PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1986
Revised Mar.1996

ASE PHL/S 202B/82

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.
Planning on the water supply expansion plan up to the year 2010 and selection of emergency project.

8.DATE OF S/W: 1981/3

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: None

12.EXPENDITURE

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

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Laoag district (Ilcos Norte Province), Legaspi City and Daraga Town (Albay Province), Tagbilaran City (Bohol Province)

2.PROJECT COST (US$1,000) (US$1=7.80P)

M/P	1)	56,480	Local Cost	21,860 Foreign Cost	34,620
	2)				
F/S	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)

<M/P> Phase (Target year)	Served Population	Water Demand(cu.m/day)	Facilities
Basis (1982)	76,500	14,800	
Phase-1(1987)	116,760	28,933	Improvement of existing facilities Expansion of distribution pipelines
Phase-2(1993)	206,690	45,608	Expansion of water facilities including new water resources
Phase-3(2010)	358,811	71,231	More expansion of Phase-2

The project cost 1)above is for the entire schemes. The project costs for different districts are as follows.

	Total Cost	Local Cost	Foreign Cost
Laoag	24,280	9,200	15,080
Legaspi	11,940	4,740	7,200
Daraga	89,00	3,500	5,400
Tagbilaran	11,360	4,420	6,940

<F/S>(1)Laoag area:water intake conduits, deep wells, transmission and distribution pipes, etc. (4,130 cu.m/day) (2)Legaspi area:spring water, transmission and distribution pipes, etc.(6,480 cu.m/day)
(3)Daraga town: spring water, transmission and distribution pipes,etc. (4,320 cu.m/day) (4)Tagbilaran 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) Laoag area, 2) Legaspi area, 3)Daraga town. The project costs for Tagbilaran city are as follows. Total Cost:6,560, Local Cost:2,510, Foreign Cost: 4,050.

Imp. Period: 1984.1-1986.12

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

<M/P><Assumptions> Based on the served population, which was assumed to rise gradually, future water demand was projected.
<Impacts>(1) Full utilization of the existing water sources.
(2) Alleviation of the chronic water shortage
(3) Expansion of the water supply system
<F/S><Conditions>F/S was carried out for two cases: the initial project of Phase 1, the combined project of Phase 1 and Phase 2.
<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
Laoag area	11%-14%	9%-11%
Legaspi area	24%-37%	14%-18%
Daraga 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
  - ● Partially 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

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

2.MAJOR REASONS FOR PRESENT STATUS
<M/P>Provision of water supply is an essential infrastructure for improving environmental and sanitary condition in the respective four cities, as they have been developing as the center of the regions.
<F/S> The scope of the project was reviewed and modified by the present administration after Marcos Regime fell.

3.PRINCIPAL SOURCE OF INFORMATION
①、④

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1986
Revised Mar.1996

ASE PHL/S 201B/82

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: 1981/2

9.CONSULTANT(S): Overseas Coastal Area Development Institute

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)

		Local Cost	Foreign Cost	
M/P	1)			
	2)			
F/S	1)	12,941	4,167	8,774
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>
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.

<F/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: 1983.10-1986.12

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

<M/P> 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.
<F/S> 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

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
5)Donation of machinery and instruction of its use.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

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

(FY1991 Overseas Survey)
The project implementation has been suspended since the political change in 1986 and is now considered unlikely.

(FY1994 Domestic Survey)
No additional information.

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

①、②、④

和名 アイリーン港整備計画

{M/P+F/S}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 306/82

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

2.NAME OF STUDY
Alcogas Project

3.SECTOR
Agriculture/(Agriculture in)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: 1980/12

9.CONSULTANT(S)
Nippon 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: 1981.1-1986.5

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

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

Conditions and Development Impacts:
[Conditions]
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.

(FY 1993 Domestic Survey)

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
- [ ] Promoting
- ○ Completed
- ○ Partially Completed
- ■ Delayed or Suspended
- ○ Implementing
- ○ Processing
- [ ] 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.

(FY1993 Overseas Survey)
Originally, it had been planned that PNAC will take charge of the political matters and PNOC will take charge of the implementation and the administrative matters of the Project, respectively.
However, since the imd of 1980's, the Government of Philippines is suspended the implementation of the Project due to a considerable fall in prices of crude oil.
It seems to be very difficult to adopt this Alcogas Project by the Government, unless a big change of the price of crude oil and/or situations of other energy resources (such as coal, bio-gas, natural energy and so on) some out.
All of PNAC and a part of PNOC (in charge of Alcogas) has been dissolved.

(FY1994 Overseas Survey)
No progress.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

{F/S,D/D}

和名 アルコガス計画

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 305/82

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

2.NAME OF STUDY
Mabini Agricultural Development Project

3.SECTOR
Agriculture/(Agriculture in)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: 1981/2

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
Topographic and Geological Survey

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

3.CONTENTS OF MAJOR PROJECT(S)

The Government of Philippines has been laying high priority on the agricultural development in the 5-year Develoment Plan and endeavoring the increase of food-stuff and of people's income through securing irrigation water by development of water resources.
Under this background, the Groverment of Philippines is planning to increase the rice production by supply of the irrigation water constructing or rehabilitating the irrigation facilities and is planning sequently the increase of farmer's income and the stability of the public welfare through the improvement of related agricultural development facilities or of institution of agricutlture on the Mabini area located at the western part of Pangasinam province in the north-west of Luzon island.
-Project Area 20,000ha
-Irrigation Area 11,500ha
-Dam Type:Center-core Type Rockfill Dam, Height:88.5m, Length 530m
-Reservoir Total capacity:303MCM, Effective capacity:240MCM, Reservoir Area:12.2km2
-Driving Caneal 7.7km
-Main Canal 52.5km
-Branch Canal 135.3km
-Electric Power Power Station 2 locations, Generation Facility Capacity of Facility: 3,000KW, 7,000KW, Annual Power Generation: 25million KWH

Imp. Period: 1983. -1988.

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

[Conditions]
(1)Construction cost conversion factor of 0.827 is adopted for general construction cost.
(2)Normal conversion factor of 0.820 is adopted for operation and maintenance cost.
(3)Benefits from irrigation and power generation are used.
(4)It is assumed that dam is complete by 6th year, benefit of one third is occured at 7th year and full benefit is occured from 8th year.
(5)Durability of the Project is assumed to be 50 years after the facility is fully operated.

[Development Impacts]
(1)Contribution to the self-sufficiency of food-stuff through increasing agricultural production.
(2)Increase of farmer;s income of the Project area.
(3)Increase of employment opportunity by the construction of facility.
(4)Reduction of flood damage by the construction of dam.

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

(Description)
(FY1991 Overseas Survey)
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.

(FY1993 Overseas Survey)
This project is treated as the plan of CORPLAN which will be implemented from 1998 to 2005 by NIA. Although at the Project Site, they are willing to change the project name into the ALABANAS project, the contents of plan are not changed.
The Project target area is the sphere of influence of the President Ramos, therefore, the NIA predicts that it is possible to accelerate the raising expences and implementation of the Project.

