million, GOP181.8 million)
Jun.1991 Construction commenced (scheduled to be completed in Jan.1996)

2.Calamba - Calauag Section

2.MAJOR REASONS FOR PRESENT STATUS
- High priority has been given to this project as the road is one of important trunk roads in Philippines.
- The project was evaluated to be the most suitable one as Social Rehabilitation Fund by OECF

3.PRINCIPAL SOURCE OF INFORMATION
①③④

和名 日比友好道路・道路改善計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1993

ASE PHL/S 320/87

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Manila South Port Rehabilitation Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Philippine Port Authority

7.OBJECTIVES OF STUDY
Review of Master Plan (year 2000) and establishing Short Term Development Plan for South Harbour.

8.DATE OF S/W Dec.1985

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja
Nikken Sekkei Ltd.

10.STUDY TEAM

No.of Members 11
Period Mar.1986-Jun.1987(16 months)

Total M/M	Japan	Field
65.06	30.22	34.84

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Traffic Survey, Soil Survey, Topographic Survey, Structure Inspection

12.EXPENDITURE

Total	228,100 (¥'000)
Contracted	214,956

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Manila

2.PROJECT COST
(US$1,000)
(US$1=20.5P)

	Total Cost	Local Cost	Foreign Cost
1)	35,366	10,315	25,051
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The Port of Manila consists of South Port, North Port and the International Container Terminal. Most of the facilities of South Port were constructed immediately after the 2nd World War, and are now largely obsolete. In addition, spaces and facilities for cargo handling and storage are insufficient. The study proposed the following rehabilitation and expansion of the port facilities.

1) Pier 3 : Floor boards, protecting boards, land levelling
2) Pier 5 : Protecting boards, land levelling, removal of storage sheds
3) Pier 9 : Protecting boards, land levelling, extension
4) Pier 13 : Floor and protecting boards
5) Pier 15 : Floor and protecting boards, land levelling, removal of sheds
6) Open Storage Area: paving and clearing
7) Dredging : 1.02 million cu.m
8) Grain Terminal : 2 floating unloaders

Imp. Period: .1989-.1992

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	18.46	FIRR1)	7.69
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Demand projections are made for the years 1995 and 2005.

The implementation of the project will rehabilitate and expand the superannuated facilities of South Port and thereby improve the efficiency of the port operation and maintenance, reduce cargo handling costs and port charges and waiting time of the calling ships. The social internal rate of return is calculated 18.61%.

5.TECHNICAL TRANSFER
1) A seminar held in Manila; 2) A lecture on F/S methodology; 3) OJT through joint work

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

Feb. 1988 Government of Philippines applied for an ADB loan
1988 - 1989 Detailed design done by a US consultant
Dec.1989 ADB L/A (US$43.5 million) for 2nd Manila Port Project (South and North Harbors)
Sep.1991 - 1st half of 1994 Construction scheduled

Total Project Cost 442.1 million pesos
Foreign (60%) US$1.3 million
Local (40%) 26.8 million pesos

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マニラ南港改修計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P)

ASE PHL/A 103/88

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Integrated Agricultural/Rural Development Project in Western Samar

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Provincial Government of Samar

7.OBJECTIVES OF STUDY
M/P for the integrated agricultural development in order to vitalize economy in the Province of Samar

8.DATE OF S/W Dec.1986

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

10.STUDY TEAM

No.of Members 13
Period Mar.1987-Dec.1988(15 months)

Total M/M	Japan	Field
95.86	40.17	55.69

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Discharge Observation

12.EXPENDITURE

Total	320,574 (¥'000)
Contracted	268,403

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Western Samar Province in Samar Island (excluding small islands)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	422,500		
US$1=20 Pesos	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Agricultural Development Promotion Project (ADPP) was proposed for 4 priority areas, i.e., San Jorge/Gandara, Jamonini, Calbiga and Basey. The components are as follows:

(1) Agricultural development
(2) Rural infrastructure development
(3) Post-harvest and marketing facility development
(4) Farmers Organization
(5) ADPP Office Estimated investment costs are as follows:

First 5 years of the first decade	114,600 (US$1,000)
Second 5 years of the first decade	91,450
Second decade	216,450

(The cost above is the total for 20 years)

4.CONDITIONS AND DEVELOPMENT IMPACTS

In Western Samar Province, the plans are for;
1) irrigation
2) drainage
3) agricultural development
4) farm road
5) rural electrification
6) rural water supply
7) social infrastructure
8) farm organization

The objectives are;
1) increase in farmers' income, and
2) promotion of employment opportunity.

Short-term, Medium-term, and Long-term strategies were proposed.

5.TECHNICAL TRANSFER

1) Acceptance of trainees
2) Direction of measuring equipment (flow meter, etc.)
3) Co-working during report preperation

III. PRESENT STATUS OF STUDY RESULTS

1.PRESENT STATUS

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

(Description)

Regarding the Agricultural Development Promotion Project (ADPP) formulated for the top priority area (San Jorge / Ganadara), the FY1989 Japanese grant was approved.

