PROJECT SUMMARY (F/S)

AFR MLI/A 302/85

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Mali

2.NAME OF STUDY
Baguineda Agricultural Development Project (Updating Study)

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Agriculture

7.OBJECTIVES OF STUDY
- Riview and update the technical and economic feasibility of the Project
- Formulate stepwize development plan
- Undertake on-the-job training of the counterpart personnel

8.DATE OF S/W Jul.1985

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

10.STUDY TEAM

No.of Members 6
Period Sep.1985-Mar.1986(7 months)

Total M/M	Japan	Field
10.95	2.93	8.02

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	44,659 (¥'000)
Contracted	42,777

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Right side area of Niger river located 30km east from Bamako, capital of Mali

2.PROJECT COST
(US$1,000)
US$1=426CFA

	Total Cost	Local Cost	Foreign Cost
1)	36,967	18,339	18,628
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Improvement of following facilities is executed in three construction stages:
1. Irrigation Canal : Main canal 41km, Secondary canal 65km
2. Kobe Syphon : 1 no.
3. Drain Canal : Main drain 14km, Secondary canal 77km
4. Main road : 4.3 km
5. Land reclamation : 3,000 ha
(including Tertiary irrigation and drainage canal)

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	13.50	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

Condition:
Benefit was estimated as the difference of agricultural and livestock production between with-project which consists of whole year irrigation and drain improvement and without-project condition.

Development Impacts:
To increase crop production, To raise farmers' living standard, To promote agro-industry

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

1.Stage 1 : Completed by Japanese grant aid(divided in 2 substages)
E/N : Substage 1 concluded in Sep.1986, 550 million Yen
Substage 2 concluded in Oct.1987, 732 million Yen
Implementation : Oct.1986 - Mar.1989

2.Stage 2 : Implemented by Japanese grant (divided in 3 substages)
E/N : Substage 1 concluded in Nov.1988, 760 million Yen
Substage 2 concluded in Jul.1989, 718 million Yen
Substage 3
Implementation : Nov.1988 - Mar.1991(Schedule)

3.Stage 3 will be executed by AFDB loan.

(FY 1991 Overseas Survey)
Rice farming is practiced over the total area of 2,530 ha in Upper and Lower Baguineda.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 バギンダ地区農業開発計画実施補完調査

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR MLI/A 303/90

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Mali

2.NAME OF STUDY
Kala Upstream Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Agriculture

7.OBJECTIVES OF STUDY
1)To review the existing irrigation system and to formulate an
agricultural development master plan for the Study area.
2)To conduct a feasibility study forcusing on

8.DATE OF S/W Mar.1989

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

10.STUDY TEAM

No.of Members 10
Period Oct.1989-Dec.1990(15 months)

Total M/M	Japan	Field
44.20	17.00	27.20

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
691000 (Water quality test, soil test)

12.EXPENDITURE

Total	187,926 (¥'000)
Contracted	177,625

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kala upstream area (north-east of Segou)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	50,358	24,309	26,049
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Land Reclamation for paddy fields : 3000ha.
2. Rehabilitation works on existing irrigation canal : 5.9km
3. Construction of main irrigation canal : 7.9km
4. Construction of secondary irrigation canals : 32.3km
5. Construction of tertiary irrigation canals : 194.1km
6. Construction of main drainage canals : 31.2km
7. Construction of secondary drainage canals : 24.8km
8. Construction of tertiary drainage canals : 193.8km
9. Construction of link roads : 600.0km
10. Construction of deep well for domestic water supply : 57 nos.
11. Construction of buildings for offices and others : 11 places

Imp. Period: .1990-.1997

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	10.00	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
1. Project works would be realized for 5 years and 3 months.
2. Project life would be of 50 years.
3. Prices of 1990 were used.
4. Exchange rate used is US$1.0 = CFA285 = 150yen.
5. Incremental benefits of crops were used for evaluation.
   Intangible benefits were not included in the benefit-side.

Development Impact:
Incremental net income per farm would be of CFA 1,177,342.

5.TECHNICAL TRANSFER
Technology transfer 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)
Under the promotion by Construction Project Consultants (Kensetsu Kikaku) as a grant project.

(FY1991 Overseas Survey)
Due to the Coup d'etat in March 1991, the report of the study was not submitted until Aug. 1991. Based on the recommendation of the report, preparation for implementation is on the way.

(FY1992 Overseas Survey)
Waiting for the answer

2.MAJOR REASONS FOR PRESENT STATUS
Unknown

3.PRINCIPAL SOURCE OF INFORMATION
①②③

和名 カラ上流域農業開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR MUS/S 301/78

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Mauritius

2.NAME OF STUDY
Beau Bassin-Port Louis Link Road

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Works

7.OBJECTIVES OF STUDY
Feasibility study of a link road between Port Louis(Capital City) and Beau Bassin

8.DATE OF S/W Aug.1977

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

10.STUDY TEAM

No.of Members 14
Period Nov.1977-Mar.1978(13 months)
Oct.1978-Dec.1978

Total M/M	Japan	Field
46.70	23.84	22.86

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Soil survey

12.EXPENDITURE

Total	89,963 (¥'000)
Contracted	71,223

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Port Louis - Beau Bassin

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	15,000	5,300	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

New Road construction Road Length = 10 km (about)
1) Construction of a new link road
2) Road class : M class (Motorway class), Dual carriage way
3) Design speed : 80 - 100 km/hr
4) Road width : m (carriage way width = 2@3.6 = 7.2m)
5) Road length : 9.4 km (main road = 7.6km Access road = 1.8 km)
6) Road reserve : To be in the old railway reserve
7) Objective:- Reduction of traffic jam on Route A1
- Construction of an alternative link road for the route A1, because it was impossible to widen the A1 due to continuous houses along the street.
- To contribute the development of an industrial area which locates in the southern port of Port Louis

Imp. Period: Jan.1980-Jun.1982

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	20.80	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions: Future traffic volume was estimated at 1982, 1987 1992 and 2002. Based on the trip number(OD survey) Base traffic, bus traffic, airport traffic and sugar traffic were estimated by trip number (OD survey) and future population. Stage construction was studied, but Package construction was adopted because of a high EIRR and possibility of inflation in Mauritius.

Development Impact : Resolution of a bottle neck and effective use of the existing road. Acceleration of development of housing estate, industrial estate and saving of transport cost.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
On the job Training to three couterparts for Feasibility Study and Road Construction.

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 detailed design was subsequently undertaken and completed in September 1989. Mauritius government applied for an OECF loan, but withdrew the application owing to the IMF conditionality.

(FY1991 Overseas Survey)
After more than ten years of suspension, the project was discontinued.

2.MAJOR REASONS FOR PRESENT STATUS
IMF recommended to postpone the lending until the country's economic conditions improve sufficiently.

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 道路建設計画

(F/S,D/D)

PROJECT SUMMARY (D/D)

AFR MUS/S 401/80

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Mauritius

2.NAME OF STUDY
Beau Bassin-Port Louis Link Road

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY D/D

6.COUNTERPART AGENCY
Ministry of Works

7.OBJECTIVES OF STUDY
Route Location Road Design Structure, Pavement and Drainege Design.

8.DATE OF S/W Aug.1977

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

10.STUDY TEAM
No.of Members 12
Period Jan.1979-Sep.1980(17 months)

Total M/M	Japan	Field
132.63	98.00	34.63

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	248,660 (¥000)
Contracted	215,170

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Beau Bassin - Port Louis

2.PROJECT COST
(US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	14,994	5,281	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Bypass Construction 4- lane Divided Road
Road Length = 9.2 km

(See the F/S sheet of this study)

Imp. Period: Jan.1980-Jun.1982

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	20.80	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Conditions : Use of old railway reserve and old railway bridge. Project life is 20 years
Development Impact : Resolution of a bottle neck and effective use of the existing road. Acceleration of development of housing estate, industrial estate and saving of transport cost. Through traffic will divert from the existing road to the project road (Bypass).

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
Seminar and practice of Traffic Survey

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
After the completion of the detailed design, Mauritius government applied for an OECF loan, but withdrew the application owing to the IMF conditionality.

(FY1991 Overseas Survey)
After more than ten years of suspension, the project was discontinued.

2.MAJOR REASONS FOR PRESENT STATUS
IMF recommended to postpone the lending until the country's economic conditions improve sufficiently.

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 道路建設計画（ボーバッサン～ポートルイス・リンクロード）

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR MUS/S 302/89

Compiled Mar.1991
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Mauritius

2.NAME OF STUDY
Port Louis City Water Supply Project

3.SECTOR
Public Utilities/Timber Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Energy, Water Resources and Postal Services

7.OBJECTIVES OF STUDY
Water Resources Development Water Transmission Facilities

8.DATE OF S/W Feb.1988

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

10.STUDY TEAM

No.of Members 10

Period Apr.1988-Jun.1989(15 months)

Total M/M	Japan	Field
66.96	16.92	50.04

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
- Geological investigation
- Laboratoory test

12.EXPENDITURE

Total	308,154 (¥'000)
Contracted	283,375

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
North West Basin of Grand River (C.A.=115.3 sq.m) and Service Area of Port Louis City

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	88,200	28,700	59,500
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
(1) Storage dam (rockfill dam, 75 m high and dam volume of 1.5 x 10^6 cg.m)
(2) Transmission facilities (2,100 m long, 800 mm diameter)
(3) Purification plant crapit filtration: capacity 30,000 cg.m/day.
(4) Construction Period 46 months
(5) International Competitive Bidding
Lot 1 Diversin Tunnel (6.4 m dia, 375 m length)
Lot 2 Dam
Lot 3 Water Supply Facilities (800 mm dia., 2.1 km transmission main and water treatment plant of 30,000 m3/day)

Imp. Period: Oct.1990-Dec.1994

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	8.70	FIRR1)	6.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The existing supply system of Port Louis City: Capital of Mauritius has no raw water storage facilities (in its resources) and suffers from water shortage in every dry season. When this project is realized, the project will solve the current water shortage problem and will meet the water demands up to year 2030. It will contribute to stabilization of the urban society and development of the economy.

1) EIRR
a) Conversion factor 0.82 b) Benefit water tariff c) Period 50 years
d) Current year 1989 e) Exchange rate US$1=Rs.13.7

2) FIRR
a) Cost construction cost + O&M b) Revenue Water tariff
c) Tariff increase 7.2% per annun

3) Loan repayability condition
a) Period 30 years b) Grace period 6 years c) Interest 2.9%

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
Technology transfer was achieved on methods for survey and planning of dam,transmission and purification facilities through joint work in the field and training in Japan.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The government of Mauritius requested Japanese assistance on D/D, and JICA undertook the detailed design study during Mar. 1990-Mar. 1992.