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

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

(FY1992 Overseas Survey)
Economic and political circumstances.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 マビニ地区農業開発計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1996

ASE PHL/S 312/82

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: 1980/12

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: 1983. -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
  - ◉ Partially Completed
  - ○ Implementing
  - ○ Processing
- □ Promoting
- □ Delayed or Suspended
- □ Discontinued or Cancelled

(Description)
(FY1992 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)
Dec.1990 Construction started (to be completed in Dec.1994) Construction of the eastern R-4 has been suspended pending the relocation of squatters. Construction of the southern section of C-5 has not been started pending the acquisition of the right of way. Total Investment 1,445 million pesos (foreign currency 87) million, local currency 572 million)

(FY1993 Overseas Survey)
Zapote - Alabang Road: Right-of-Way probrems caused the project to delay.
Zaging - Las Pinas - Muntinlupa Road: The cost of right-of-Way acquisition has decreased economic feasibility of the project. However, a new alignment was established and is known as the southern Sectio of C-5. OECF loaned this project.

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

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
①、②、③

(F/S,D/D)

和名 マニラ首都圏南部地区幹線道路網計画

PROJECT SUMMARY (F/S)

Compiled Mar.1986
Revised Mar.1996

ASE PHL/S 311/82

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: 1981/2

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)	63,628	15,398	48,230
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 anslysis.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The 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.

(FY1992 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.

(FY1993 Overseas Survey)
The Government proposes to find alternative routes (other than the Daltor Pass).

(FY1994 Domestic Survey)
From the econoic reason, the tunnel project in deferred and it is planned to use the existing road in the mean time. On this line, rehabilitation of the existing road and provision of disaster prevention measures are presently being implemented under the OECF Yen Loan Program.
On the other hand, a project for constructing the road which can be utilized as detour route of Dalton Pass in case of its interruption is formulated.
The tunnel project is expected to be materialized when the time is ripe for its execution by economical development and increase in traffic demand.

(FY1995 Domestic Survey)
Regarding to the tunnel construction, there are no change since last fiscal year. The detailed design works for the detour route has been decided to be implemented by Yen Credit.

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
①、②、③

和名 ダルトン・パス・トンネル計画

{F/S,D/D}

PROJECT SUMMARY (Other)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 602/83

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

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

3.SECTOR
Social Infrastructu/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: 1982/2

9.CONSULTANT(S)
Nippon 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
None

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

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

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.

(FY1991 Overseas Survey)
No additional information.

(FY1993 Overseas Survey)
Mayon Volcano Sabo and Flood Control Project (Re-Study):
Plans and Programs proposed in the study have been recommended for implementation to OECF Yen credit package but OECF evaluated that it should be wait until lying dormant.

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

{M/P,Basic Study,Other}

和名 マヨン火山砂防計画

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 309/83

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/(Agriculture in)General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
NIA(National Irrigation Administration)

7.OBJECTIVES OF STUDY
AMRIS
Objectives of Study:
to carry our feasibility study on rehabilitation and strengthening of O & M for the national irrigation systems which were constructed by NIA.

8.DATE OF S/W 1982/2

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
None

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)
The feasibility studies are composed of two projects, that is, Angeat Masim area with 31,400ha, and selected 18 irrigation areas distributed in the whole country. Both projects are aiming at strengthening of operation and maintenance of the irrigation systems including NIA and water users association, and rehabilitation of the irrigation facilities.

	Improvement	Construction	Total
(1) Head Work	3	1	4 places
(2) Canal	161	110	271 km
(3) Canal Structures	2866	166	3032 Places
(4) Drainage Canal	189	14	202 km
(5) Drainage Canal Structures	16	38	54 places
(6) Road	263	23	286 km
(7) On-farm Facilities	29374	5591	34965 ha
(8) Ratio of Water Charge Collection	Present 60%	Future 81%	

Imp. Period: 1984.1-1990.12

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

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

Conditions and Development Impacts:
[Conditions]
- Exchange rate 1US$=11pesos
- Project life 50 years
- Replacement of pumps every 20 years. O & M equipments 10 years
- Cost reduction through repair of facilities and improvement of maintenance and management function
- Increase of profit by introduction of field crops

[Development Impacts]
- Effective use and improvement of O & M of the national irrigation systems
- Increase of agricultural production
- Establishement and strengthening of water users association, and effective use of water on farm level
- Improvement and strengthening of O & M of NIA's O & M organization
- Lift up the living standard of farm households

5.TECHNICAL TRANSFER
- transfer to NIA
- group training

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The Government 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.

(FY1994 Domestic Survey)
The Phase-2 of the Diversified Crops Irrigation Engineering Center, (Project-Type Cooperation) was started on 25 May, 1993.
Among Priority Project suggested by the Study, NIA requested Grant Aid Project for the rehabilitation of Bustos Diversion Dam, which was damaged by Typhoon flood on its sector gates.

(FY1995 Domestic Survey)
These provinces are the target area of 'Water Resources Development Project' of the World Bank. Survey works have been completed and the project implementation is going to start on 1996.

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
①、②

和名 かんがい組織維持管理強化計画 (AMRIS, 18地区)

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 308/83

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/(Agriculture in)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: 1982/7

9.CONSULTANT(S):
Nippon 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 45.6 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: 1985.1-1994.6

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
  - ○ Partially 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.

(FY1993 Overseas Survey)
This Project is Planned to implement on the period of 1997 to 2002 as for the one of big project according to the CORPLAN of NIA. Therefore JICA's technical cooperation has been requested in order to carry out good maintenance and administration.
The most of existing irrigation facilities was built up on 1968 and getting rather old. So, it is requested to rehabilitate and improve them in order to realize the effective utilization of the limited water resources in this area.

(For Reference)
In connection with this Project, NIA is now implementing following two
(2)Loan Projects: -
1)IOSP(II): Irrigation Operation Support Project I
2)ISIP : Irrigation System Improvement Project
ISOP(II) is financed by the World Bank and completed its Phase I. On 1993, Phase II is commenced for five(5) years for the rehabilitation of irrigation facilities and enforcement of the agricultural organization. Besides, ISIP is for the rehabilitation of No.10 and No.11 block in Mindanao Island. It will be considered to extend in total eighteen(18) blocks in all over the country in future. A part of this Project is involved in the ISIP, and an amount of 8 to 10 billion yens of fund is estimated by NIA necessary for this Project.

(FY1994 Domestic Survey)
Due to the reorganization of NIA, the implementation of the investigations not only for simple UPRIIS but National Irrigation System for all over the country is now taking into consideration.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

{F/S,D/D}

和名 かんがい組織維持管理強化計画 (UPRIIS)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 307/83

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

2.NAME OF STUDY: Matuno River Development Project

3.SECTOR: Agriculture/(Agriculture in)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: 1981/10

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:
None

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
- [ ] Promoting
- ○ Completed
- ○ Partially Completed
- ■ Delayed or Suspended
- ○ Implementing
- ○ Processing
- [ ] 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.