Jan.- Mar. 1990	Basic design study undertaken
Jul.1990	E/N signed (Phase I: 712 million yen)
Aug.1991	E/N signed (Phase II: 12 million yen)
Mar.1993	The completed project formally transferred to the Samar Provincial Government

2.MAJOR REASONS FOR PRESENT STATUS

Samar Island is poorest region in the Philippines. The World Bank studied the whole island. Australia and the World Bank studied the Northern Samar and Eastern Samar but not Western Samar. Therefore, integrated rural development in Western Samar is very important.

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 西サマール農業総合開発計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (F/S)

ASE PHL/S 321/88

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Rural Road Network Development Project

3.SECTOR
Transportation/Road

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
Development of regional roads (secondary trunk road and lower road classes)

8.DATE OF S/W Jul.1987

9.CONSULTANT(S)
Katahira & Engineers International
Nippon Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 10
Period Nov.1987-Feb.1989(16 months)

Total M/M	Japan	Field
55.90	13.40	42.50

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Road inventory
Traffic survey

12.EXPENDITURE

Total	191,294 (¥'000)
Contracted	178,598

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
73 provinces (F/S on four selected provinces: Cavite, Masbate, Bohol and Aqusan del Norte)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	45,000	17,000	28,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The road improvement with IRR more than 15 % was proposed to implement Phase I and between 7.5 to 15% for Phase II.

-Road Length Proposed for Improvement (km)-

	Cavite	Masbate	Bohol	Aqusan del Norte	Total
[Phase I]					
Major Roads	148.9	134.5	14.7	52.6	350.7
Minor Roads	157.5	73.5	107.3	12.2	350.5
Total	306.4	208.0	122.0	64.8	701.2
[Phase II]					
Major Roads	-	152.8	46.5	49.3	248.6
Minor Roads	113.6	28.2	83.4	48.0	273.2
Total	113.6	181.0	129.9	97.3	521.8
[Total(Phase I+II)]					
Major Roads	148.9	287.6	61.2	101.9	599.3
Minor Roads	271.1	101.7	190.7	60.2	623.7
Total	420.0	389.0	251.9	162.1	1,223.0

Imp. Period: .1991-.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:		
Yes	EIRR1)	FIRR1)
	EIRR2)	FIRR2)
	EIRR3)	FIRR3)

Conditions and Development Impacts:

Conditions:
The project life is 25 years (from 1992 to 2016). The benefits taken into account were: Saving of transportation cost, benefit from the agricultural development, road maintenance cost savings.

Impacts:
The regional road development (roads with EIRR of over 15 %) will extend the network of all-weather roads in the country and stimulate socio-economic growth and employment creation.

5.TECHNICAL TRANSFER
OJT for the counterparts

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

The Government of the Philippines requested JICA to undertake a similar study on the other provinces. The requested study on eleven provinces(Rural Road Network Development Project II) was implemented during Oct. 1989 - Oct.1990.

Based on the findings of the two RRNDP studies and another (SAPROF), GOP requested OECF finance for rural roads improvement in 20 provinces(6 provinces from the two JICA studies and 13 provinces from the SAPROF). Yen credit was subsequently approved for four provinces(Agusan del Norte was replaced by Tarlac).

Jul.1991 OECF loan(PH-P118) signed(Rural Road Network Developent 5,266 million yen)
Project: Rural roads in Cavite, Masbate, Bohol and Tarlac Provinces.
Jul.1992 - May 1993
Detailed design to be completed(Katahira & Engineers)
Sep.1993 Construction is scheduled to begin(to be completed in 1996).
Total Investment 1,009.6 million pesos(OECF848.2 million, GOP161.4 million)

Tarlac Province was affected by the eruption of Mt. Pinatubo, and three of the four subprojects in the province were damaged. However, the proposed improvement can be implemented.

2.MAJOR REASONS FOR PRESENT STATUS

The extent of primary road network might be considered adequate especially in built up areas and major municipalities. Rural roads improvement is given high priority in line with the government policy of promoting equity in economic development and social welfare.

3.PRINCIPAL SOURCE OF INFORMATION
①③④

和名 地方道路網整備計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 313/88

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Highland Intergrated Rural Development Project in La Trinidad, Province of Benguet

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Provincial Government of Benguet (PGB)

7.OBJECTIVES OF STUDY
Formulating the Highland Integrated Rural Development Plan in La Trinidad for promoting highland agriculture and improving the living standards for the inhabitants in rural areas.