(FY 1991 Overseas Survey)
No additional information

2.MAJOR REASONS FOR PRESENT STATUS
GOM has strong intension to implement the project at the earliest time to cope with the severe water shortage in Port Louis City in the dry season.

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 ポートルイス市水供給計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR MUS/S 303/90

Compiled Mar.1992
Revised

I. OUTLINE OF STUDY

1.COUNTRY Mauritius

2.NAME OF STUDY
Landslide Protection Project in Port Louis

3.SECTOR
Social Infrastructures/River & Erosion Control

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Local Government

7.OBJECTIVES OF STUDY
1)Clarification of the mechanism and causes of the landslide.
2)Preparation of the long-term protection measures for the landslide.

8.DATE OF S/W .1989

9.CONSULTANT(S)
Joint Venture/
Nippon Koei Co., Ltd.
Nissaku Co., Ltd.

10.STUDY TEAM

No.of Members 9
Period Mar.1989-Nov.1990(9 months)

Total M/M	Japan	Field
61.35	14.76	46.59

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
1)Installation of surface water drain.
2)Core drilling; 3)Soil laboratory test.
4)Experimental investigation. (Construction of drainage

12.EXPENDITURE

Total	342,832 (¥'000)
Contracted	333,277

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
La Butte, Port Louis City Area about 12.5 hectre

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	17,797	3,451	14,346
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1)Steel piling work:
300mm (diameter) * 17mm (thickness) * 380 piles; 8420m
300mm (diameter) * 9mm (thickness) * 36 piles; 576 m

2)Drainage well work:
3.5m (diameter); 10 - 15m/well; 3 wells (total)
Groundwater collection borehole; 50 - 60m * 40 holes; 2100m
Drainage borehole; 50m * 4 holes; 200m

3)Horizontal borehole:
30 - 50m/hole; 1670m (total)

Imp. Period: Mar.1989-Nov.1990

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	47.70	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:
Protection measures for the long-term stabilization of the landslide are prepared with on the assumption that planned safety factor is more than 1.2 (PFs>=1.2) with taking the effects of the urgent protection measures into account.
By providing the long-term protection measures for the landslide, the project effects will be expected as direct benefits from preventing damages on buildings, securing traffic, water supply and electric supply and improving land use opportunities. Other effects are also expected in releasing risk from loss of human life, stabilizing public welfare and assuring economic activities.

5.TECHNICAL TRANSFER
Transfer knowledge was performed by training Mauritian engineers on the actural works (on the job training) and discussing at seminars held on submission of several kinds of reports at each stage to the Government. Moreover, transfer of the knowledge on landslide protection was made by inviting one of the

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 Japan is considering extending a loan of the OECF for implementing the Project.
The Government of Mauritius allocated budget for the project in the financial year from July 1989 to June 1990 with expecting execution of the OECF financing.
The Japanese Government already had a joint study meeting among the concerned four Ministries on the Project. However, the final decision is not yet made.

(FY1992 Overseas Survey)
Waiting for the answer

2.MAJOR REASONS FOR PRESENT STATUS
The final decision is not yet concluded because of the Government's intention that this project seems not to contribute directly to the industry development of Mauritius.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ポートルイス市地すべり対策計画

{F/S,D/D}

PROJECT SUMMARY (D/D)

AFR MUS/S 402/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY Mauritius

2.NAME OF STUDY
Port Louis Water Supply Project

3.SECTOR
Public Utilities/Timber Processing

4.REFERENCE NO.

5.TYPE OF STUDY D/D

6.COUNTERPART AGENCY
CWA (Central Water Authority)

7.OBJECTIVES OF STUDY
Detailed design of a dam, raw water transmission pipeline and water treatment facilities for water supply to the Port Louis city.

8.DATE OF S/W Feb.1990

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

10.STUDY TEAM
No.of Members 22
Period Mar.1990-Mar.1992(24 months)

Total M/M	Japan	Field
134.00	65.00	69.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Boring investigation; Test adit excavation
Test for construction materials

12.EXPENDITURE

Total	607,033 (¥'000)
Contracted	322,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Grand River North West river basin in Mauritius

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	102,100	6,600	72,990
2)		19,000	
3)		3,510	

3.CONTENTS OF MAJOR PROJECT(S)
(i) Lot-I: Construction of a diversion tunnel and preparatory works including a haul raod, aggregates and concrete plants, dormitories and offices.
(ii) Lot-II: Construction of a dam (rockfill dam with about 80m in height) and appurtenant structures.
(iii) Lot-III: Construction of raw water transmission pipeline (about 2 km) and water treatment facilities (30,000 cu.m/day)

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	8.70	FIRR1)	6.80
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Conditions:
Financing by a low interest loan (less than annual rate of 3%) and improvement of tariff in accordance with increase of consummer price index, etc. are required.

Development impacts:
(i) Improvement of welfare
(ii) Industrial development

5.TECHNICAL TRANSFER
- Lectures and seminars on planning and design of dams and water treatment facilities
- Counterparts participation to the study
- Overseas training in Japan

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The Government is trying to find external financing sources for the project implementation.
The Government is hoping Japanese assistance for Lot-I and Lot-II, and an AFDB loan for Lot-III.

(FY 1993 Domestic Survey)
According to an informal information from OECF, the amount of loan is too big for small GNP country such as Mauritius to accept.
It is difficult to consider new loan application since OECF is lending Yen 2 x 109 to GOM for Land Slide Project at present.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 ポートルイス市水供給計画

{F/S,D/D}

PROJECT SUMMARY (Other)

AFR NER/S 601/77

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Niger

2.NAME OF STUDY
Plan de consolidation et d`amenagement de la capacite de transport

3.SECTOR
Transportation/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY Other

6.COUNTERPART AGENCY
Ministry of Transportation

7.OBJECTIVES OF STUDY
Strengthening of transportation capacity between the capital and coastal cities of neighboring Benin

8.DATE OF S/W .0

9.CONSULTANT(S)

10.STUDY TEAM
No.of Members 8
Period Jan.1977-Apr.1977(3 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 17,813 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Niamey(the capital of Niger)and Cotonou in Benin

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
The study examined the possibility of strengthening the route between Niamey and Cotonou, which is the most important route in the development and diversification of transportation in the country. The study also examined other related requirements (e.g. construction of maintenance posts) for the execution of Japanese grant aid, and proposed the establishment of an automobile maintenance factory, among others.
(Note) Cost was not calculated.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The project will contribute to the diversification of international transportation means.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
1979 Mar. E/N of Japanese grant aid on road development (600 million yen)
1981 Mar. E/N of Japanese grant aid on transport capacity expansion (500 million yen)

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 輸送力整備増強計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR NER/A 301/83

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Niger

2.NAME OF STUDY
Amenagement hydro-agricole de la cuvette de Kourani-Baria

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Du Genie Rural au Ministere du Developpement Rural

7.OBJECTIVES OF STUDY
To judge the feasibility of this sproject considering the construction of flood prevention dike and other irrigation facilities.

8.DATE OF S/W Aug.1982

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

10.STUDY TEAM

No.of Members 10
Period Sep.1982-Jul.1983(8 months)

Total M/M	Japan	Field
47.83	24.21	23.62

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	143,811 (¥'000)
Contracted	113,685

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kourani and Baria Area Thillabery district 1,380ha

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	4,688	1,960	2,728
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The Government of Niger had newly designated 12 sites of land redclamation in the Niger river desin for attaining the self-sufficiency of food-stuff and for the raise of national living standard. This Project site is one of those sites. The Government of Niger had employed the French consultant to carry out the feasibility study on this Project area.
After finishing the study, the Government requested the African Development Bank to give a loan assistance together with the report of the study. The African Development Bank deferred the loan assistance due to the insufficiency of the contents of the report. Considering this results, the Government of Niger requested the Government of Japan to carry out the complete feasibility study. In response to this request, the Government of Japan carried out this study as part of technical ssistance. The study area locates on the major bed of the right bank of Niger river about 100km upstream from Niamey. By constructing the flood prevention dike on the rim of major bed, irrigated agriculture is to be executed on the fertile major bed.
- Project Area 1,380 ha - Flood Prevention Dike 13.5 km
- Pumping Station 2 locations - Irrigation Canal lining canal 32.4km, earth canal 38.0km
- Drainage canal 34.3km - Farm Road 39.9km
- Farm Land Consdidation 752 ha

Imp. Period: .1984-.1986

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	11.30	FIRR1)	13.50
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
[Conditions]
(1) Commission for the AfDB's loan (0.75% of loan amount) is converted into the economic price.
(2) Products of this project are assumed to be the paddy and the straw
(3) Evaluation is done for the financial analysis using fixed price as equivalent in 1992.
(4) Remaining value of the facilities is appropriated at the last year of evaluation term
(5) Reference year of evaluation is 1983. Evaluation term is 50 years from the reference year.
(6) Benefit from the Project occurs from 1985 and full benefit occurs from 1987.
[Development Impacts]
(1) Contribution to the self-sufficiency of food-stuff through increasing the agricultural production.
(2) Contribution to the raise of farmer's living standard by increasing t he farmer's income through increasing the agricultural production.
(3) Enlargement of the consumption and activation of the legional economy by increasing the income of labor wages through the facilities construction.
(4) Settlement of the farmers or preventing the migration of villagers to other place through the consdidation of agricultural and social

5.TECHNICAL TRANSFER
- OJT
- Acceptance of Trainee (1)

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
In 1984, AfDB approved a loan, and the project implementation was completed by a West German engineering firm.

(FY1991 Overseas Survey)
AfDB financed 11,730,000 UCF = 472,000 million FCFA
(1 UCF = 402,473 FCFA)

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 クラニ・バリア灌漑農業開発計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

AFR NER/A 101/89

Compiled Mar.1991
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Niger

2.NAME OF STUDY
Rehabilitation of Ouallam Area

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Ministry of Plan

7.OBJECTIVES OF STUDY
Master Plan Study

8.DATE OF S/W Jan.1987

9.CONSULTANT(S)
Construction Project Consultants
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

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

Total M/M	Japan	Field
33.90	5.94	27.96

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Landsat analyze well exgraving

12.EXPENDITURE

Total	198,830 (¥'000)
Contracted	184,498

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Ouallam prefecture (about 22,000sq.km, population 186,000)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	344,917		
US$1=120Yen	2)	104,260		

3.CONTENTS OF MAJOR PROJECT(S)
- Rehabilitation Project of the basic farm land
- Rehabilitation Project of the basic stockbreeding
- Development Project of the arid crops
- Water supply project
- Tree planting project
- Road Construction project
- Reproduction project of the breedings and live-stock transformation
- Inland Fishery project
- Fruit tree planting project

4.CONDITIONS AND DEVELOPMENT IMPACTS
The Ouallam region is situated in the Tillabery department that has 1,281,000 populations.
Up to 1960, in this region had a large green land because of a lot of rainfalls. But since 1970, the unnatural climate conditions had continued to the Ouallam region. The agricultural land had been changed to devastated land and the basic vital population has fallen owing to the several dry weather.
Considering these natural conditions, the project for the rehabilitation of the Ouallam agricultural Zone should be planned aiming at insuring the vital water supply and preventing the decline of the population.