(FY1993 Overseas Survey)
•According to CORPLAN of the National Irrigation Authority (NIA), this Project will be commenced on 2001.
•This Project is devided by two(2) stages, i.e. the 1st stage for irrigation development managed by NIA and the 2nd stage for hydropower development managed by the National Power Corporation (NPC).
•However, NIA expects that the Project will be implemented mainly for the 1st stage, and the 2nd stage seems to be impossible to realize due to the financial restrictions.

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

2.MAJOR REASONS FOR PRESENT STATUS
Due to the financial difficulty, it is very hard to implement to develop hydropower station. If it is only for agricultural development, the merit is too small.

3.PRINCIPAL SOURCE OF INFORMATION
①、③

{F/S,D/D}

和名 マツノ川開発計画

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 313/83

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 1982/2

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
Mozaic Photography, Route Survey, Soil Test and Material Test

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
1)OJT : In the field of highway network planning. 2)Employment of local consultants for aerial-photo mosaics, route survey and soils & materials investigation.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
(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 Project: Mindanao Av. Extension (8km, 6 lanes), R-10 widening(6km), C-3 Southern Section (9km, 6 lanes) and related roads(23km)
4,776 million yen)
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.

(FY1993 Overseas Survey)
C-5 (Northern Section)
UP - Aurora Blvd: Implementation by local fund is scheduled.
Other section: BOT scheme is envisioned for its impleentation.
C-6 PNCC conducted a study on C-6 as a toll road. Right-of-way acquisition costs were found expensive. Funds from external and internal resources will be necessary.

(FY1994 Domestic Survey)
Circumferential Road 5 (Northern Part)
-Section between R-6 and R-7 : Implementation by the local fund is proposed.
-Section North of R-7 : Implementation of C-5 project together with Manila-Subic-Clark Expressway project if scheduled under BOT schme
Circumferntial Road 6
BOT scheme is studied for its implementation.

(FY1995 Domestic Survey)
C-5 (Northern Section)
Section between R-6 and R-7 : implementation by the local fund is now carrying on.
Section North of R-7 : It is planned to implement by BOT system. Contract agreement is now under negotiation.

2.MAJOR REASONS FOR PRESENT STATUS

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

(F/S,D/D)

和名 マニラ首都圏北部地区幹線道路網計画

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 101/84

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: 1983/8

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=240Yen

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	57,284	50,761	6,523
	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.

(FY1993 Overseas Survey)
In 1993 PFDA packaged a project proposal based on the M/P and E/S and submitted it to the NEDA for consideration under the 19th Yen Credit Package.
However, it was not favorably considered.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、④

和名 水産物流通システム整備計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 105/84

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

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

3.SECTOR
Social Infrastructu/Urben 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: 1983/4

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
Traffic Survey, Survey for the Utilization of Lands

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

		Total Cost	Local Cost	Foreign Cost
(US$1,000)	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
- ☐ 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.

(FY1993 Overseas Survey)
Infanta-Real Area Urban Development Project:

Feasibility studies eliminate in March 1991 was a reason of the peace and order situation in the study area.
In the meantime, implementation agency; Human Settlement Development Corporation, of this project close during Akino government and appointed of its function to SIDCOR; Strategic Investment Development Corporation, as of maintenance agency and LIVECOR as of new pronect agency conducted by former agency.
MEDA Region IV is conducting project coordination for public investment relarted of the project and compeleted feasibility study of major road project and looking for financial source.

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、③

{M/P,Basic Study,Other}

和名 インファンタ・リアル都市開発計画

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 310/84

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

2.NAME OF STUDY: Gumain River Irrigation Project

3.SECTOR: Agriculture/(Agriculture in)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: 1983/2

9.CONSULTANT(S): Nippon 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 Luron

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: 1986.1-1992.12

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
  - ○ Partially 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.

(FY1993 Overseas Survey)
Since the Project site has been badly affected by LAHAR caused by the eruption of Mt. Pinatubo,and there are no possibility to be financed, National Irrigation Administration (NIA) is considering to suspend this Project due to the difficulties to realize and implement.
For example, existing Gumain Dam ws almost filled up by a four(4) meter rise of river bed and destroyed. A big amount of piled silt and fine grained sand are flowed down with flood from the upper stream, and resulted a raise of river bed, erosion of riverbanks and meandering to fill up existing facilities for irrigation and farmland continuously. NIA considers that it would be better to wait until the settlement of the effect of LAHAR and the stabilization of the river flow, without any action.

(FY1994 Domestic Survey)
The Project implementation has been suspended due to the eruption of Mt. Pinatubo.

(FY1995 Domestic Survey)
At present on Aug., 1995, no action has been taken by the Philippines side.

2.MAJOR REASONS FOR PRESENT STATUS

(FY 1992 Overseas Survey)
Damage caused by the eruption of Mt. Pinatubo.

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

和名 グマイン川灌漑開発計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 315/84

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: 1982/11

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
None

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	16,420
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: 1988.9-1995.2

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
- [ ] Promoting
- (●) Completed
- ( ) Partially Completed
- [ ] Delayed or Suspended
- ( ) Implementing
- ( ) Processing
- [ ] 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)

(FY1993 Overseas Survey)
Jul.1990 - Dec. Additional D/D
Jun.1992 Construction started.
Aug.1994 Scheduled to be completed
Aug.1995 O&M Guidance Serviced to end.

(FY1994 Domestic Survey)
Based on the results of F/S, the detailed design (E/S) works were completed in September,1989. And the construction works were commenced in June,1992, and the construction works were scheduled to be finished in late August,1994. However, the construction of one weather radar station building has been delayed, the construction of which is the responsibility of Philippine Atmospheric, Geophysical and Astronomical Services Adm., so that the overall construction of the project is delayed, and will be completed in the middle of December 1994. At present, the related construction works are going on smoothly towards the completion of the project.

(FY1995 Domestic Survey)
Mar., 1995 Construction of the main portion was completed.
Apr., 1995 Implementation of O&M Guidance. (upto Mar., 1996)

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
①、②、④

{F/S,D/D}

和名 気象通信網整備計画

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 316/84

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 Highwa

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

8.DATE OF S/W 1983/2

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
55.86	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)Mahaplag - 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)Mahaplag - 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: 1987.7-1990.6

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 Mahaplag, 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)Mahaplag-Sogod, 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
- ☐ Promoting
- ○ Completed
- ○ Partially Completed
- ☐ Delayed or Suspended
- ● Implementing
- ○ Processing
- ☐ 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 14,00) 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)
Jul.1989 - Feb.1991
Detaile design(Pavement, Bridges, drainage & disaster prevention)completed (Nippon Koei). Because of the 1990 earthquake, the loan was cancelled. GOP has requested Japanese finance for an alternative road.

(FY1993 Overseas Survey)
Dalton Pass (Sta. Rita-Aritao)
Scheduled to be completed in April 1996.

(FY1994 Domestic Survey)
Dalton Pass Section
Rehabilitation works for this Section (PH-P93) is scheduled to be completed in June 1995. Engineering services for Alternative Route of Dalton Pass Section are proposed and financial assistance under the 20th OECF loan Package is requested by the Government of the Philippines.