8.DATE OF S/W Mar.1987

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

10.STUDY TEAM

No.of Members 10
Period Jul.1987-Nov.1988 (14 months)

Total M/M	Japan	Field
57.49	23.87	33.62

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
- Rural Road Surveying and Irrigation Canal Surveying.
- Drilling of Test Wells

12.EXPENDITURE

Total	196,644 (¥'000)
Contracted	170,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Project Area - 1,420 hectares in La Trinidad, Province of Benguet

2.PROJECT COST
(US$1,000)
US$1=24.2P in 1988

	Total Cost	Local Cost	Foreign Cost
1)	12,460	5,220	7,240
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Intake Facilities	8
Pond	11 (68,500 cu.m)
Lateral Conduit	25 km
Delivery Conduit	30 km
Diversion Box	120
Deep Well	3
Rural Road	30 km
Community Center	7

Imp. Period: Dec.1988-Mar.1992

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	10.20	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

Conditions:
Proposed component, which is required for the promotion of agricultural productivity and social environment in rural area, is selected to overcome major existing restrictions on the development in the study area

Development Impact:
1) Increase of supply in quantity of vegetables and cut-flowers in Metro-Manila and the Central Regions
2) Increase of employment and training effect
3) Increase of farm household income and property value
4) Stable supply of potable and household water
5) Activation of rural area

5.TECHNICAL TRANSFER
1.Acceptance of Trainee (10 persons)

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The proposed project was implemented with the Japanese grant aid.

Dec.1988 - Apr.1989	Basic design undertaken
Jun.1989	E/N signed (1,643 million yen) for Phase I
Jun. - Oct.1989	Phase I detailed design undertaken
Nov.1989 - Nov.1990	Phase I construction undertaken
Jul.1990	E/N signed (1,142 million yen) for Phase II
Jul. - Oct.1990	Phase II detailed design undertaken
Nov.1990 - Nov.1991	Phase II construction undertaken

The facilities have been formally handed over to the provincial government of Benguet. The impact of the project is substantial, enabling the paddy planting during the dry season in 1992.

(FY1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
1.Implementation of this development project is considered vital and urgent in view of high potentiality. 2.This project has an important and regional role to supply the highland vegetables to Metro-Manila and the central regions. 3.High priority was given to the implementation of this project for the reason that this is the first project carried out by the provincial government with technical cooperation by the Government of Japan.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 トリニダッド高地農村総合開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (F/S)

ASE PHL/A 314/88

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Improvement of Operation and Maintenance in Pumping Irrigation Systems

3.SECTOR
Agriculture/Irrigation, Drainage & Reclamation

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
NIA (National Irrigation Administration)

7.OBJECTIVES OF STUDY
To formulate of operation and maintenance for government managed irrigation pumping system

8.DATE OF S/W Feb.1987

9.CONSULTANT(S)
Nihon Koei Co., Ltd.
Construction Project Consultants

10.STUDY TEAM

No.of Members 9
Period Aug.1987-Dec.1988(7 months)

Total M/M	Japan	Field
69.17	24.24	44.93

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	199,448 (¥'000)
Contracted	197,131

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Existing National Pump Irrigation Systems
(Excluding groundwater irrigation systems)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
US$1=21 Peso	1)	16,715	5,516	11,199
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
The project consists of the rehabilitation and improvement of the following pump irrigation systems:

1) Bonga #1	(1,204.2)	(US$000)
2) Bonga #2	(1,470.2)	
3) Bonga #3	(684.5)	
4) Alcala - Amulung	(1,433.3)	
5) Solana	(3,648.9)	
6) Libman - Cabusao	(3,028.4)	
7) ini-hydropower stations	(5,246.0)	

Imp. Period: .1990~.1992

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	19.40	FIRR1)	
EIRR2)	22.40	FIRR2)	
EIRR3)	15.60	FIRR3)	

Conditions and Development Impacts:

Conditions:
Benefits of irrigation are the difference in terms of primary profits from crop production between "with project" and "without project" conditions. Benefits of mini-hydropower stations are calculated on the basis of the operational costs of diesel power generation.

Development Impacts:
1. Increase of crop production
2. Supply of electricity at lower costs
3. Increase of employmnt
4. Improvement of farm roads and reduction of transportation costs

* EIRRs 1) to 3) above correspond to the numbers of the projects shown above. EIRRs for the projects 4) to 7) are 33.7%, 27.4%, 39.5%, and 14.0% respectively.

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

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

The project was not favorably considered during the annnual bilateral consultation between Japan and the Philippines owing to the peace and order problems in the project area.

2.MAJOR REASONS FOR PRESENT STATUS
Peace and order problems in the project areas.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ポンプ灌漑施設維持管理改善計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (Basic Study)

ASE PHL/S 502/88

Compiled Mar.1991
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Establishment of Graphic Information Base Project of National Capital Region

3.SECTOR
Social Infrastructures/Survey & Mapping

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
National Mapping and Resource Information Authority (Manila)

7.OBJECTIVES OF STUDY
Preparation of base maps for urban development planning

8.DATE OF S/W .1985

9.CONSULTANT(S)
International Engineering Consultants Association

10.STUDY TEAM

No.of Members 62
Period Jun.1985-Mar.1989(46 months)

Total M/M	Japan	Field
200.67	81.48	119.19

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	761,568 (¥'000)
Contracted	751,731

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Approx. 1,500 sq.km of Metro Manila Region

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

Preparation of :
1.Contoured(Topographic) Mapping (scale 1:10,000) 1500sq.km
2.Planimetric Mapping (scale 1:10,000) 1500sq.km
3.Land Use Mapping (scale 1:10,000) 823sq.km
4.Land Condition Mapping (scale 1:10,000) 476sq.km

4.CONDITIONS AND DEVELOPMENT IMPACTS
By the preparation of the urban base maps, the formulation of urban re-development plans, land use plans, flood control measures, etc. are greatly facilitated to contribute to the regional economic development.