5.TECHNICAL TRANSFER
Training of the practical use method for the supplied equipment

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The Government of Niger requested for a Japanese grant on the urgent priority project (e.g. developmnt of wells and irrigation facilities), and the project has been under implementation with Japanese assistance.

Oct.1989 - Mar.1990	Basic design study undertaken
Nov.1990	E/N signed (365 million yen)
Jul.1991	E/N signed (441 million yen)

2.MAJOR REASONS FOR PRESENT STATUS
Ouallam Prefecture is located in the front line of desertification which has been relentlessly expanding since the drought during 1973 - 1974. The population in the prefecture suffer from the on-going land degradation and the unstable and unproductive rain-fed agriculture. The Government of Niger considers that the stabilization and income improvement in rural areas is one of the major national objectives, and the implementation of the proposed project was given top priority.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ウアラム農村復興計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR NER/A 302/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Niger

2.NAME OF STUDY
Projet d'amenagement hydroagricole de la cuvette d'Ouna-Kouanza

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministere de l'agriculture et de l'Environnement

7.OBJECTIVES OF STUDY
To judge the feasibility of this project considering the construction of flood prevention dike and other irrigation facilities.

8.DATE OF S/W Apr.1987

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

10.STUDY TEAM

No.of Members 9
Period Mar.1988-Aug.1989(17 months)

Total M/M	Japan	Field
49.80	18.80	31.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
A topographical map produced by Kokusai Kougyo Co.,Ltd.

12.EXPENDITURE

Total	225,317 (¥'000)
Contracted	180,304

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Dosso and Gaya

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	62,900	29,025	33,875
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The Government of Niger is proceeding the agricultural development in the Niger river basin for attaining the self-sufficiency of food-stuff and for the raise of national living standard. The Government of Niger had executed the pre-feasibility study in 1985 for the irrigation development project in the Gaya area under the cooperation of the Government of France. Considering the results of study, the Government of Niger requested the Government of Japan to carry out the feasibility study on this Project from the three project sites selected in the Gaya area.
The Project site locates on the major bed of the right bank of the Niger river about 200km south-east from Niamey. By constructing the flood preventio dike on the rim of major bed, irrigated agriculture is to be executed on the fertile major bed.
- Project area 3,888 ha
- Flood Prevention Dike 42.1 km
- Irrigation Area 2,905 ha
- Pumping Station 10 locations
- Irrigation Canal 94.6 km
- Farm Land Consolidation 2,491 ha

Imp. Period: .1990-.1993

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	7.93	FIRR1)	3.94
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
[Conditions]
(1) Evaluation period is 50 years including construction period.
(2) Inflation is not considered for input cost and output benefit.
(3) Capital opportunity cost of 8 per cent annually is adapted
(4) Exchange rate of 1 US doller : 320 FCFA is adopted.
(5) Opportunity costs of skilled labour and unskilled labour are assumed as 1.0 and 0.5 respectively.
(6) Various conversion factors are assumed as follows;
- for normal factor : 0.92 - for consumption factor : 0.90
- for transportation factor : 0.75 - for electric power factor : 0.85
(7) Remaining value of the facilities is not considered.
[Development Impacts]
(1) Contribution to the self-sufficiency of food-stuff through increasing the agricultural production.
(2) Prevention of damage to the crops from flooding by the construction of flood prevention dike.
(3) By the above (1) and (2) farmer's income is increasing and farmer's living standard is improved.
(4) Promotion of livestock industry through increasing the by-products of agriculture and promotion of fishing industry using the former river channel in the Project area.

5.TECHNICAL TRANSFER
- Acceptance of Trainee(1)
- OJT

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
The Government of Niger has requested to the Embassy of Ivory Coast as the project by Japanese Grant Aid in 1989.
The Government of Niger requested it as second priority of projects by Japanese Aid to realize rapidly.
The contents of request are as follows:

Project Area	874 ha
Irrigation Area	569 ha
Embankment	7.9 km
Pump Station	2 nos.
Irrigation Canal	24 km
Drainage Canal	29 km
Power Transmission Line	30 km

The amount will be 1.5 billion Yen.

(FY1992 Overseas Surbey)
Waiting for the answer.

2.MAJOR REASONS FOR PRESENT STATUS
- The relation between KR Aid and Other Aid
- The difficulty of an assistance system in French Area
- Paddy production mainly

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ウナ・クワンザ農業水利整備計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR NGA/A 301/77

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Nigeria

2.NAME OF STUDY
Agricultural Development Projects in Imo and Bendel States

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Agriculture

7.OBJECTIVES OF STUDY
Formulation of Agricultural Development Project in Imo and Bendel States

8.DATE OF S/W .0

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

10.STUDY TEAM

No.of Members 9
Period Nov.1976-Jun.1977(8 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	93,664 (¥'000)
Contracted	76,101

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Suburb of Oweri City in Imo State (2,600ha) and Auch in Bendel state (2,850ha)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	35,771		
2)	36,213		
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Oweri Project	Auch Project
Paddy Area Development(ha)	2,100	2,100
Intake (Nos., capacity)	1 nos. 3.0cu.m/sec	1 nos. 1.5cu.m/sec
Irrigation canal length(km)	297.4	302.4
Drainage canal length(km)	136	136.8
Rice mill(Unit/Cap.)	3 Units 1.5t/ea	3 Units 1.5t/ea

Imp. Period: Oct.1977-Dec.1982

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	12.00	FIRR1)
EIRR2)	7.10	FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

Condition:
Project benefit is estimated based on the net crop production benefit derived from the difference of net benefit between with and without project conditions.

Impacts:
1.Increase of agricultural production
2.Increase of employment opportunities
3.Contribution to the regional economy

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
No information is available.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 イモ州およびベンデル州農業開発計画

(F/S,D/D)

PROJECT SUMMARY (M/P)

AFR NGA/S 101/81

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Nigeria

2.NAME OF STUDY
New Ocean Terminal Project

3.SECTOR
Transportation/Port

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Nigerian Ports Authority

7.OBJECTIVES OF STUDY
Locating of the new port and study on the optional scale of port develpment

8.DATE OF S/W Oct.1977

9.CONSULTANT(S)
Overseas Coastal Area Development Institute of Ja
Kokusai Kougyo Co., Ltd.
Pacific Consultants International

10.STUDY TEAM

No.of Members 16
Period Jan.1978-Jan.1982(48 months)

Total M/M	Japan	Field
148.15	87.73	60.42

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	544,370 (¥'000)
Contracted	413,697

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Coast of Cross River Province and Lagos

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	1,093,800		
2)	882,800		

3.CONTENTS OF MAJOR PROJECT(S)
2 alternative locations for the New Ocean Terminal were identified, viz, 1) Lagos and 2) Eastern Coast (Cross River). The proposed port at Lagos is an excavated type of 1 entry 3 divergent channels, with commercial and industrial function, equipped with industrial and urban facilities. Target year is 2000.
Excavated Port : 1900ha (land 973ha, water 927ha)
Facilities : 64 berths for commerce, 26 berths for industry
Industrial estate : 2340ha, urban estate : 2900ha
Planned population : 20,000 Breakwater, rail, roads

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development Impacts:
-alleviates present congestion at Lagos port
-meets increasing demand in the future
-streamlines freight distribution

5.TECHNICAL TRANSFER
Training counterpart on the methodologies of natural conditions survey and port planning etc.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
No information is available.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 新港建設計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (M/P+F/S)

AFR NGA/S 201B/90

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Nigeria

2.NAME OF STUDY
Groundwater Development in Sokoto State

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

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

6.COUNTERPART AGENCY
Federal Department of Water Resources (FDWR), Sokoto-Rima River Basin Development Authority (SRRDA), Sokoto State Water Board

7.OBJECTIVES OF STUDY
-To evaluate groundwater potential in whole Sokoto State
-To make a plan of water supply for middle to large scale villages (47 villages)

8.DATE OF S/W Feb.1988

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

10.STUDY TEAM
No.of Members 10
Period Mar.1988-Jun.1990(27 months)

Total M/M	Japan	Field
99.07	37.30	61.77

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
-12 numbers of test well consruction
-Construction of a model water supply system

12.EXPENDITURE

Total	559,343 (¥'000)
Contracted	479,402

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Whole area of Sokoto State (100,000 sq.km) involving 47 candidate villages for water supply planning<M/P>
47 sites of middle to large scale villages in Sokoto State<F/S>

2.PROJECT COST (US$1,000)

		Local Cost	Foreign Cost	
M/P	1)	3,432	8	3,424
	2)			
F/S	1)	6,202	17	
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
<M/P> 1) About 50% each of the area concerned consists of sedimentary formations and outcrop of the basement rocks, among which older sedimentary area and basement rock area have been regarded as difficult areas for groundwater development. Therefore, it is desirable to study the hydrogeological structure and evaluate the groundwater pontential covering whole area of Sokoto State.
2) The water supply system with a source of groundwater should be planned for 47 candidate sites of middle to large scale villages. The types of the supply system should be in accordance with groundwater potential and type/dimension of the villages.
3) Water supply facility is divided into following three types (ground water potential and type/dimension of villages)
A. Semi-urban type: Simple water supply facility consists of mortorized pumping facility well, water tank, supply piping and public hydrant
B.Rural type: construction of plural hand pumping C.Complex type: A + B.
<F/S>- The water supply system in accordance with groundwater potential and the type/scale of the villages are to be constructed in 47 candiate villages. The project goal is not only the system construction,but also to establish the management system for the operation and maintenance.
- Among 47 villages, the immediate implementation for the 20 higher priority villages is under consideration. The 15 water supply systems with motorized pumping facility are planned in high groundwater potential area, and the plural hand pump facilities are planned in 8 villages where groundwater potential is rather low. The project cost for 20-village system construction is estimated to be US$6,202,900.