(FY1995 Domestic Survey)
Dalton Pass Section :
The rehabilitation works for Santa Rita-Aritao section including

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

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

Continued on (F/S,D/D)

状況（要約表添付文書）

ASE PHL/S 316/84 (F/S)

Name of Study: Philippine Road Disaster Prevention Project

Country	Philippines
Type of Study	F/S
Sector	Transportation/Road
Present Status:	Implementing

(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.
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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)
Jul.1989 - Feb.1991
Detaile design(Pavement, Bridges, drainage & disaster prevention)completed (Nippon Koei). Because of the 1990 earthquake, the loan was cancelled. GOP has requested Japanese finance for an alternative road.

(FY1993 Overseas Survey)
Delton Pass (Sta. Rita-Aritao)
Scheduled to be completed in April 1996.

(FY1994 Domestic Survey)
Dalton Pass Section
Rehabilitation works for this Section (PH-P93) is scheduled to be completed in June 1996. Engineeing services for Alternative Route of Dalton Pass Section are proposed and financial assistance under the 20th OECF loan Package is requested by the Government of the Philippines.

(FY1995 Domestic Survey)
Dalton Pass Section :
The rehabilitation works for Santa Rita-Aritao section including Dalton Pass section is going to complete on Nov., 1996. Detailed Design of the detour route for above-mentioned section is already signed for Loan Agreement as for a project of 20th OECF Loan on 30th Aug., 1995 and expected to commence the implementation early in 1996.
Mahaplag-Sogod Section :
Repairment works for Tacloban-Liloan Section including Mahaplag - Sogod Section will be requested to the Government of Japan as for a project of 21st OECF Loan.

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 314/84

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: 1982/10

9.CONSULTANT(S): Overseas Coastal Area Development Institute

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)	18,398	7,346	11,052
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: 1987.1-1989.12

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
  - ○ Partially Completed
  - ○ Implementing
  - ○ Processing
- [ ] Promoting
- [x] 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

(FY1991 Overseas Survey)
The project is likely to be revived when the financing constraints are eased, but there is no prospect of securing funds.

(FY1993 Overseas Survey)
The Port Project has not been updated yet after JICA study.

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

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
(FY1991 Overseas Survey)
(1)Technical or environmental problems.
(2)Review or new study is required.

3.PRINCIPAL SOURCE OF INFORMATION

①、②

{F/S,D/D}

和名 サンフェルナンド港整備計画

PROJECT SUMMARY (M/P)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 106/85

I. OUTLINE OF STUDY

1.COUNTRY Philippines

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

3.SECTOR
Social Infrastructu/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 1982/12

9.CONSULTANT(S)
Nippon 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
None

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 maangement 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.

(FY1991 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 (MTPIP) and the Medium-term Technical Assistance Program.

(FY1993 Overseas Survey)
Panay River Basin-Wide Flood Control:
Recommendations to the Rigional Development Council have been made for the pursuance of the detailed design of the project. The Terms of Reference for a JICA study was submitted to NEDA and JICA for possible technical assistance. The project was included in

(FY1994 Domestic Survey)
No further progress is informed for this Project.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 パナイ河流域洪水防御基本計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 107/85

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

2.NAME OF STUDY
Metro Manila Transportation Planning

3.SECTOR
Transportation/Urban Transportaion

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: 1982/7

9.CONSULTANT(S)
ALMEC 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.

(FY1993 Overseas Survey)
In 1991, the DOTC has proposed the updating of the database prepared under the study through the Metro Manila Urban Transport Integration Study (MMUTIS), also for JICA assistance. It has not been selected as it is tied up with the IBRD-assisted Urban Transport Development Project (UTDP), which the DOTC has to complete.

(FY1994 Domestic Survey)
Due to worsening traffic situation as well as movement of various transport infrastructure projects and plans such as expansion of the LRT system, urban expressways etc, the updated comprehensive urban transportation plan and effective transportation policy becomes more essential. DOTC has decided again in 1993 and 1994 to request JICA the conduct of the MMUTIS. The UTPP under world Bank had only been insufficiently completed and expencted results were not obtained.

(FY1995 Domestic Survey)
It has been requested as for a new development survey project from the viewpoints of renew the database and revision of measures for traffic problems.

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

3.PRINCIPAL SOURCE OF INFORMATION
①、②

{M/P,Basic Study,Other}

和名 マニラ首都圏都市交通計画（フェーズIおよびII）

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 203B/85

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: 1984/6

9.CONSULTANT(S): Overseas Coastal Area Development Institute

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)

		Local Cost	Foreign Cost	
M/P	1)	76,316		
	2)			
F/S	1)	13,631	5,684	7,947
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>
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

<F/S>11 berths in total are planned as follows:

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: 1986.6-1989.12

4.FEASIBILITY AND ITS ASSUMPTIONS — Feasibility: Yes

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

Conditions and Development Impacts:

<M/P><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, 5,760,000 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.
<F/S><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.
<Impact>
1) The incremental valued added arising from cargo transportation.
2) The reduction of transportation costs between Bataugas 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
  - ○ Partially 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 (5,768 million yen)

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

(FY1993 Overseas Survey)
Apr.1994 - Dec.1997 Phase I construction scheduled.

The squatter problem may cause the project to delay. The CALABARZON Integrated Regional Development Program includes this project as one of its infrastructure components.

(FY1994 Domestic Survey)
The commencement of construction works has been delayed due to the squat.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

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

和名 バタンガス港整備計画

(M/P+F/S)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 312/85

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

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

3.SECTOR: Agriculture/(Agriculture in)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: 1984/2

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
None

12.EXPENDITURE

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

II. SUMMARY OF STUDY RESULTS

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

2.PROJECT COST

(US$1,000) US$1=18P		Total Cost	Local Cost	Foreign Cost
	1)	36,555	14,333	22,222
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
1) Water Resources Development of Warig 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: 1987.1-1991.12

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
  - ◉ Partially 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).

(FY1993 Overseas Survey)
The construction works of reservoirs and irrigation facilities for Capayas Area (with a beneficial area of 750ha), a part of this Proejct, adopted by the Japanese Government as for a Grant Aid Project under the name of 'Capayas Irrigation Project' during fiscal year of 1990/91, and completed in march, 1992.
At present, NIA plans to promote to arrange various on-farm facilities of the Project. Dams and Irrigation facilities constructed by the Project are administrated by teh Provincial Irrigation Office (PIO) and Irrigators Association (IA), respectivery.
The number of beneficial peasants will be 375. Except Capayas, developmebt works for the other beneficial are (4,550ha) is planned on the period from 1995 to 2001 in CORPLAN of NIA.
After the completion of construction works of Bohor Irrigation Project(1), the irrigating area is expected to expand by means of the useage of surplus water produced by the Project(1) and the water from the basins of our own.
Therefore, the construction works of the Project(1) is carrying out prior to this project.