5.TECHNICAL TRANSFER
Technical transfer has been made to the counterparts through the field work in the Philippines and office work in Japan.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The four kinds of maps are now sold to the public in the Philippines.
The maps are widely used for the formulation of various development plans and studies in Metro Manila.

The maps are also utilized by JICA studies and popular among users.

(FY 1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
The urban base maps of scale 1:10,000 are prepared for the first time in the Philippines.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マニラ都市基本図作成

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (Other)

ASE PHL/A 602/88

Compiled Mar.1990
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Preparation of Forest Information in Wide Area and Forest Management Planning

3.SECTOR
Forestry/Forestry & Forest Conservation

4.REFERENCE NO.

5.TYPE OF STUDY Other

6.COUNTERPART AGENCY
Bureau of Forest Development Ministry of Natural Resources

7.OBJECTIVES OF STUDY
The objective of this study is preparation of Forest Management Plan to conserve the natural environment and stable the socio-economic condition in the study area.

8.DATE OF S/W May.1985

9.CONSULTANT(S)
Japan Forest Technical Association
Pasco International Inc.

10.STUDY TEAM

No.of Members 14
Period Jul.1985-Jun.1988(36 months)

Total M/M	Japan	Field
155.00	110.00	45.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Aerial Photography

12.EXPENDITURE

Total	401,069 (¥'000)
Contracted	375,054

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
An Area 28,000 sq.km in the Cagayan River Basin in Northern Luzon

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

1. The forest management plan for wide area was formulated on the above mentioned area.
2. A 50,000 ha of Model area was established in the above mentioned area and the forest management plan for Model area was formulated.

4.CONDITIONS AND DEVELOPMENT IMPACTS

It is necessary to examine the social demands, economic effects and financing when the forest management plans are implemented.
It will bring good results for reduction of the forest devastation and natural environment conservation by setting up the basic forest management plan for the whole country using the above mentioned plans.
The basic forest management is to manage the unplanned forest exploitation and forest utilization.

5.TECHNICAL TRANSFER
To accept trainees/To guide the way of collecting and arranging the forest information in wide area and to conduct these joint works/To conduct the joint works for formulation of the forest management plans/To conduct the joint field works.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY1992 Overseas Survey)
The results of the study were used as the most comprehensive example of the land evaluation procedure which combines the techniques of Remote Sensing, Geographic Informatin System (GIS) and ground validation. The project is the first ever large-scale example of a completed GIS application in Southeast Asia. The project used the most sophisticated GIS software available (ARC-INFO) at that time and even up to the present.
Results of the study were also widely used as a model for the different thematic maps for the Forestry Master Plan Project, for the ADB-financed Reforestation Project, and for the Survey Mapping and Planning (SMP) of all proposed reforestation projects.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 広域森林情報分析管理計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/A 105/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Small Water Impounding Management Project

3.SECTOR
Agriculture/Irrigation, Drainage & Reclamation

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Department of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
- Formulation of the M/P for smooth implementation of the project
- Preparation of criteria and guidelines for implementation of SWIM project

8.DATE OF S/W .0

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

10.STUDY TEAM

No.of Members 11
Period Aug.1988-Feb.1990(20 months)

Total M/M	Japan	Field
82.41	25.50	56.91

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
none

12.EXPENDITURE

Total	255,674 (¥'000)
Contracted	182,150

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The whole of Philippines

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	265,000		
2)			

3.CONTENTS OF MAJOR PROJECT(S)
- Selection of 230 candidate projects for developing small water impounding dams
- Preparation of 10 year Action Program (1991-2000)
- 118 projects from the 230 candidates will be implemented during the first five years of the Action Program
- The rest of the projects will be implemented during the second five years (incuding 34 projects which should be re-studied)

4.CONDITIONS AND DEVELOPMENT IMPACTS
- IRR=17.5% (overall 230 projects)
- Increase of production (200,000 ton) by increase of irrigated paddy field (28,000 ha)
- Increase of income of beneficiaries (Peso 14,000/family)
- Watershed Management (reforestation: 45,000 ha)

5.TECHNICAL TRANSFER
Technology transfer to counterparts in the course of the study.
Full-time (15 persons), part-time (8 persons).

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Of the proposed 230 projects, 39 were selected and approved for an OECF loan.