Imp. Period: Jul.1992-Jun.1994

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

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

Conditions and Development Impacts:
<M/P> Realization of the plan and maintenance of the facilities should be handled by Socoto State Water Board. Improving of living basis of the villages contribute to development of the industries in the state.
<F/S>- It had been believed that the groundwater development was rather difficult in the basement rock area. However, it has been revealed that the appropriate hydrogeological survey must make groundwater development possible.

- The SSWB is responsible for both construction and maintenance of water supply system for rural area under regulation of the Sokoto State. However, since many of the system remain not functioning due to shortage of manpower and budget, it is recommended to introduce the self-maintaining method by the community of beneficiary.
- By construction of water supply systems in 20 villages, nearly 150 thousand inhabitants can obtain safe and stable drinking water.

5.TECHNICAL TRANSFER
1)Methodology on groundwater development survey especially for the area of basement rock. 2)Data acquisition and analysis on geophysical prospecting method. 3)Suitable designing of water supply system for varieties of topographic condition an village type. 4)Methodology on self D/M undertaken by association of beneficiary.

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 application of Japan's Grant Aid System has been officially requested for the implementaion scheme of 20 higher priority villages, in December 1990.
- In response to the request, Japanese Government decided to conduct the Basic Design Study.
- The site study was conducted from Sep. 8 to Oct. 7, 1991.
- The Basic Design Study Report was finalized by the end of January 1992.
- 1992.6.15 E/N signed.(641 million yen)
- 1992.8 made a contract of consultant service
- 1992.12 made a construction contract
- 1993.1 ratified
- 1993.3 extension of contract
- 1993.4 construction preparation at site
- 1993.5 started construction work
- 1994.1 scheduled to be completed

Scoto State was divided into two states (Scoto and Kebi), 12 villages among 20 located in Socoto State belong to this D/D and SV, and rest of 8 villages in Kebi State need re-study of Basic Design.

(FY1992 Overseas Survey)
Waiting for the answer

2.MAJOR REASONS FOR PRESENT STATUS
The SSWB is responsible for water supply system construction and maintenance for both of urban area and semi-urban area, but because of shortage of the budget, the construction of semi-urban system has not been implemented for these several years.
<Addifional info>
- Small villages under 500 inhabitants have hand pumping wells and large cities in the state have water supply facilities but middle and large scale of villages (1000-23,000 inhabitants) were almost ignored.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 北部地下水開発計画

{M/P+F/S}

PROJECT SUMMARY (M/P)

AFR RWA/S 101/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Rwanda

2.NAME OF STUDY
Rural Water Supply Project in the Eastern Region

3.SECTOR
Public Utilities/Timber Processing

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Directorate General of Water, Minstry of Public Works and Energy (MINITRAPEE)

7.OBJECTIVES OF STUDY
Domestic water supply

8.DATE OF S/W Jan.1984

9.CONSULTANT(S)
Chuo Kaihatsu Cor.

10.STUDY TEAM

No.of Members 11
Period Oct.1984-Jul.1986(22 months)

Total M/M	Japan	Field
59.50	3.50	56.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	278,112 (¥'000)
Contracted	209,968

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kibungo Prefecture in the eastern part of Rwanda(2.666sq.km)
Kibungo Prefecture in the eastern part of Rwanda(2.666sq.km, population of 433,000 in 1988)

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	5,902	2,631	
2)			

3.CONTENTS OF MAJOR PROJECT(S)
- Deep wells 186 sites
- Rainwater storage facilities 12 sites
- Repair shop for well excavation and maintenance equipment

4.CONDITIONS AND DEVELOPMENT IMPACTS
Prevention of water borne disease through supply of safe, clean water to villages in eastern Rwanda(Kibungu), and elimination of severe labor burden required in transporting domestic water from distant sources. It is also anticipated that the project will promote other groundwater development throughout the country.

5.TECHNICAL TRANSFER
1) OJT training of local personnel in seismic prospecting;2) Training course(2 persons) in operation of drilling equipment; 3) Supply and instruction in operation of well excavation (1 unit) and manual pump(10units) equipment

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
This was the first project of groundwater development in the country. Seismic prospecting technology was appreciated by the local personnel. Based on the study, a Japanese grant was approved for project implementation.
Dec. 1986 E/N (400 million yen)
Jul. 1987 E/N (178 million yen)

(FY1991 Overseas Survey)
The project was integrated in the 3rd Economic, Social and Cultural Development Plan (1982 - 1986). It was also integrated in the sector strategies (Food, Potable Water and Health) in 1988.
The project was divided into three phases, of which Phase I was implemented. Only basic designs have been completed for the remaining two phases (Phases II and III).
Compared with other regions, the eastern region is more disadvantaged in infrastructure for water resource development. The project is assigned high priority in relation to the objectives in the sphere of potable water and health during the 2nd United Nations Development Decade.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 東部生活用水開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR RWA/S 301/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY Rwanda

2.NAME OF STUDY
Rural Water Supply Project in the Eastern Region (Phase 3)

3.SECTOR
Social Infrastructures/Water Resource Development

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Directorate General of Water, Ministry of Public Works, Energy and Water (MINITRAPEE)

7.OBJECTIVES OF STUDY
To establish a manster plan for water supply and analyze the optimism water supply system.

8.DATE OF S/W Dec.1988

9.CONSULTANT(S)
Pacific Consultants International

10.STUDY TEAM

No.of Members

Period Dec.1988-Jan.1992(37 months)

Total M/M	Japan	Field
65.50	22.50	43.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	370,797 (¥'000)
Contracted	266,000

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kibungo Prefecture in the eastern part of Rwanda(2.666sq.km, population of 433,000 in 1988)

2.PROJECT COST

(US$1,000) US$1=128RFr		Total Cost	Local Cost	Foreign Cost
	1)	40,750	24,450	16,300
	2)	22,120	13,272	8,848
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

1.Basic Plan
System 1: Piped water supply system with treatment facilities and public standpipes(2 sites)
System 2: Small-scale piped water supply system with pump facilities and public standpipes (8 sites)
System 3: Shallow wells with manual pumps(477 wells)
System 4: Rainwater harvesting (for 8,351 families)

2.Priority Scheme
System 1: Muhazi and Sake
System 2: Kayonza-1, Kayonza-2 and Kabarndo
System 3: 75 Priority-A shallow wells and 153 Priority-B shallow wells

In addition to the above, the following institutional development measures are recommended: 1) Technical management and essential maintenance of Systems 1 and 2 to be done by ELECTROGAZ, 2) Strengthening of MINITRAPEE's Kibungo Office, 3) Measures for environmental conservation, and 4) Strengthening of the education program for residents.

Imp. Period: .1993-.2000

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

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

Conditions and Development Impacts:

Conditions: From financial, economic and social points of view, it would be rather difficult to implement the entire Basic Plan by the year 2000. However, the implementation of the projects included in the Priority Plan are judged possible, and the early implementation is recommended.

Development Impacts:
1) Increase of service population: The ratio of service population will increase from 24.2% of the total population in 1988 to 69.9% in 2000 if the priority scheme is implemented (the implementation of the entire Basic Plan would raise the ratio to 100%); 2) Improvement of public health and environmental sanitation(decreased morbidity and mortality rates of water-borne diseases like malaria and diarrhea); 3) Decreased labor for drawing water from marshes and rivers; 4) Economic benefits accruing from utilizing the labor released from water drawing for agriculture and other productive activities; 5) Increased awareness of the local population in community development and 6) Establishment of a self-supporting system for groundwater development.

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The Project was divided into three phases.
The Phase I projects (71 hand pump well and 1 small scale water supply system without treatment facilities) were implemented by the Japanese Grant Aid.
The Phase II was scheduled to be realized by the Japanese Grant Aid, however, it was postponed due to the political instablity.
The Phase III will be implemented after execution of phase II.

(FY 1993 Domestic Survey)
The realization of the Project is still anxious due to continuation of political instability. Recentry political condition has been more worse suffered from refugee from Burundi caused by the tribe struggle.

2.MAJOR REASONS FOR PRESENT STATUS
From the invasion of refugees from Uganda in October 1990, the political situation is unstable. In January 1993, civil war between tribes killed 300 person.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 東部生活用水開発計画 (Phase 3)

(F/S,D/D)

PROJECT SUMMARY (Basic Study)

AFR SEN/S 501/78

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Senegal

2.NAME OF STUDY
L`operation de dressage de la carte photographique au moyen de la projection orthographique pour le projet de consruction de la ligne de chemin de Faleme

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
Ministere des Travaux Publics de L'urbanisme des Transports

7.OBJECTIVES OF STUDY

8.DATE OF S/W Jul.1977

9.CONSULTANT(S)
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

No.of Members 14
Period Jan.1978-Mar.1978(3 months)

Total M/M	Japan	Field
39.80	14.60	25.20

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	175,302 (¥000)
Contracted	96,411

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Tambacounda - Koudekourou

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
The study prepared topographic aerophoto maps (scale:1/10,000) over the area of 250 sq.km, which will be used to plan the construction of a new railway line between Tambacounda and Faleme) to transport iron ores from the iron mine in Faleme now under development.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The purpose of this project is to propare aeronautical maps. This map will be utilized when F/S is practiced.

5.TECHNICAL TRANSFER
1) On-the-job training for counterparts
2) Participation of the counterparts in the JICA training program

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(FY 1991 Overseas Survey)
The areonautical maps were provided to "Societe des mines de fer du senegal oriental(MIFERSO)". It is reported that the French team working on the mining development used the aerophoto maps during their feasibility study.
By utilizing the map, a report was being prepared during Jan.-March of 1992 in order to obtain financing from the Trade and Development Programme of the United States Government. When the feasibility is confirmed by the study, the Government of Senegal will request a loan from the World Bank.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ファレメ鉄道建設計画に関する写真図作成

(M/P,Basic Study,Other)

PROJECT SUMMARY (F/S)

AFR SEN/S 301/80

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Senegal

2.NAME OF STUDY
Fleet Expansion Program

3.SECTOR
Transportation/Marine Transportation & Ships

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Equipment

7.OBJECTIVES OF STUDY
Examination of technical and economic feasibility on the purchase and operation of multipurpose vessels

8.DATE OF S/W .0

9.CONSULTANT(S)
Japan Maritime Research Institute

10.STUDY TEAM

No.of Members 7
Period Jul.1980-Dec.1980(5 months)

Total M/M	Japan	Field
9.04	6.37	2.67

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	26,623 (¥'000)
Contracted	16,230

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Compagnie Senegalaise de Navigation Maritime (COSENAM)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	23,946		
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
The study examined the purchase and operation of two freight vessels by the national shipping company (COSENAM, established in October 1979). The fleet will travel between Dakar and France and Belgium (18 trips per annum).
- Multi-purpose vessels of 9,000DWT each (capacity of shipping 326 containers)
*The a/m cost is for Plan B.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)		FIRR1)	7.32
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
The specifications of vessels proposed by the Senegalese side (Alternative A) would cost 2,950 million yen per vessel with lower IRR of 5.89%. The revised plan (Alternative B) would cost 2,700 million yen per vessel with higher IRR of 7.32%.