(FY1994 Domestic Survey)
Construction of the Phase-I is planned to complete on Dec. 1995

(FY1995 Domestic Survey)
As NIA wishes to implement this project by the 21st Yen Credit, the request is now preparing.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

(F/S,D/D)

和名 ボホール灌漑開発計画 フェーズII

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 311/85

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Asue River Basin Agricultural Development Project

3.SECTOR
Agriculture/(Agriculture in)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 River and adjoining basin including investigation from the viewpoints of technological and ecomonical adequacy.

8.DATE OF S/W 1983/1

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
None

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: 1988. -1990. 1991. -1995.

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

(Description)
Some F/S on the irrigation development in the Philippines have implemented other than this project, however they have not been realized because of the deterioration of domestic financial situation.
NIA has been hoping to implement this project but the realization has not yet been put into any shape.

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

(FY1993 Overseas Survey)
According to CORPLAN of NIA, this project is expected to be implemented from 1999 to 2005, however, the realization cannot be put into any shape without the improvement of national financial situation same as the other irrigation development projects. It is expected that this project will contribute to activate the agriculture in Panay Island with the production increase of rice, vegetables and others if this Project can be realized. The Gov't of Philippines is eager to implement this Project because one of the priority policies is to smooth out the regional differentials as announced on the Mid-Term Development Plan.

(FY1994 Domestic Survey)
No information.

(FY1995 Domestic Survey)
This project is given lower priority among the projects included in the Long Term List of NIA at this moment. Accordingly, the possibility of implementation seems to be very low.

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

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 アスエ川流域農業開発計画

[F/S,D/D]

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 318/85

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: 1984/8

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
31.46	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 - Calawag 95.7 km
Allen - Calbayog 72.9 km
Nagilian 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: 1990.1-1991.8

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 - Calawag, 9 days for Allen - Calbayog and 4 days for Nagilian 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-Calawag, 2)Allen-Calbayog, 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
- [ ] Promoting
- ○ Completed
- ◉ Partially Completed
- [ ] Delayed or Suspended
- ○ Implementing
- ○ Processing
- [ ] 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. 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 5,703 million yen) Project: Disaster prevention of Calauag - Matnog and Allen - Calbayog Section(353km) and Naguilian Road Jan.1991 - Sep.1992 Detailed design(Pavement, Bridges, drainage & disaster prevention)completed on Allen - Calbayog Section and Naguilian Road(PCI) Sep.1992 Construction commenced(scheduled to be completed in Jul.1995) Construction of Naguilian Road is in progress.
(FY1993 Overseas Survey) The proposed projects have been under implemetation as shown below.
1) Calamba-Calaung Road
Construction began in July 1991 to be completed in June 1996. Total investment cost: 1,343.2 million pesos (foreign currency 825.7 million pesos equivalent; local currecy 517.5 million pesos) Calauag-Matnog Road and Allen-Calbayog Road were dropped because of the increased cost and budget shortfalls. The application to be 19th Yen Credit is being considered for part of these roads.
2) Naguilian Road
Construction began in Sept. 1992 to be completed in March 1995. Total investment cost: 618.7 million pesos (foreign currency 534 million pesos equivalent; local currency 84.7 million pesos)

(FY1994 Domestic Survey)
(1) Lucena-Calauag Section:Rehabilitation of the section has been implemented as a part of Calamba-Calawag Road Rehabilitation Project. Rehabilitation works for the section will be completed by January 1996.
(2) Allen-Calbayag Section:Although detailed design for this section has been completed as a part of Desaster Prevention and Road Rehabi;itation Project(PH-P105), construction is not scheduled yet.

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

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

Continued on (F/S,D/D)

和名 道路防災計画ステージII

状況（要約表添付文書）

ASE PHL/S 318/85 (F/S)

Name of Study: Philippine Road Disaster Prevention Project, Stage II

Country	Philippines
Type of Study	F/S
Sector	Transportation/Road
Present Status:	Partially Completed

(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.
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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) Project: Disaster prevention of Calauag - Matnog and Allen - Calbayog Section(353km) and Naguilian Road
Jan.1991 - Sep.1992 Detailed design(Pavement, Bridges, drainage & disaster prevention)completed on Allen - Calbayog Section and Naguilian Road(PCI) Sep.1992 Construction commenced(scheduled to be completed in Jul.1995) Construction of Naguilian Road is in progress.
(FY1993 Overseas Survey) The proposed projects have been under implemetation as shown below.
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(FY1994 Domestic Survey)
(1) Lucena-Calauag Section:Rehabilitation of the section has been implemented as a part of Calamba-Calawag Road Rehabilitation Project.
Rehabilitation works for the section will be completed by January 1996.
(2) Allen-Calbayag Section:Although detailed design for this section has been completed as a part of Desaster Prevention and Road Rehabi;itation Project(PH-P105), construction is not scheduled yet.
(3) Naguilian Road:Detailed design and construction have been/are being undertaten as apart of Disaster Prevention and Road Rehabilitation project(PH-P105).The construction was commenced in September 1992 and is scheduled to be completed in August 1996.

(FY1995 Domestic Survey)
Lucena - Calauag Section
The repairment work for Calamba - Calauag Section including above is now implementing by OECF Loan (PH-P93). Segment No.1, 3 and 5 were constructed, No.4 will be constructed until Oct., 1995 and No.2A will also be constucted until Feb., 1997. However, No.2B is not commenced as yet due to the lack of fund. Allen - Calbayog Section
It is planned to request to make it a project under the 21st Yen Credit. Naguilian Road Completed on Aug., 1995.

PROJECT SUMMARY (F/S)

Compiled Mar.1988
Revised Mar.1996

ASE PHL/S 317/85

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

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

3.SECTOR: Social Infrastructu/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: 1983/10

9.CONSULTANT(S): Nippon 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: Survey of Water Quality, Soil Test

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

EIRR	FIRR
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
  - ○ Partially 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.

(FY1993 Overseas Survey)
According to National power supply program, this project will have implemented from the year of 2001 and expecting to power supply from the year of 2004, thus this project has no progress unless project will composed through the BOT.

(FY1994 Domestic Survey)
When the President Ramos visited Europe, the Italian private group offered to review the feasibility of the project and to implement the project by the BOT method, if the project is viable. Responsing this offer, the President Ramos announced to form a national Committee, the implementation Agency of which is the Pangasinan Province.
Although progress of the project for implementation is unclear, implementation by the BOT method is judged to be not easy due to the nature of the project, i.e. multipurpose project.

(FY1995 Domestic Survey)
No additional information.

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、③

和名 サンロケ多目的ダム開発計画

{F/S,D/D}

PROJECT SUMMARY (M/P+F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 204B/86

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 1985/10

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
Qualitative Analysis of Water

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 Soxano)

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

M/P	1)	813,271	Local Cost	70,514 Foreign Cost	742,757
	2)				
F/S	1)	43,678		18,573	25,105
	2)				
	3)				

3.CONTENTS OF MAJOR PROJECT(S)

<M/P>
(1) Angeles City: Construction of 13 tube wells, 3 distribution reservoir and booster pumping station
(2) Dagupan 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

<F/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

Note: EIRRs and FIRRs bellow are for 1)Angeles, 2)Dagpan, 3)Cabyao-Santa Rosa - Biniyan. EIRR and FIRR for Bayombong - Sorano are 13.5% and 4.3%.