Jan.1988 OECF L/A signed (Small Reservoirs Development 3,193 million yen, of which 958 million yen for local cost component)

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 農業用小規模ため池整備計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P)

ASE PHL/A 104/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Fish Transport System

3.SECTOR
Fisheries/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Department of Agriculture
PFDA

7.OBJECTIVES OF STUDY
To formulate M/P on Fish Transport System in the Philippines to improve the seafood treatment

8.DATE OF S/W Feb.1988

9.CONSULTANT(S)
System Science Consultants

10.STUDY TEAM

No.of Members 11
Period Mar.1988-Aug.1989(17 months)

Total M/M	Japan	Field
49.05	19.19	29.86

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Nil

12.EXPENDITURE

Total	149,277 (¥'000)
Contracted	140,635

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Nationwide

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	67,817,000	20,673,000	47,145,000
US$1=21Peso	2)			

3.CONTENTS OF MAJOR PROJECT(S)
The Project components are:
1) Off-shore facilities of fish transport vessel, training vessel, fish carrier vessels and payao.
2) On-land facilities/building of office building, insulated fish box manufacturing plant, several processing plants,ice making plant, work shop, electrical sub-station, auction hall.
3) On-land facilities of antenna tower, tank water treatment facilities.
4) On-land equipment of mobiles, workshop equipment, information/communication equipment, cooking facilities and demonstration facilities etc..
5) Infrastructure of rehabilitation for existing NFP, access road, extension for city water taking, wiring electrical power primary line and reclamation.

4.CONDITIONS AND DEVELOPMENT IMPACTS
Conditions: Social life of the project was assumed to be 30 years. Physical life was assumed as 5 years to 25 years by the components. Prices on 1988. Completion of construction in 5 years after commencement of construction.

Development Impacts:
Direct Benefits- the value in saving cost/time through the FTS project.
Indirect Benefits-
1.Increase in international competitiveness and with it, the acquisition of foreign exchange
2.Greater employment opportunities
3.Promotion of regional development.
4.Increase in the production of fish products
5.Redistribution of income among fishermen, fish pond operators,traders, and transporters
6.Setting of appropriate fish prices for consumers as well as for fish producers

5.TECHNICAL TRANSFER
1) Acceptance of trainees
2) Joint work for creation of report
3) Fish Quality Testing System

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
This project was combined with the Nationwide Ice Plants and Cold Storage (NIPS) Network Project, which was proposed by the JICA M/P study during 1983 - 1985. The OECF-financed E/S of the combined project was completed in 1989 by the Pacific Consultants International.
The E/S selected 4 zones (Camarines Norte, Iloilo, South Cotabato and Zanboanga del Sul) and one prototype (Camarines Sul) out of 11 zones and 52 prototypes in the master plan study and conducted the follow-up study and detailed design and prepared tender documents.

(FY1991 Overseas Survey)
Based on the E/S, the Government of the Philippines included this combined project to the application list for the 17th Yen Credit Package. The project was not approved, but the Philippine Fishery Development Authority (PFDA) plans to reapply for the 18th Yen Credit Package.
The PFDA formulated a pilot project, the Intergrated Fish Trading Complex, on the basis of the project and submitted its proposal for grant aid to the Japanese Government. The request was not successful.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 水産物輸送システム総合計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 206A/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Flood Control and Drainage Project in Metro Manila

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Department of Public Works and Highway

7.OBJECTIVES OF STUDY
To prepare the master plan of flood control and drainage improvement in Metro Manila and to conduct the feasibility study on the selected priority projects

8.DATE OF S/W Jul.1987

9.CONSULTANT(S)
CTI Engineering Co., Ltd.
Nihon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 14
Period Dec.1987-Mar.1990(27 months)

Total M/M	Japan	Field
123.94	71.84	52.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Longitudinel and Cross Sectional Survey of Rivers and Main Channels Installation of Rain Gauge and Water Level Guage Stations

12.EXPENDITURE

Total	366,706 (¥'000)
Contracted	344,031

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Metro Manila and its Neighboring Area, about 981sq.km in total

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	634,883		
US$1=21.3P=132Yen	2)			

3.CONTENTS OF MAJOR PROJECT(S)

Master plan consists of the flood control for the four main rivers and the drainage improvement for the eight inland areas in Metro Manila and its neighboring area.

Flood control in the Pasig-Marikina River, passing through the core of Metro Manila, consists of the construction of Marikina Dam and Marikina Control Gate Structure(MCGS) as well as the river channel improvement. Over three Rivers such as Bili-Baho-Mahaba, Malabon-Tullahan and South Paranaque-Las-Pinas consists of river channel improvement.

As for the drainage system by pumping station and drainage channel was fundamentally applied. In Malabon-Nabotas and East and West of Mangahan areas, the coastal dike and lake dike is provided along the shoreline.

4.CONDITIONS AND DEVELOPMENT IMPACTS

Master Plan was prepared with the target year of 2020, considering the financial restriction for implementation. The safety degree of the plan was set based on the economic evaluation and social significance of the area.