The establishment and operation of the national fleet will contribute to the balance of payments improvement. Most of the West African countries are trying to develop national shipping fleets, which are important both economically and politically.

5.TECHNICAL TRANSFER
unknown

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 study was originally undertaken for yen credit application, but the attempt was subsequently discontinued.

(FY1991 Overseas Survey)
Counterparts at CONSENAM at the time of the study were transfered to other departments. No information was available.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 船舶増強計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR SEN/A 301/86

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Senegal

2.NAME OF STUDY
Projet de developpement rural de petite envergure et de l`etude experimentale du developpement agricole (Thiago-Guiers)

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Plan and Cooperation
Ministry of Rural Development

7.OBJECTIVES OF STUDY

8.DATE OF S/W .0

9.CONSULTANT(S)
Taiyo Consultants Co., Ltd.
Chuo Kaihatsu International Corp.

Japan Engineering Consultants Co., Ltd.

10.STUDY TEAM

No.of Members 9
Period Jan.1986-Jan.1987(12 months)

Total M/M	Japan	Field
63.22	12.60	50.62

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

12.EXPENDITURE

Total	247,995 (¥'000)
Contracted	227,661

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
On the River Basin of Senegal which is in the northern part of the country. In the suburb of the city Richaro-Toll which is 450km far from Dakar.

2.PROJECT COST
(US$1,000)
US$1=330Fcta in 1986

	Total Cost	Local Cost	Foreign Cost
1)	3,380	900	2,480
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Agricultural land reclamation----------200ha
Facilities for irrigation and drainage ----200ha
Construction of a bridge----------1 unit on 800m
Rice mill, Public hall, and warehouse------1 unit each

Imp. Period: .1988-.1989

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

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

Conditions and Development Impacts:
Conditions:
Since the Manantali Dam and Diama Dam were constructed on the upstream and downstream respectively of the River Senegal, the agriculture on the River Basin does not depend on flooding of the River. All the irrigation water is provided by pumps.

Benefit from the project:
The proposed project is to develop agriculture in the area of sandy soils which is widely found on the Senegal River Basin. Through implementation of the project, extension of irrigated agriculture, area development and promotion of employment are expected. The project will also provide a model of agriculture in the semi-arid areas.

5.TECHNICAL TRANSFER
- Acceptance of one trainee on in-service training in Japan.

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
Progress:
The project was submitted for the Japanese Grant Program, immediately after the completion of F/S. The basic design survey was carried out by JICA in February 1988, and the project was implemented in two phases.
1988.9.16 Phase I E/N 649million yen
1989.7.3 Phase II E/N 408million yen

(FY 1991 Overseas Survey)
After the study, the project was included in the National Development Plan. Because of the budgetary constraints, the Government requested the Japanese grant for the project implementation.

2.MAJOR REASONS FOR PRESENT STATUS
The project was accepted as a good one to help alleviate the hunger in Africa and to introduce the advanced agriculture with irrigation by using water reservoirs which was constructed recently.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 小規模農村開発計画

{F/S,D/D}

PROJECT SUMMARY (Basic Study)

AFR SEN/A 501/90

Compiled Mar.1992
Revised

I. OUTLINE OF STUDY

1.COUNTRY Senegal

2.NAME OF STUDY
Agricultural Verification Study

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
Ministry of Plan and Cooperation
Ministry of Rural Development

7.OBJECTIVES OF STUDY
Collection & Analysis of data offered through the study at the agricultural verification farm on semiarid agriculture

8.DATE OF S/W Oct.1985

9.CONSULTANT(S)
Taiyo Consultants Co., Ltd.
Chuo Kaihatsu Cor.
Hokkaido Engineering Consultants Co., Ltd.
Nippon Giken Inc.

10.STUDY TEAM
No.of Members 11
Period Jun.1986-Feb.1991(57 months)

Total M/M	Japan	Field
217.36	25.83	191.53

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Soil Analysis

12.EXPENDITURE

Total	867,289 (¥'000)
Contracted	823,574

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The outskirts of Richard-Toll city located in Senegal River Basin, 450km north from Dakar

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
Execution of verification study on agricultural production techniques and irrigated farm-land managing techniques at the verification farm of 5.8ha located on semiarid area in the West Africa. The agricultural production techniques consist of cultivation system, rice cultivation by irrigation, cultivation of legumes and vegetables, tuber crops and forrage crops.
The irrigated farm-land managing techniques consist of water management and irrigation, mechanization, protection of agriculture and cooperative group.

4.CONDITIONS AND DEVELOPMENT IMPACTS
The agriculture in Senegal River Basin has transferred from flood irrigation to pump irrigation due to completion of Manantali Dam and Diama Dam.
Extention of irrigated agriculture and rural developemnt, and acceleration of employement is expected due to execution of agricultural development project at sandy area in Senegal River Basin. The project will be a model of agriculture in semiarid area.

5.TECHNICAL TRANSFER
1)Trainee: 4 persons; and 2)The result of four years' execution of the project especially agricultural production techniques at sandy area, has been extended to the target area

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
(1) The farm was transfered to the SAED in May 1990, and is now functioning as one of the SAED Demonstration Farms. Activities are jointly managed by SAED, ISRA and PNVA.
ISRA: Comparison of 8 rice varieties and seed multiplication; study of red rice and trials of 8 varieties
PNVA: Trials of Vietnamese varieties; variety comparison of maize, sorghum, millet, cowpea, cotton, groundnut, etc.
SAED: Demonstration of agricultural machines and farming methods; training of extension workers and key farmers
(2) Based on the findings of this project, a Japanese grant financed the small-scale rural development project.
(FY1991 Overseas Survey)
The following projects have been implemented.
1. Increase of agricultural productivity
   (1) application of an early germinative variety (rice)
   (2) Test culture of a rainy season variety (vegetable)
   (3) 3 to 3.5 tons of ground nuts cultivation as an advance cultivation in the tomato farm
2. The control of the cultivated farm
   (1) The control of the adequate water circulation achieved due to the training of waterway administrators
   (2) The cultivation operation plan is conducted and applicated
   (3) The efficient operation of equipment
3. Problems: Lack of Japanese spare parts
4. Notes: 2 JOVC volunteers are working in the SAED

2.MAJOR REASONS FOR PRESENT STATUS
The result of the project was highly appreciated by the government.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 農業実証調査

{M/P,Basic Study,Other}

PROJECT SUMMARY (Basic Study)

AFR SEN/S 502/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY Senegal

2.NAME OF STUDY
Mapping Project in Western Senegal

3.SECTOR
Social Infrastructures/Survey & Mapping

4.REFERENCE NO.

5.TYPE OF STUDY Basic Study

6.COUNTERPART AGENCY
Direction des Travaux Géographiques et Cartographiques (DTGC)

7.OBJECTIVES OF STUDY
To prepare the 1:50,000 base maps covering an area of approximately 25,500 sq.km in Western Senegal.

8.DATE OF S/W Aug.1988

9.CONSULTANT(S)
International Engineering Consultants Association
Kokusai Kougyo Co., Ltd.

10.STUDY TEAM

No.of Members 16
Period Feb.1989-Dec.1991(22 months)

Total M/M	Japan	Field
156.33	20.39	135.94

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Aerial photography
IGN France International

12.EXPENDITURE

Total	843,376 (¥'000)
Contracted	793,708

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Western Senegal

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)
1) 1:60,000 aerial photography covering 25,500 sq.km
2) 1:50,000 national base maps covering 25,500 sq.km

4.CONDITIONS AND DEVELOPMENT IMPACTS
The Western parts of Senegal located along the coast of the Atlantic Ocean have high potential for development and therefore the region is designated as a priority area in the Seventh National Development Plan. In order to pursue their efforts most efficiency, the National base maps are urgently needed.

5.TECHNICAL TRANSFER
Through the execution of the study, transfer of technology has benn realized to the DTGC counterparts in the whole aspect of the study.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The maps were published and are being used in development projects as shown below.
1)Basic study for the Irrigation Improvement Plan of Northeast Tebi,St.Louis City.
(JICA - OCEAN Consultant Agency)
2)The Metalliferous Vein study of the phoshate minerals in the western area of TIVAOUNE.
(TRADING FIRM)
3)Prevention of Salt Damages in the Southwestern area of KAOLAK
(Study on Field Development) (TRADING FIRM)

(FY1992 Overseas Survey)
The maps of scale 1:50,000 were in use for the following studies in the national development plan.
1. different phases of the Cayor Canal Project
2. reafforestation and forestation
3. studies for tourism development, development studies
4. military manoeuvers for the National Force

All of the maps and other information provided by the project are stocked in "The Document Bank".

2.MAJOR REASONS FOR PRESENT STATUS
The national base maps of scale 1:50,000 are prepared for the first time in the Western Senegal.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 西部地域地形図作成

(M/P,Basic Study,Other)

PROJECT SUMMARY (F/S)

AFR SLE/S 301/80

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Sierra Leone

2.NAME OF STUDY
Mekeni-Kamakwie Road Project

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Public Works

7.OBJECTIVES OF STUDY
Road Improvement Project

8.DATE OF S/W Mar.1979

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

10.STUDY TEAM

No.of Members 6
Period Aug.1979-May.1980(9 months)

Total M/M	Japan	Field
39.90	22.10	17.80

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographical survey : Aè 550,000
Geological Survey : Aè 1,000,000

12.EXPENDITURE

Total	103,538 (¥'000)
Contracted	92,527

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Makeni to Kamakui (76.3 km)

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	15,858	1,395	
2)	16,889	4,684	
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Projects:
Local Road (2 lanes, surface dressing)
Bridges (normal bridges : pre-tension PC girder bridge)
Mabore Bridge : post-tension PC girder bridge)
Box Culverts : (Height : 5 to 10 ft., Width : 5 to 13 ft.)
Traffic Control Facilities : at 180 points
Scale:
Design Speed : 80 km/h
Section Length : 76.3 km
Junctions, Bus Stops, Parking Lane, Road Markings, Signs, Safety Fences
Note: Cost 1) is for Plan A as explained below and Cost 2) is for Plan B.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No		
	EIRR1)	FIRR1)
	EIRR2)	FIRR2)
	EIRR3)	FIRR3)

Conditions and Development Impacts:
Plan A : The existing road improved as a Class 1 road under the Sierra Leonean highway standards; all structures such as bridges and culverts to be newly constructed.
Plan B : Certain sections improved as Class 2 roads in the first stage and total length of road made Class 1 ten years later (construction in stages) - only Mabore Bridge to be included in the second stage

Construction of a two-lane highway will lead to mitigation of regional economic imbalance, slowing down of the influx of population into cities, saving of foreign currency (contribution towards attainment of agriculture self-sufficiency in Sierra Leone) and inducement of possibility for regional economic development in cooperation with neighbouring countries.