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.
Impacts: As the direct benefit , the following impacts are expected:
- Increase in the area and population to be served.
- Continuous supply of safe water
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
- 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
  - ○ Partially Completed
  - ● Implementing
  - ○ Processing
- [ ] Promoting
- [ ] Delayed or Suspended
- [ ] Discontinued or Cancelled

(Description)
D/D was completed for Dagpan and Laoag.
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

(FY1993 Overseas Survey)
1. The projects have been included in the Medium Term Public Investment Program, the objectives of which are to provide safe and adequate water supply and sanitation services and to raise the service ratio from the present 66% to 79% of the total population.

2. The following projects are under implementation with OECF financing.
1) PCWSP-I for Dagupan and Laoag:
Total investment cost: 344.14 million pesos
(foreign currency 1,272 million yen;
local currency 26.14 million pesos)
2) PCWSP-II for Angeless City
Total investment cost: 358.07 million pesos
(foreign currency 1,094 illion yen;
local currency 84.57 million pesos)

3. Consultations with concerned local governments must be conducted during the early stage of the F/S in order to ascertain the institutional requirement of the project implementation and to avoid the problem like the Bayombong-Salano and Cabuyao-Sta. Rosa projects.

(FY1995 Domestic Survey)
No additional information.

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
①、②、④

和名 地方都市上水道整備計画

(M/P+F/S)

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 102/87

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/(Agriculture in)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 1985/11

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
None

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
US$1=20.5 Pesos	1)	51,707	17,317	34,390
	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.

(FY1991 Overseas Survey)
The project will be revived in the near future.

(FY1993 Overseas Survey)
This Project is planned to implement during the period from 1997 to 1999. Since this Project is considered as a typical example to put to an effective use of available water, NIA wishes to make it one of the model case and has requested to JICA's technical cooperation.
Similar to the other irrigation projects, the Turn-over program is applied for its maintenance and/or administration. As existing facilities were established about 20 years ago and getting very old, and due to the variety of equipments brought from various countries, it is very hard to supply their spareparts.
Additionally, as a matter of fact, the maintenance and the administration of the facilities seem to be insufficient because of the strict budgetary situations of the Government of the Philippines. Therefore, it is necessary to rehabilitate these facilities and improve present circumstances as quick as possible.

(FY1994 Domestic Survey)
The World Bank has conducted IOSP(Irrigation Operations Support Project)-1(1987-91) and is conducting IOSP-2(1993-97) for the strengthening the institutional capability of NIA and Irrigator's Associations, and also financial support to O&M costs. The Study area is also part of the target of this Project, but its financial support is enough only to cover the routine O&M cost, and the irrigation facilities in this area are left unrehabilitated.

(FY1995 Domestic Survey)
ISOP-2 makes District I, II and IV as the target areas, and they will be implemented until 1998. And the 'Water Resources Development Project (WRDP)' of the World Bank makes District II as the target area and is going to commence the implementation from 1996.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 マガットかんがいシステム維持管理強化計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 108/87

I. OUTLINE OF STUDY

1.COUNTRY Philippines

2.NAME OF STUDY
Cagayan River Basin Water Resources Development

3.SECTOR
Social Infrastructu/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 1985/8

9.CONSULTANT(S)
Nippon 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
None

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

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

3.CONTENTS OF MAJOR PROJECT(S)

Master Plan : Target year 2005
(1) Multi purpose dam scheme
Alimit : Storage volume 155 x 10*6 m3, dam height 89 m
Matuno : " 97 x 10*6 m3, " 147 m
Siffu : " 93 x 10*6 m3, " 58 m
Mallig : " 545 x 10*6 m3, " 84 m
(2) Flood control scheme
Tuguegarao dike scheme, Magapit narrow improvement cabagan dike scheme and bank erosion control scheme.
(3) Agricultural development scheme
Irrigation scheme : 14 projects
- Permanent crop land : 30,000 ha
- Pasture land : 83,000 ha
(4) Hydropower scheme
Primary : Ibulao, Tanudam, and Diduyon
Secondary (integrated with agricultural development) : Dummon, Paraman, Zinundungan

4.CONDITIONS AND DEVELOPMENT IMPACTS

[Conditions]
(1) Flood control projects were selected in order to yield flood control benefit of 10% of estimated total flood damage.
(2) Agricultural development scheme was formulated to implement all irrigation projects upto year 2005. Development of permanent crop production, livestock faming and hiland cropping was included in the Master Plan.
(3) Hydropower projects proposed by the Luzon Hydropotential Study (by JICA) were involved in the formulation of hydropower scheme.
[Developmen Impacts]
(1) Effects on regional water supply and demand balance
Realization of stable water supply and flood control project will increase productivity of agriculture, industry and service industry. Eventually it is expected that livelihood standard of inhabitants becames better.
(2) Effects on regional socio-economy
Implementation of projects will create numerous opportunity of employment and is expected to improve social security condition in the project 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.

(FY1991 Overseas Survey)
Preparations for feasiblity studies are being undertaken.

(FY1993 Overseas Survey)
Cagayan River Basin Water Resources Development:

Minor flood control works undertaken by the local fund conducted after completion of the master plan study. These include the construction of bank protection along the selected sections of Cagayan river and its tributaries.

DPWH conducted the following preparatory works for F/S
1) Core drilling survey completed in 1988
2) Hydrographic surveys completed 90%
3) Flood damage survey, occurred in 1989

Feasibility study for this project tentatively scheduled in 1998 but it deferred due to unfavorable peace and order and political instability.

The DPWH had continuously endorsed the feasibility study as one of its priorities for JICA technical assistance.

(FY1994 Domestic Survey)
DPWH highly expects that the F/S of this Project will be undertaken by the Gov't of Japan. Due to the security problem in the Study area, although the security issue is in fact improved in a high degree, the commitment has not been made yet for carrying out the F/S of the Project.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
Worsening security problems.

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 カガヤン河流域水資源開発基本計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

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: 1985/12

9.CONSULTANT(S)
Overseas Coastal Area Development Institute
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
- [ ] Promoting
- ○ Completed
- ○ Partially Completed
- [ ] Delayed or Suspended
- ● Implementing
- ○ Processing
- [ ] 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

(FY1993 Overseas Survey)
Dec.1987 ADB loan approved (US$ 43.5 million)
PPA internal cash generation (US$ 43.21 million equiv.)
Jul.1988 - Dec.1989 D/D conducted (STV Lyon Assoc. Inc.)
Sep.1991 Construction started to be completed in June 1995

Total investment cost: US$ 89.69 million pesos
Foreign currency: US$ 50.40 million (cost overrun)
Local currency : US$ 36.29 million

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

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 マニラ南港改修計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 319/87

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 1985/11

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 Sectior 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: 1989.4-1992.12