Flood Control: Pasig-Marikina River 100 year / Other 3 Rivers 30 year
Drainage Improvement: Marabon-Navotas 5 year / East of Mangahan 5 year
West of Mangahan 5 year/ Other 5 areas 3 year

In the above, drainage improvement in Manila and its neighboring area is not included because the construction of three pumping stations and drainage channel improvement are on-going under the 14th OECF loan, together with the retrieval of flood-prone area under the JICA grant aid. The safety degree in this area reaches almost 10 year after the completion of these aid projects.

Impacts: The drastic decrease of flood & drainage damage can be expected.

5.TECHNICAL TRANSFER
Transfer of knowledge
1.On-the-job-training for counterparts by each expert.
2.Guidance and training on hydrological observation, operation and maintenance

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
A feasibility study was subsequently undertaken on three priority projects (the drainage improvement in East and West of Mangahan, the drainage improvement in Malabon-Tullahan and the river improvement in Pasig River) .

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マニラ洪水対策計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 206B/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Flood Control and Drainage Project in Metro Manila

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Dept. of Public Works and Highways (DPWH)

7.OBJECTIVES OF STUDY
To prepare the master plan of flood control and drainage improvement in Metro Manila and to conduct the feasibility study on the selected priority projects

8.DATE OF S/W Jul.1987

9.CONSULTANT(S)
CTI Engineering Co., Ltd.
Nihon Koei Co., Ltd.

10.STUDY TEAM

No.of Members 14
Period Dec.1987-Mar.1990(27 months)

Total M/M	Japan	Field
123.94	71.84	52.10

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Longitudinel and Cross Sectional Survey of Rivers and Main Channels.
Installation of Rain Gauge and Water Level Guage

12.EXPENDITURE

Total	366,706 (¥'000)
Contracted	344,031

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
1.East and West of Mangahan 2.Marabon-Navotas 3.Pasig-Marikina River

2.PROJECT COST
(US$1,000)
US$1=21.3P=132Yen

	Total Cost	Local Cost	Foreign Cost
1)	132,000	35,400	96,600
2)	52,400	16,600	35,800
3)	65,800	22,300	43,500

3.CONTENTS OF MAJOR PROJECT(S)
1.Drainage Improvement in East and West of Mangahan.
-Lake Dike ; 10,700m in total length
-Pumping station ; 9 places
-New construction of drainage channel ; 19,750m in total length
2.Drainage Improvement in Malabon-Navotas
-Coastal Dike ; 6,800m in total length
-Pumping station ; 6 places
-New construction of drainage channel(Open channel) ; 2,700m in total length
3.Pasig-Marikina River Improvement
-River Improvement ; 23,920m in total length
-Marikina Control Gate Structure(MCGS) ; 1 place

Imp. Period: .1991-.2000

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes

EIRR1)	16.80	FIRR1)
EIRR2)	15.90	FIRR2)
EIRR3)	16.10	FIRR3)

Conditions and Development Impacts:

Conditions:
Three priority projects are scheduled to be completed in the year 2000. The design safety of each project is as follows.
1) East and West Mangahan : 5 years
2) Malabon - Navotas : 5 years
3) Pasig - Marikina : 30 years
The design safety of the Pasig-Marikina River Improvement is lower than that of the master plan, because the former excludes the Marikina Dam.

Development Impacts:
Three projects cover the areas in Metro Manila which are most seriously affected by floods and drainage problems. Their implementation will substantially lessen the damages caused by chronic flooding.

* EIRR 1) is for East and West Mangahan, EIRR 2) for Malabon - Navotas, and EIRR 3) for Pasig - Marikina.

5.TECHNICAL TRANSFER
Guidance and training on hydrological observation, operation and maintenance methods of equipment and Data filing system.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The priority projects were incorporated into the Medium Term Investment Plan 1987 - 1992. (FY199 Overseas Survey)

Of the three projects, the Drainage Improvement in East and West Mangahan has been included in the 16th OECF Yen Credit for engineering services.

Feb.1990 OECF L/A signed (E/S 454 million yen)
Feb.1993 D/D completed

GOP is planning to apply for an OECF loan for project implementation.

(FY1991 Overseas Survey)
The proposed project was included in the medium-term investment plan (1987 - 1992).

2.MAJOR REASONS FOR PRESENT STATUS
In 1986 and 1988, East and West Mangahan was seriously inundated for two to three months by the flooding of the lake.

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 マニラ洪水対策計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 205A/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Groundwater Development in Panay Island

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Local Water Utilities Administration

7.OBJECTIVES OF STUDY
Assessment of Dependable Yield of Groundwater for Water Supply

8.DATE OF S/W Dec.1987

9.CONSULTANT(S)
Nippon Jogesuido Sekkei Co., Ltd.