5.TECHNICAL TRANSFER
1) OJT : Explanation of project planning of roads and bridges in Japan and of the procedure for reception of Japanese aid
2) Reception of Trainees : Lectures of road and bridge (public facilities) project

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
The internal rates of return for the proposed road were in the range of 14.4-15.2%. Other major trunk roads with rates higher than 15% were given priorities, and implemented by the funds from the World Bank and EEC. The proposed road has the next highest priority. The Govenment wishes to have the review of the F/S and the execution of the detailed design study.

(FY1991 Overseas Survey)
In June 1989, Japanese grant was given for the provision of road construction equipment(327 million yen).

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 道路建設計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR SLE/A 301/83

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Sierra Leone

2.NAME OF STUDY
Rhombe Swamp Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Agriculture and Forestry

7.OBJECTIVES OF STUDY
To formulate agriculture development plan with introduction of double cropping of paddy.

8.DATE OF S/W Jul.1982

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

10.STUDY TEAM

No.of Members 51
Period Aug.1982-Oct.1983(23 months)

Total M/M	Japan	Field
39.57	12.13	27.44

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	205,225 (¥'000)
Contracted	159,812

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Northern Gbenti, Western Sierra Leone
(60Km from capital, population 7,000, Area 24,000ha)

2.PROJECT COST
(US$1,000)
US$1=2.4Le. in 1983

	Total Cost	Local Cost	Foreign Cost
1)	11,731	1,997	9,734
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
The Gbenti North Area (approx. 1,300 ha) was formulated as a first phase development project within 9,300 ha of the swampy area of Rhambe Agricultural Development Project convering 24,000 ha of total area.

Irrigation area : 1,300 ha
Meter gates : 2
Irrigation pumps : 16
Canal : 13.3 km
Syphons : 8
Road : 13km

Imp. Period: .1985-.1989

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)	11.40	FIRR1)	11.50
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
This development project is a pilot project for development project of the whole region.
It will also help in keeping the residents from leaving the area.
The proposed facilities for the pilot project would be one of a component for future full scale agricultural development plan.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
- Accept trainees (2)
- Provide machinery and instruction on its use, observation of water volume and weather
- OJT (survey on water supply, irrigation, drainage, soil, topography)

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 applied to an AfDB loan, but the Bank did not approve the application because of the debt arrears.

(FY1991 Overseas Survey)
The study report led to the technical cooperation from 1985 to 1991, although the cooperation was not exactly along the lines suggested by the report. As of 1992, the Government still hopes to request for Japan's aid on a D/D study and its implementation.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①③

和名 ロンペ沼沢地農業開発計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR SWZ/S 301/80

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Swaziland

2.NAME OF STUDY
New International Airport Construction Project

3.SECTOR
Transportation/Air Transportaion & Airport

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Civil Aviation Branch, Ministry of Works, Power and Communications

7.OBJECTIVES OF STUDY
To examine technical, economic and financial feasibility of airport development

8.DATE OF S/W Jul.1979

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

10.STUDY TEAM

No.of Members 11
Period Oct.1979-Mar.1980(5 months)

Total M/M	Japan	Field
26.24	20.17	6.07

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	76,637 (¥'000)
Contracted	64,343

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Sikupe 75 km north of national capital

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	28,332	8,630	
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

Contents	Facility size/quantity
Runway	2,450 m x 45 m
Apron	24,000 sq.m
Terminal Bldg.	6,700 sq.m
Navaids and communications	CAT I total system
Utilities (power, water, sewer)	Total system
Access road	6.5 km long (7.4 m wide)

Imp. Period: Jan.1981-Dec.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	17.40	FIRR1)	1.40
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Premises; 1) Ultimately targetted for the year 2005;
2) Forecast demand of 303,000/895,000 passengers and 821/1,643 cargo tonnage in the year 1995/2005 for Phase I/II;
3) Due to difficulty in expanding existing airport, new airport is to be constructed at a new site.

Effects; 1) Enhance aircraft operation;
2) Increase in foreign exchange earning;
3) Increase in employment opportunities.

5.TECHNICAL TRANSFER
OJT : Familiarized counterpart officials with economic analysis procedures.

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)
10 years of blank after the suspension of the project seems to have decreased the value of the study findings.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 新国際空港建設計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

AFR TZA/S 101/76

Compiled Mar.1986
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Natural Soda Development in Lake Natron and Related Transportation Facilities

3.SECTOR
Transportation/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Ministry of Water Resources and Energy

7.OBJECTIVES OF STUDY
Reexamination of natural soda development and identification of transportation alternatives

8.DATE OF S/W .0

9.CONSULTANT(S)
International Development Center of Japan

10.STUDY TEAM

No.of Members 22
Period Jul.1976-Aug.1976(1 months)

Total M/M	Japan	Field
45.00	45.00	

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	88,439 (¥'000)
Contracted	53,634

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
the distance between Lake Natron (150km northwest of Arusha) and Port Tanga

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	318,600		
2)			

3.CONTENTS OF MAJOR PROJECT(S)
Major projects proposed for the development of natural soda around Lake Natron

- Construction of a soda refinery(capacity 1 mill. ton/year)
- Development of Tanga Port
- Construction of silos
- Improvement of existing railway lines
- Construction of a new road between a refinery and Arusha
- Purchase of locomotives, wagons and 30-ton semi-trailer trucks

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development of natural soda around Lake Natron will enable the export of refined natural soda, improving the balance of payment situations.
The development of a transport corridor connecting Arusha, Kilimanjaro and Tanga will stimulate regional development.
[Conditions]
(1) In order to secure the feasibility of the project, to keep the productive level around a million ton/year, and to secure an export market.
(2) To make full use of existing harbor and railway facilities, and to make a new road link between Lake Natron and Arusha.
(3) To provide low interest rate capital (less than 8 - 9% per year)
[Impacts]
(1) Export of refined natural soda of a million ton/year will enable to get gross foreign currency revenue US$ 80 million Net revenue is estimated US$ 14 million per year, taking into account the forein curency expenses.)
(2) The trade structure could be diversified from full dependance on agricultural products, which will expand and stabilire the export.
(3) Contribute to the development of regional economy along Arusha-Kilimanjaro-Tanga routes
(4) New technologies would be introduced and diffused through the inplementation of projects.
(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
On-the-job training for counterparts

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The study was submitted as a pre-feasibility study, with given uncertainty over market prospects, the production target and price setting. The annual world demand for natural soda at the time of the study was about 25 million tons, of which approximately 2.5 million tons were internationally traded. It was considered difficult for Tanzania to develop marketing outlets for its originally planned output of 1 million tons.
Subsequently, the Government of Tanzania decided to scale down the natural soda development project on the basis of the F/S undertaken by UNIDO, and established a factory (annual output of 1,000 - 1,500 tons for domestic use) with their fund (50 million shillings).

(FY1991 Overseas Survey)
State Mining Corporation (STAMICO) had planned to start a small-scale plant to produce about 30,000 t/year of soda ash, but the plan has failed owing to the lack of funds.
African Development Bank is financing a new techno-economic study of the project of soda ash production and construction of a caustic soda plant. A French company has been contracted to carry out the study.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1991 Overseas Survey)
Heavy investment costs and uncertain export prospects

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ナトロン湖天然ソーダ灰開発計画及び関連輸送施設調査

(M/P,Basic Study,Other)

PROJECT SUMMARY (M/P)

AFR TZA/S 102/77

Compiled Mar.1992
Revised

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Kilimanjaro Region Integrated Development Plan

3.SECTOR
Development Plan/Sericulture

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY

7.OBJECTIVES OF STUDY
Formulation of the Kilimanjaro Region Integrated Development Plan as a part of the country's third-5 Year Plan (1976-80)

8.DATE OF S/W .0

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

10.STUDY TEAM

No.of Members 32
Period Nov.1976-Oct.1977(11 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 92,705 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Whole Kilimanjaro region (13,209 sq. km)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	81,805		
	2)	129,163		

3.CONTENTS OF MAJOR PROJECT(S)

1. Agriculture (irrigation, extension of cultivated land)
2. Water Resouces (mapping)
3. Manufacturing (Kilimanjaro industrial development center)
4. Forestry (production forest)
5. Game conservation (wildlife survery)
6. Tourism (Kilimanjaro airport tourism center complex)
7. Transportation (road improvement)
8. Communication (telephone exchange)
9. Town (housing supply)
10. Village (rehavilitation of pilot village)
11. Public services (electricity, water supply)
12. Social services (health and education)

* The total cost 1) is the development budget for the period of 1977/78 - 1980/81, and the total cost 2) for the period of 1981/82 - 1985/86.

4.CONDITIONS AND DEVELOPMENT IMPACTS

This plan will contribute to the provision of those functions that will be initially necessary in order to proceed industrialization step by step.

Development Impacts
1. Provision of a basis for comprehensive rural development of Kilimanjaro region.
2. More efficient use of limited water resouces
3. Boosting industrial activities in the region
4. Increased earning of foreign exchange
5. Provision of production infrastructure
6. Improvement of community life

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)

1. Sep.1978 - Mar.1986
   Technical assistance (Kilimanjaro Agriculture Development Center Project and Kilimanjaro Small-and-Middle scale Industry Development Project) and the D/D study (Japanese grant of 2 billion yen)
2. Lower Moshi Agricultural Development Project
   Mar.1979 - Sep.1980: F/S completed by JICA
   Jun. 1982: OECF L/A signed (3.3 billion yen)
   Jul.1982 - Apr.1984: D/D completed
3. Electricity distribution network in Kilimanjaro area
   Jan. - Sep. 1979: F/S completed
   Oct., 1981: OECF L/A signed (1.6 billion yen)
4. Mkomazi Valley Area Irrigation Development Project
   Jun.1982 - Jan.1984: F/S completed by JICA
   Dec.1986 - Apr.1987: Basic Design completed by Japanese grant
   Jan.1988 - Mar.1990: Construction completed by Japanese grant (1.8 billion yen)
5. Forestry Development
   Dec.1986 - Aug.1988 JICA study on the semi arid forest forest management plan completed

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①④

和名 キリマンジャロ地域総合開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR TZA/S 301/77

Compiled Mar.1986
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Southern Coastal Link Road Project

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Works

7.OBJECTIVES OF STUDY
To examine both economic and thchnical feasibility of the project for constructing the existing Southern Coastal Link Road into an all-weather road

8.DATE OF S/W Sep.1975

9.CONSULTANT(S)
Japan Overseas Consultants Co., Ltd.
Fukuyama Consultants International, Inc.