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
- [ ] Promoting
- ○ Completed
- ○ Partially Completed
- [ ] Delayed or Suspended
- ◉ Implementing
- ○ Processing
- [ ] 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 14,00) 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 - SantaRitaSection(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
Mar.1990 - Jan 1991 Detailed design (Pavement, Bridges, drainage & disaster prevention) on the Calamba - calauag Section (181km) completed (Toko Consultants) Total investment 461.7 million pesos (OECF 379.2 million, GOP82.5 million) Jun.1991 Construction commenced(scheduled to be completed in Jun.1996)]
(FY1993 Overseas Survey)
The proposed road improvement has been under implementation as show below.
1) Sta.Roasa-Aritao Road
Construction began in April 1991 to be completed in Jan. 1996. Total investment cost: 1,822.7 million pesos (foregin currency 1,093.6 million pesos equivalent; local currency 789. million pesos)
2) Calamba-Calauag Road
Construction began in July 1991 tobe completed in June 1995. Total investment cost: 1,343.2 million pesos (foreign curreycy 825.7 million pesos equivalent; local currency 517.5 million pesos)
(FY1994 Domestic Survey)
(1)Sta.Rita-Aritao Section
Construction under OECF loan(PH-P93) is scheduled to be completed by June 1996.Detailed design for Alternative Route of Dalton Pass Section is proposed for financing under the 20th OECF Loan Package.
(2)Calamba-Calauag Section
Of five contract packages, two(P-1&P-5) have been completed.Another two(P-3&P-4) are scheduled to be completed in Vanuary 1996.As for Package 2, Contract with a construction period of one year will be signed in January 1996.
(FY1995 Domestic Survey)
(1)Sta.Rita-Aritao Section
The rehabilitation works will be completed on Nov., 1996 by OECF

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
①、②、③、④

Continued on (F/S,D/D)

和名 日比友好道路・道路改善計画

状況（要約表添付文書）

ASE PHL/S 319/87 (F/S)

Name of Study: Road Improvement Project on the Pan-Philippine Highway (Philippines-Japan Friendship Highway)

Country: Philippines

Type of Study: F/S

Sector: Transportation/Road

Present Status: Implementing

(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 - SantaRitaSection(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
Mar.1990 - Jan 1991 Detailed design (Pavement, Bridges, drainage & disaster prevention) on the Calamba - calauag Section (181km) completed (Toko Consultants) Total investment 461.7 million pesos (OECF 379.2 million, GOP82.5 million) Jun.1991 Construction commenced(scheduled to be completed in Jun.1996)]
(FY1993 Overseas Survey)
The proposed road improvement has been under implementation as show below.
1) Sta.Roasa-Aritao Road
Construction began in April 1991 to be completed in Jan. 1996. Total investment cost: 1,822.7 million pesos (foregin currency 1,093.6 million pesos equivalent; local currency 789. million pesos)
2) Calamba-Calauag Road
Construction began in July 1991 tobe completed in June 1995. Total investment cost: 1,343.2 million pesos (foreign curreycy 825.7 million pesos equivalent; local currency 517.5 million pesos)
(FY1994 Domestic Survey)
(1)Sta.Rita-Aritao Section
Construction under OECF loan(PH-P93) is scheduled to be completed by June 1996.Detailed design for Alternative Route of Dalton Pass Section is proposed for financing under the 20th OECF Loan Package.
(2)Calamba-Calauag Section
Of five contract packages, two(P-1&P-5) have been completed.Another two(P-3&P-4) are scheduled to be completed in Vanuary 1996.As for Package 2, Contract with a construction period of one year will be signed in January 1996.
(FY1995 Domestic Survey)
(1)Sta.Rita-Aritao Section
The rehabilitation works will be completed on Nov., 1996 by OECF Loan (PH-P93).
(2)Calamba-Calauag Section
The equipment works are now carried on by OECF Loan (PH-P93).
Segment No.3 and 5 were constructed already. Segment No.4 will be constructed until Oct., 1995 and No.2A among the Segment No.2 will also be constructed until Feb., 1997. However, No.2B is not commenced as yet due to the lack of fund.

PROJECT SUMMARY (M/P)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 103/88

I. OUTLINE OF STUDY

1.COUNTRY Philippines

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

3.SECTOR
Agriculture/(Agriculture in)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 1986/12

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	222,150	200,350
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
- [■] 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

(FY1993 Overseas Survey)
(1) Since the impleted project design was turned over to the Provincial Government of Western Samar, there has been no further development of the project. Under the new Local Government Code, the implementation of the projects (including financing) became the responsibility of the LGU.
(2) It is being used by the local government unit of Western Samar as an economic development blueprint, purticularly with respect to planning and agricultural/rural development programs / projects / activities.

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

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、②

和名 西サマール農業総合開発計画

[M/P,Basic Study,Other]

PROJECT SUMMARY (Basic Study)

Compiled Mar.1991
Revised Mar.1996

ASE PHL/S 502/88

I. OUTLINE OF STUDY

1.COUNTRY: Philippines

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

3.SECTOR
Social Infrastructu/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: 1985/0

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 varicus development plans and studies in Metro Manila.

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

(FY1991 Overseas Survey)
No additional information.

(FY1993 Overseas Survey)
Establishment of Graphic Information Base Project of National Capital Region
Completed and updating information by the local fund.

(FY1994 Domestic Survey)
It is said to add some maps which have been sold out from a few years ago, but its detail is unknown.

(FY1995 Domestic 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
①、②、③

和名:マニラ都市基本図作成

{M/P,Basic Study,Other}

PROJECT SUMMARY (Other)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 602/88

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: 1985/5

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

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.

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

2.MAJOR REASONS FOR PRESENT STATUS:

3.PRINCIPAL SOURCE OF INFORMATION:
①、②

和名 広域森林情報分析管理計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 314/88

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 1987/2

9.CONSULTANT(S)
Nippon 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)
US$1=21 Peso

	Total Cost	Local Cost	Foreign Cost
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 - Amilung	(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
  - ○ Partially 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.

(FY1993 Overseas Survey)
On 1990, the Project was not favorably considered as for a grant aid project during annual bilateral consultation between Japan and Philippines due to the secutiry problems at the Project area.
After that, the security situations were gradually improved, however, an another problem has been closed up sa for a new snag that the price of electricity necessary to drive pumps raised up.
Most of the farmers may not be able to afford for electricity unless they get some governmental subsidy or new system to supply electricity especially for farmers just as in case of Japan.
But, it has been implemented good irrigation by pumps at the some part of area in where diesel pumps applied and is under the good IA (Irrigation Administration).
Therefore, this Project is under the study to convert into the irrigation Project utilizing pumps with diesel engine. And also small-scaled hydro0generators using the head of water level of the irrigation dams are considering.
ThisProject is included in CORPLAN of NIA for the year of 1996/1997.

(FY1994 Domestic Survey)
By a structural reform of NIA, the new National Irrigation System including pumping is studying for all over the country.

(FY1995 Domestic Survey)
No additional information.

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

3.PRINCIPAL SOURCE OF INFORMATION
①、②、③

和名 ポンプ灌漑施設維持管理改善計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/A 313/88

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/(Agriculture in)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 1987/3

9.CONSULTANT(S)
Nippon Giken Inc.
Nippon 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
Forest 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: 1988.12-1992.3

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
  - ○ Partially 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.