10.STUDY TEAM

No.of Members 6

Period Mar.1988-Nov.1989(20 months)

Total M/M	Japan	Field
47.51	17.05	30.46

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	269,387 (¥'000)
Contracted	142,350

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
13 towns in Panay Island(Malay,Ibajay,Bonqa,Kalibo, Iyisan, Pontevedra,Pilar,Sara,Lambunao,Leon,Miagao, Jordan, New Washington

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	4,960		
2)			

3.CONTENTS OF MAJOR PROJECT(S)

In respect of 13 selected municipalities in Panay Island, the Study analyzed water resource potentials, and estimated water requirements. The Study formulated water resource development plans, by identifying major water sources and making conceptual designs of necessary facilities for the municipalities.

1) Malay: Repair of water pipes & rehabilitation of the water supply system.
2) Ibajai: More detailed electric investigation necessary
3) New Washington: Diversion from Kalibo needed to supply water
4) Kalibo: Exiting deep well to be used as a pilot well and a new deep well to be bored near Aquran River
5) Banqa: Immediate rehabilitation of existing facilities
6) Ivisan: Detailed surface investigation & horizontal boring needed
7) Pontevedra: Organization of water users' associations and formulation of a development plan
8) Pilar: Detailed surface investigation & horizontal boring needed
9) Sara: Horizontal boring needed to increase water supply
10) Lambunao: Infiltrated water of Urian River to be developed as a water source
11) Leon: Shibaron River to be developed as a water source
12) Miagao: A deep wellto be bored near Tomaquboku River
13) Jordan: More detailed investigation necessary

4.CONDITIONS AND DEVELOPMENT IMPACTS

Conditions:
1) Groundwater is the primary source of water and will be harvested by deep wells, because it will not require water treatment facilities. Where groundwater is not readily accessible, springs, infiltrated river water and other sources will be utilized.
2) Water Districts will be formed in municipalities in accordance with the Provincial Water Act.
3) Generally inadequate financial positions of municialities require that the development of facilities be financed by the central government subsidies or soft loans.

Development Impacts:
Stable and low-cost supply of safe drinking water will contribute to the social stability, improvement of health and reduction of housework related to water supply, and thereby to the increase of productivity.

5.TECHNICAL TRANSFER
Training (including OJT) was provided regarding groundwater resource survey with data analysis and water well construction management.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
A feasibility study was subsequently undertaken.

2.MAJOR REASONS FOR PRESENT STATUS
Not only local municipalities, but also LWUA has insufficient financial capability requires appropriate budgetary arrangement by LWUA

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 パナイ島地下水開発計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/S 205B/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Groundwater Development in Panay Island

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Local Water Utilities Administration

7.OBJECTIVES OF STUDY
Assessment of Dependable Yield of Groundwater for Water Supply

8.DATE OF S/W Dec.1987

9.CONSULTANT(S)
Nippon Jogesuido Sekkei Co., Ltd.

10.STUDY TEAM

No.of Members 6

Period Mar.1988-Nov.1989(20 months)

Total M/M	Japan	Field
47.51	17.05	30.46

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	269,387 (¥'000)
Contracted	142,350

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	4,960		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

In respect of 13 selected municipalities in Panay Island, the Study analyzed water resource potentials, and estimated water requirements. The Study formulated water resource development plans, by identifying major water sources and making conceptual designs of necessary facilities for the municipalities.

Groundwater is the primary source of water and will be harvested by deep wells, because it will not require water treatment facilities. Where groundwater is not readily accessible, springs, infiltrated river water and other sources are to be utilized.

Deep wells: Kalibo, New Washington, Banqa and Pontevedra
Infiltrated river water: Ibajay, Lambunao, Leon and Miaqao
Springs and surface water: Malay, Ivisan, Pilar, Sara and Jordan

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

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

Conditions and Development Impacts:

1) After a series of consultations with LUWA, 1995 is set as the target year of the municipal water supply development plans.

2) Regarding those municipalities without water supply facilities, the entire systems will be newly developed. For other municipalities, improvement and remodelling will be proposed after evaluating the conditions nd capacities of existing facilities.

3) The Study estimated groundwater potentials which can be tapped and identified necessary basic facilities with conceptual designs. Therefore, more detailed feasibility studies will be necessary before implementation.

5.TECHNICAL TRANSFER

Training (including OJT) was provided regarding groundwater resource survey with data analysis and water well construction management.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

Part of the proposals are being implemented by the Japanese Grant Aid Program.

Jul.1990 E/N signed (Regional Environmental Public Health, 1 billion yen)
Aug.1991 E/N signed (Rigional Environmental Public Health, 0.65 billion yen)

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 パナイ島地下水開発計画

{F/S,(M/P)+F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/A 201A/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Integrated Agricultural Development Project in Marinduque

3.SECTOR
Agriculture/General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Marinduque Provincial Government

7.OBJECTIVES OF STUDY
Establishment of Master Plan on Agricultural Development in Marinduque Island

8.DATE OF S/W Jul.1988

9.CONSULTANT(S)
Sanyu Consultants Inc.
Chuo Kaihatsu Cor.