10.STUDY TEAM

No.of Members 26
Period Aug.1975-Sep.1977(25 months)

Total M/M	Japan	Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	310,652 (¥'000)
Contracted	284,722

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Road with 330km long from Kibiti adjacent to Dar es Salsam to Lindi in the Sonthen area of Tanzania

2.PROJECT COST

(US$1,000) US$1=22.8sh		Total Cost	Local Cost	Foreign Cost
	1)	26,324	13,288	13,036
	2)	24,897	12,450	12,447
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
The study examined the road between Kibiti and Lindi (excluding the length covered by the Rufiji Bridge Construction Project) and its feeder road from Nangurukuru to Kilwa Masoko. The road was divided into the following five sections.

	Road (km)	Bridge (m)
No.1 Kibiti - Nyamwage	36	34
No.2 Nyamwage - Nangurukuru	100	1,187
No.3 Nangurukuru - Kiranjerange	86	491
No.4 Kiranjerange - Lindi	75	697
No.5 Nangurukuru - Kilwa Masoko	30	20
Tatal	327	2,429

The width of road is standardized as carriageway of 6.5m and shoulder of 1.2m - 1.8m. New bridges with two lanes are proposed for all bridge sites. Two alternatives of road pavement are considered. Alternative A is to construct two-lane gravel road in the beginning, which will be paved after 10 years (Cost 1) shown above). Alternative B is to construct two-lane paved road from the beginning (Cost 2) shown above).

Imp. Period: .1978-.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	6.99	FIRR1)	
EIRR2)	9.55	FIRR2)	
EIRR3)	6.32	FIRR3)	

Conditions and Development Impacts:

Conditions:
1. Construction of Rufiji River Bridge will precede the proposed road construction.
2. Project life of 30 years
3. Future traffic is estimated for Case 1 (annual growth of 5%) and Case 2 (7%). For Alt. A and Case 1, the traffic is highest in No.1 Section (192 vehicles/day in 1982 and 694 vehicles in 2012) and lowest in No.5 Section (59 vehicles/day in 1983 and 213 vehicles in 2012).
4. EIRR 1) above is for Alt. A/Case 1, EIRR 2) for Alt. A/Case 2, and EIRR 3) for Alt. B/Case 1.

Development impacts:
1) Ease of mobility, 2) reduction of travel cost, 3) reduction of travel time, 4) closer integration of the southern region with Dar es Salaam, 5) stimulation of regional development, agriculture and forestry, and 6) stability of socio-cultural life.
The development of the hitherto relatively isolated sourthern region will give a spurt to the national economic development of Tanzania.

5.TECHNICAL TRANSFER
1) OJT
2) Counter Part training

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
1980 May OECF loan for the purchase of construction equipment and vehicles (2,963 million yen)
1981 Construction commenced
Out of 330km, about 90km was completed by early 1990. The section from Nangurukuru to Kibiti (50km) was completed with assistance of two Japanese experts and seven Japanese volunteers.
Saudi Arabia provided finance (US$1.18 million) for the section from Somanga to Kibiti, but additional $900 million is necessary to complete it. Finland offered to finance the section between Nangurukuru and Lindi (150km), but withdrew the offer when the feasibility study by the World Bank found it not feasible.
(FY 1991 Overseas Survey)
The project is being implemented in phases: 70km being constructed to Bitumen Standards, and 91km completed up to Gravel Standards. The detailed designs were prepared by Japanese and German engineers.
Construction costs were provided by OECF (1980, 2,963 million yen), Saudi Arabia (1988, US$11.7 million) and own fund (1,220 million T.sh). The remaining 166km is still awaiting finance.
(FY 1992 Overseas Survey)
1992 Finance was approved (US$0.15 mil)
Sources: Governments of Japan, Saudi Arabia and Tanzania
1992 Construction commenced
1998 Scheduled to be completed

2.MAJOR REASONS FOR PRESENT STATUS
(FY 1992 Overseas Survey)
The importance of road link between southern region and Dar es Salaam and other cities.
The importance of transportation link for good and passengers among the north, central and south, where agriculture will be potentially developed.

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 南部沿岸道路建設計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR TZA/S 302/78

Compiled Mar.1986
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Purchasing of an Additional Passenger - Cum - Cargo Vessel for Tanzania Coastal Shipping Line

3.SECTOR
Transportation/Marine Transportation & Ships

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Transport Corporation, Ministry of Communication and transportation

7.OBJECTIVES OF STUDY
Improvement of domestic transportation

8.DATE OF S/W .0

9.CONSULTANT(S)
The Shipbuilding Research Centre of Japan

10.STUDY TEAM

No.of Members 9
Period May.1978-Feb.1979(9 months)

Total M/M	Japan	Field
5.36	4.63	0.73

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	25,830 (¥'000)
Contracted	7,372

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Southern coast from Dar es Salam to Mtwara

2.PROJECT COST

(US$1,000) US$1=194.6yen		Total Cost	Local Cost	Foreign Cost
	1)	4,959	4,959	
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)
Construction of one freight carrier
- 1,000 DWT
- 67.5m in length
- 15 knots
- Freight capacity: 410 tons
- Passenger capacity: 400 persons

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	12.33	FIRR1)	3.09
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
- Project life of 20 years
- Transport fares to be raised 20% every four years
- Estimated gross revenue 1.49 million Sh. and gross expenditure 0.98 million Sh.

Development Impacts:
Improvement of the transportation capacity along the southern coast

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
OJT

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
In June 1979, the OECF loan (1,700 million yen) was pledged for the proposed project. Subsequently, the Government of Tanzania changed its policy, and decided to buy a freighter and a tanker plying between Dar es Salam and Zanzibar with the loan. Therefore, the project was judged discontinued.

(FY1991 Overseas Survey)
The project was never implemented owing to the lack of finance.

2.MAJOR REASONS FOR PRESENT STATUS
Change of priority

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 貨客船建造計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

AFR TZA/S 103/80

Compiled Mar.1986
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Proposed Mahale Mountains National Park

3.SECTOR
Tourism/(Tourism in)General

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Wild Life Dept., Ministry of Natural Resources and Tourism

7.OBJECTIVES OF STUDY
Formulation of the national park development for the environmental protection

8.DATE OF S/W Jul.1978

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

10.STUDY TEAM

No.of Members 8
Period Aug.1979-May.1980(9 months)

Total M/M	Japan	Field
11.20	4.93	6.27

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	45,968 (¥'000)
Contracted	17,530

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The area designated for a national park (1,613 sq.m), Mgambo, Kigoma province

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	4,030		
US$1=225yen	2)			

3.CONTENTS OF MAJOR PROJECT(S)
1) Facilities for park operation: 7 locations
2) Traffic routes: 3 routes on the lake
   4 routes on the land surface
3) Communication: 3 systems
4) Kigoma headquarters
5) Local base at Birenge

4.CONDITIONS AND DEVELOPMENT IMPACTS
Development Impacts:
1) Establishment of the 11th national park
2) Protection of wild life and environment and surveillance on poaching
3) Tourism promotion

5.TECHNICAL TRANSFER
JICA sent 4 eclolgists to the local institute to work on ecological survey of chimpanzees.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
The proposals of the study were partly incorporated into the 3rd Five Year Development Plan (1977 - 81), and the studied area was made the 11th national park. However, the implementation of the proposed projects has been slower than envisaged. The Government of Tanzania applied for Japanese grant aid but was not successful.

(FY1991 Overseas Survey)
Mahale was gazetted as a full National Park in 1980, but the Mahale Master Plan has never been implemented.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 マハレ自然保護国立公園計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR TZA/A 301/80

Compiled Mar.1990
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Lower-Moshi Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Regional Development Directorate, Kilimanjaro

7.OBJECTIVES OF STUDY
F/S

8.DATE OF S/W Dec.1979

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

10.STUDY TEAM

No.of Members 18
Period Dec.1979-Oct.1980(11 months)

Total M/M	Japan	Field
36.33		36.33

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	231,639 (¥'000)
Contracted	209,993

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Moshi Area of Kilimanjaro Region (Investigated Area 42,000ha, population 44,000 as of 1979)

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
US$1=8.18T.Shs.	1)	77,346	31,436	45,910
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

Scheme	Rau	Miwaleni	Himo	Groundwater
Irrig. area	2,300ha	2,000ha	1,000ha	1,020ha
Intake	4 weirs	1 pump st.	2 weirs	20 tubewells
Main canals	11.03km	11.9km	9.27km	-
Second. canals	19.13km	19.2km	12.6km	-
Drainage canals	43.15km	18.2km	8.8km	-
Roads	39.9km	33.5km	20.0km	7.1km
Floodway embankment	w3m X 2.7km	5.7km	-	16.1km (floodway)

Imp. Period: Jul.1981-Feb.1988

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

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

Conditions and Development Impacts:

Conditions: Economic benefits consist of direct benefits from increased crop production by irrigation development and flood control. Although the project will help improve livestock production, its benefit is excluded from economic evaluation. Flood control facilities are designed with a 20-year flood probability.

Expected production of major crops(ton):

	Maize	Paddy	Beans	Oil seeds	Cotton	Vegetables
Without project	20,740	980	490	Little	610	1,000
With project	16,340	19,170	850	3,430	900	1,650

Development Impacts: Increased crop production, improved farmers' income and living standards, activation and stabilization of rural economy, creation of employment, etc. * EIRR 1)above is for the entire schemes. EIRRs for the individual schemes are as follows. Rau 15.3%, Miwaleni 12.4%, Himo 9.8%, Groundwater 8.1%.