(FY1994 Domestic Survey)
Road rehabilitation works at two road construction sites which were damaged by the landslide because of the typhoon in Oct.1991 was implemented from Dec.1992 to Mar.1993 under the financial and engineering support of JICA follow-up system.

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
①、②

和名 トリニダッド高地農村総合開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

Compiled Mar.1990
Revised Mar.1996

ASE PHL/S 321/88

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: 1987/7

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 Agusan 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)-

(Phase I)	Cavite	Masbate	Bohol	Agusan del Norte	Total
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
- ○ Partially 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 14 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.

(FY1993 Overseas Survey)

After substantial improvement achived of the arterial road network, the thrust of the GOP development objective has somewhat shifted to regional roads, in accordance with the updated National Development Plan which aims at poverty alleviation, generation of ore productive employment, promotion of social justice and sustainable growth in rural areas.

The proposed projects are under implementation with OECF finance as follows.
Aug.1992 - Sep.1993 D/D undertaken
Apr.1994 Construction scheduled to begin
Oct.1996 Construction to be completed
Total investment cost: 841 million pesos (foreign currency 758 million pesos equivalent; local currency 83 million pesos)

(FY1994 Domestic Survey)

The construction work will be started in Dec.1994, several months behind schedule due to delay in pre-construction activities caused by imperfect pre-qualification documents submitted by bidders, detained approval of short list, change in design of pavement type, etc.
July 1992 - Sep.1993 : Detailed Design
Sep.1993 - Nov.1994 : Pre-construction Activities

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
①、②、③、④

和名 地方道路網整備計画

Continued on (F/S,D/D)

状況（要約表添付文書）

ASE PHL/S 321/88 (F/S)

Name of Study: Rural Road Network Development Project

Country: Philippines

Type of Study: F/S

Sector: Transportation/Road

Present Status: Implementing

(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.

(FY1993 Overseas Survey)

After substantial improvement achived of the arterial road network, the thrust of the GOP development objective has somewhat shifted to regional roads, in accordance with the updated National Development Plan which aims at poverty alleviation, generation of ore productive employment, promotion of social justice and sustainable growth in rural areas.

The proposed projects are under implementation with OECF finance as follows.

Aug.1992 - Sep.1993 D/D undertaken
Apr.1994 Construction scheduled to begin
Oct.1996 Construction to be completed

Total investment cost: 841 million pesos (foreign currency 758 million pesos equivalent; local currency 83 million pesos)

(FY1994 Domestic Survey)

The construction work will be started in Dec.1994, several months behind schedule due to delay in pre-construction activities caused by imperfect pre-qualification documents submitted by bidders, detained approval of short list, change in design of pavement type, etc.

July 1992 - Sep.1993 : Detailed Design
Sep.1993 - Nov.1994 : Pre-construction Activities
Dec.1994 - Feb.1997 : Construction

Total project cost : ¥5,737,000
Foreign currency : ¥5,266,000
Local currency : ¥471,000

(FY1995 Domestic Survey)

The construction works of Phase-I in four(4) provinces are carrying out. Due to the amendment of local government law. DPWH becomes only in charge of the national highways. Yen Credit has been granted for Phase-II covering 2nd class national highways in twelve(12) provinces.

PROJECT SUMMARY (M/P)

Compiled Mar.1991
Revised Mar.1996

ASE PHL/A 104/89

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 1988/2

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
Survey of the marine products markets
Survey of freshness of the marine products

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 Systen

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.
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.
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.

(FY1993 Overseas Survey)
F/S was updated by PFDA in 1993 and Submitted to NEDA-ICC for consideration and possible funding under the 19th Yen Credit Package. Based on the updated F/S, the ICC found the proposal lacking of the basic information to enable the ICC to assess the economic and financial viability of each component of the project. PFDA temporarily with drew the proposal but plans to re-submit the some in the form as required by the ICC.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

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

和名 水産物輸送システム総合計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P)

Compiled Mar.1991
Revised Mar.1996

ASE PHL/A 105/89

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 /

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

10.STUDY TEAM
No.of Members 11
Period Aug.1988-Feb.1990(19 months)

Total M/M	Japan	Field
82.41	25.50	56.91

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Additional survey on the 96 existing data

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)
The implementation program of the Small Water Impounding Management (SWIM) Projects was prepared for the next ten years period from 1991 to 2000, according to the following procedure:
(1) Total candidate projects has been 501 of which 230 projects were qualified for implementation in light with the selection criteria; i.e. those projects should be of multi-purpose, have impoundment, with dam height of not more than 30 meters, with reservoir capacity of not more than 50 MCM, etc.) and with the availability of existing studies.
(2) The 230 qualified projects were prioritized in accordance with the criteria in which the technical, economic and social/environmental aspects were included, and with other factors. Considering the other factors such as economic rate of return, even distribution over the country, etc., an implementation schedule for SWIM projects was prepared. The 118 projects will be implemented within the first five years.
(3) The total costs for the SWIM projects are estimated at 6.1 billion pesos, consisting of the implementation of the 230 projects (4.0 billion pesos), identification of new projects (0.1 billion pesos) and price contingency (2.0 billion pesos). Costs for the first five years are estimated at 2.4 billion pesos.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The project benefits will be born from irrigation, hidro-power generation, inland fishely and/or water supply. Total annual benefit amount to be born from the 230 projects is estimated at 0.6 billion pesos, of which 0.5 billion is expected to come from irrigation.
Overall economic internal rate of return (EIRR) of the 230 projects is calculated at 17.5%, when the irrigation benefit only in considered. The EIRR for first five year is 20.0% while that for second five years is 12.8%.
Other socio-economic impacts to be expected are as follows:
(1) Flood protection (peak cut of 4,900 m3/sec, which is 30% of design flood discharge)
(2) Increase in irrigation area (new irrigation area of 28,000 ha which is expected to produce 200,000 tons of paddy)
(3) Income increase of beneficiaries (annual incremental income of 14,000 pesos per household)
(4) Generation of employment opportunity (3.5 illion man-days)
(5) Watershed management effect (45,000 ha will be conserved by constructing check-dams and reforestation)

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
- [x] 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)

(FY1993 Overseas Survey)
(1) Out of the 39 selected projects, 11 were not implemented due to various reasons:
1) security problem (project located in Muslim area)
2) overlapping of irrigable service areas with existing NIA projects
3) uUnresolved right-of-way problems
4) economic non-viability due to high cost of foundation and access road required.
(2) Presently, out of the 25 projects, 10 are under construction, 2 are awaiting concurrene of contract documents by OECF, 2 are for tendering, 10 are under Tender evaluation by the DPWH-PBAC and 1 for approval of bid drawings by the BOD,DPWH. Selection criteria developed in Master Plan Study were used and will be used by the DPWH in the formulation of the program for SWIM projects.

(FY1994 Domestic Survey)
In Nov. 1994, out of 25 projects, 22 are under construction and 3 are awaiting Concurrence of contract documents by OECF.

(FY1995 Domestic Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①、②

和名 農業用小規模ため池整備計画

(M/P,Basic Study,Other)