10.STUDY TEAM

No.of Members 10
Period Nov.1988-Nov.1989(13 months)

Total M/M	Japan	Field
49.00	18.13	30.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	202,380 (¥'000)
Contracted	151,037

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Entire Marinduque Main Island, Marinduque Province

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	174,300		
US$1=21.8Peso	2)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Agricultural Development (the entire island of 80,500ha)
   Farm Technology Development; Farm Management Development; Crop Projection Scheme; Animal Husbandry Development Plan; Agricultural Support Scheme; Marinduque Agricultural Development Promotion Farm (MADPP)
2. Agricultural Infrastructure Improvement
   Irrigation Plan 3,810ha; Drainage and Flood Protection 3,690ha; Rural Roads 930km;
   Village Water Supply 2 places
3. Rural Infrastructure Improvement
   Rural Water Supply 7 places; Mini-hydropower Development 4.4GWH; Rural Electrification; Transportation; Education and Welfare; Communications
4. Fishery Development
   Improvement of Brackish Water Fish Culture Demonstration Farm; Development of Fresh Water Fish culture; Culture Programme of Coconut Crabs
5. Accelerated Development of Agricultural Project (MADPP)
   Agricultural Development; Agricultural Infrastructural Development; Rural Infrastructural Development; Aquaculture Development

4.CONDITIONS AND DEVELOPMENT IMPACTS

Development Benefits:
1) Increase of agricultural production
   The present farm income of typical farmers will improve from 9,255 pesos to 21,702 pesos. The project will create 44,000 jobs.
2) Reduction of Flood Damages
3) Improvement of rural road networks
4) Improvement of rural water supply
5) Improvement of rural electification

5.TECHNICAL TRANSFER
Training in Japan
(One Official Marinduque Province)

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The master plan was approved by the Provincial Government of Marinduque and the Accelerated Development of Agricultural Project (MADPP) was selected for the Japanese Grant Aid Program of FY1991.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マリンデュケ農業総合開発計画

{M/P,M/P+(F/S),Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

ASE PHL/A 201B/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Integrated Agricultural Development Project in Marinduque

3.SECTOR
Agriculture/General

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Marinduque Provincial Government

7.OBJECTIVES OF STUDY
Pre-F/S study within the priority project areas

8.DATE OF S/W Jul.1988

9.CONSULTANT(S)
Sanyu Consultants Inc.
Chuo Kaihatsu Cor.

10.STUDY TEAM

No.of Members 10
Period Nov.1988-Nov.1989(13 months)

Total M/M	Japan	Field
49.00	18.13	30.87

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	202,380 (¥'000)
Contracted	151,037

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Santa Cruz Area in Marinduque Island

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	8,196		
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

The short-term development plan was formulated for Taqum Anqas District as follows.

1. Agricultural Development
   - Strengthening of Marinduque Agricultural Development and Promotion Farm: 6.5ha
   - Rehabilitation of the cattle breeding center: 1,500 sq.m
   - DA municipal nurseries: (0.5ha
   - Demonstration Farms of paddy and upland crops: irrigated 10ha, rainfed 2ha
   - Post harvest facilities for rice and corn: storage sheds, dryers, rice mills
2. Agricultural Infrastructure Improvement
   - Irrigation development: area 630ha, canals 25km
   - Rural Road development: 25km
   - Village water supply: 1 place, pipelines 25km
3. Rural Infrastructure Improvement
   - Rural electrification
   - Transportation system development
   - Improvement of educational facilities
4. Fishery Development
   - Brackish Water Fish Culture Demonstration Farm: 10ha
   - Prawn hatchery : 360 sq.m
   - Ice plant: 300 sq.m

Imp. Period: .1991-.1992

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility:				
Yes	EIRR1)	17.00	FIRR1)
	EIRR2)		FIRR2)
	EIRR3)		FIRR3)

Conditions and Development Impacts:

Conditions:
- Expansion of effective irrigation (no new development)
- Improvement of farming technologies
- Project life of 30 years

Development Impacts:
- Paddy production will increase from 829 tons to 3,955 tons.
- Improvement of cattle and buffalo breeds and increase of livestock production
- Increased traffic, including harvested agricultural produce
- Improvement of public health and education standards

Measureable benefits from the project will reach 82.9 million pesos in June-1989 prices in the final year. (agriculture 67.3 million, rural roads 4 million, rural water supply 1.3 million, rural electrification 1.7 million, fisheries 8.6 million)

5.TECHNICAL TRANSFER
Training in Japan
(One Official of Marinduque Province)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
It was formally agreed in June 1990 to implement the Accelerated Development of Agricultural Project (MADPP) as part of the Japanese Grant Aid Program.

Apr. 1991 Preliminary Survey Mission
Sep. 1991 - 1992 Basic Design Mission
Jul. 1992 E/N signed
Jan. 1993 Construction started

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マリンデュケ農業総合開発計画

{F/S,(M/P)+F/S,D/D}