5.TECHNICAL TRANSFER
-Training of two counterparts as trainees

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

1.The first priority project of Rau Scheme was completed as "Lower Moshi Agricultural Development Project".
Jun.1982 L/A OECF Loan (3.3 billion yen)
Jul.1982 - Apr.1983 Detailed Design by Nippon Koei Co.,Ltd.
Jul.1984 - Apr.1987 Construction(Contractor:Kounoikegumi
Consultant:Nippon Koei Co.,Ltd.

2.The second priority project of Miwaleni Scheme was requested in 1989 for a Japanese grant, but was not approved.

(FY1991 Overseas Survey)
The first priority project of Rau Scheme was implemented. Japanese finance is being awaited for other schemes. Miwaleni Irrigation Project is considered high priority because its implementation could supplement acute water shortage for Lower Moshi Irrigation Project.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 ローアモシ農業開発計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR TZA/A 302/83

Compiled Mar.1990
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Mkomazi Valley Area Irrigation Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Regional Development Directorate, Kilimanjaro

7.OBJECTIVES OF STUDY
F/S

8.DATE OF S/W Feb.1982

9.CONSULTANT(S)
Nippon Koei Co., Ltd.
Kokusai Kougyo Co., Ltd.
Naigai Engineering Co., Ltd.

10.STUDY TEAM

No.of Members 13
Period Jun.1982-Mar.1983(26 months)
Oct.1982-Jan.1984

Total M/M	Japan	Field
74.51	29.58	44.93

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	346,470 (¥'000)
Contracted	299,761

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Mkomazi Valley of Kilimanjaro Region (Investigated Area 190,000ha, population 90,000 as of 1982)

2.PROJECT COST

(US$1,000) US$1=12T.Shs	Total Cost	Local Cost	Foreign Cost
1)	61,200	23,500	37,700
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Irrig. Area (ha)	Dam	Diversion weir	Irrigation canal(km)	Drain canal(km)
Kisiwani	360	-	2	8.7	9.4
Gonja	600	-	1	20.9	17.7
Ndunqu	680	-	1	17.6	15.4
Kihurio	1,670	1	1	29.7	23.1
Iqoma	750	1	1	15.8	3.4
Total	4,760				

* Implementation period is 69 months.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	19.00	FIRR1)
EIRR2)		FIRR2)
EIRR3)		FIRR3)

Conditions and Development Impacts:

Conditions:
Agricultural benefit which was estimated as difference of crop production value, flood prevention benefit and benefit of water release for potable water from the Iqoma Dam is counted in evaluation.
Development Impacts:
To increase crop production, To increase employment opportunity, To improve transportation sytem, To improve sanitary condition, To promote migration from densely populated high lands.

* EIRR for project components range from 21.6 - 12.1%, and EIRR for the entire project is 19.0% as shown above.

5.TECHNICAL TRANSFER
-Training of counterpart
-Investigation in cooperation -Reporting

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 Ndunqu Area Project was completed by a Japanese grant (1.8 billion Yen)
Dec.1986 - Apr.1987 Basic Design by Nippon Koei Co.,Ltd.
Feb.1987 Stage 1 E/S (781 million Yen)
Aug.1988 Stage 2 E/S (944 million Yen)
Jan.1988 - Mar.1990 Construction (Contractor:Kounoikegumi
Consultant:Nippon Koei Co.,Ltd.)

(FY1991 Overseas Survey)
The first priority was given to the Ndunqu Scheme as a model for other schemes. But finance has not been available for the other schemes.

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ムコマジバレイ農業用水開発計画

{F/S,D/D}

PROJECT SUMMARY (Other)

AFR TZA/A 601/88

Compiled Mar.1990
Revised Dec.1992

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Expanded Afforestation Work in the Same District of Kilimanjaro Region

3.SECTOR
Forestry/General

4.REFERENCE NO.

5.TYPE OF STUDY Other

6.COUNTERPART AGENCY
Ministry of Natural Resources and Tourism

7.OBJECTIVES OF STUDY
This study was implemented to prepare the semi-arid forest management plan by Social Forestry to contribute to the promotion of forestry policy and economic development of local community in Tanzania.

8.DATE OF S/W Aug.1986

9.CONSULTANT(S)
Japan Forest Technical Association

10.STUDY TEAM

No.of Members 16

Period Dec.1986-Aug.1988(21 months)

Total M/M	Japan	Field
76.00	38.00	38.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Aerial Photography

12.EXPENDITURE

Total	345,192 (¥'000)
Contracted	311,037

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Moshi area in Same District, Kilimanjaro Region (200,000ha)

2.PROJECT COST

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

3.CONTENTS OF MAJOR PROJECT(S)

1.A 200,000 ha of the Study Area was set up in the above mentioned area and suitable sites were classified for social forestry development plans in the Study area.

2.A 20,000 ha of the Model Area was set up around Moshi in the study area. Semi-arid Forest Management Plan was formulated for the Model Area.

* Costs are not estimated.

4.CONDITIONS AND DEVELOPMENT IMPACTS

In recent years excessive felling of fuelwood and over grazing as well as irregular climatic changes have drastically reduced the forest area and deteriorated forest productivity and environment conservation functions.

These situations will be checked effectively when social forestry development plans and semi-arid forest management plan will be put forward.

And the promotion of these plans will contribute to the regional socio-economic development such as enlarged employments.

5.TECHNICAL TRANSFER
1) training of the counterparts; 2) OJT through field surveys; 3) OJT on aerial-photo interpretation and transfer of its results onto the topographic maps; 4) joint formulation of the plans

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)

In order to implement the semi-arid forest management plan, a project-type technical cooperation program or a grant was proposed. Subsequently, "Social Forestry Project in Killimanjaro Region", a project-type technical cooperation, was approved. The project consists of the Preliminary Phase (2 years) from Jan.1991 and the Implementation Phase (5 years).

(FY1991 Overseas Survey)
The proposals of the study were incorporated to the Tanzania Forest Action Plan. The proposals and two types of maps produced by the Study are being used during the 1st phase of the technical cooperation project.

2.MAJOR REASONS FOR PRESENT STATUS
This social forestry project was realized in response to the strong request from the Tanzanian Government.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 キリマンジャロ林業開発計画

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR TZA/S 303/90

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Road Improvement and Maintenance in Dar es Salaam

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Dar es Salaam City Council (DCC)
Ministry of Works (MOW)

7.OBJECTIVES OF STUDY
- Master Plan Study of Road Improvement
- Feasiability Study for High Priority Projects
- Establishment of Maintenance System

8.DATE OF S/W Oct.1988

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

10.STUDY TEAM

No.of Members 11
Period Mar.1989-Jul.1990(13 months)

Total M/M	Japan	Field
57.90	25.00	32.90

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	214,868 (¥'000)
Contracted	195,893

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Dar es Salaam City area

2.PROJECT COST
(US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	31,700	11,300	20,400
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

	Cost (mil. US$)
1) Category A (Road Improvement)	
A-1: Widening of Bagamoyo Road (9.8km)	6.2
A-2: Widening of Morogoro Road (5.9km)	5.6
A-3: Changombe Area Roads (19.2km)	3.5
A-4: Kariakoo Area Roads (31.0km)	6.3
A-5: Mwinjuma Area Roads (16.9km)	3.1
A-6: Central Area Roads (20.0km)	3.1
2) Category B (Urgent Repairs of Potholes)	1.3
3) Category C (Establishment of New Main Deport and Procurement of Equipment	1.9
4)Detailed Design/Tendering	0.7
total	31.7

Imp. Period: .1990-.1994

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	25.10	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
1. Conditions: 5% of annual population growth rate, 4% of GDP growth rate and 4.3% of annual traffic growth rate were adapted.
2. 15 years of project life was assumed.
3. The Direct Benefit consisted with Vehicle Operation Cost (VOC) saving and Time Cost saving was estimated with desirable indicator of 25.1% of EIRR.

5.TECHNICAL TRANSFER
On-the-job training was done to five counterpart engineers of DCC and MOW.

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 priority project recommended in the short-term plan of the Master Plan was authorized by the Tanzanian Government and requested to the Japanese Government.
- B/D Study was completed in March. 1991.
- A grant up to 896 million Yen was mutually agreed with Tanzanian and Japanese Governments for the implementation of Phase 1 Project in July 1991.
- Consultant Services for Phase I started in July 1991 and Constraction Work started in December 1991. All the Work and Services for Phase I were completed in December 1992 successively.
- A Japanese grant aid for Phas II up to 987 milliion yen was agreed in June 1992.
- Consultant Services and Construction Work started in June 1992 and Dvecember 1992 respectively and those are now in process.

(FY1991 Overseas Survey)
Phase I of the planned 4 phases is being implemented with Japanese grant aid (769.5 million yen) and own fund (395.95 million Tsh).

2.MAJOR REASONS FOR PRESENT STATUS
The Tanzanian Government decided to implement the rehabilitation and strengthening ofthe city roads as no.1 priority project.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ダルエスサラーム市道路整備計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR TZA/A 303/90

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Lower Hai and Lower Rombo Agricultural Development Project

3.SECTOR
Agriculture/General

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Regional Development Director, Kilimanjaro Region

7.OBJECTIVES OF STUDY
1)To assess the availability of groundwater and surface water resources for agricultural development. 2)To identify subareas with high agricultural development potential. 3)To formulate agrucultural development plan for

8.DATE OF S/W Feb.1988

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

10.STUDY TEAM

No.of Members 8
Period Oct.1988-Nov.1990(26 months)

Total M/M	Japan	Field
50.25	14.94	35.31

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
157,000 (installation of water level gauge)

12.EXPENDITURE

Total	299,911 (¥'000)
Contracted	174,416

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kilimanjaro Region

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	15,100	3,000	12,100
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
-Development area: 1,550ha.
-Irrigation & Drainage Facilities: Boloti Dam, Lawati Weir, Sanya Chini Weir, Tabe Well.
-Procurement of O/M Equipment.
-Institution & Organization.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes

EIRR1)	15.10	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Development impacts:
1)Increase in employment opportunities by the construction and the intensive farming, 2)Increase in production of agricultural crops, 3)Increase in farmers' income, 4)Improvement of local transportation by the construction of roads, 5)Secondary direct benefits to millers, merchants, and transporters, 6)Miltigation of floods by the construction of the Boloti dam, 7)Improvement of domestic water supply by tube wells and water supply tanks, 8)Improvement of water supply to cattle grazing by irrigation water supply throughout the year, 9)Introduction of fish farming in the Boloti reservoir, and 10)Demonstration effects of the Project to other projects.

5.TECHNICAL TRANSFER
-Technology transfer to counterparts in the course of the Study.
-JICA training course.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
(FY1991 Overseas Survey)
The grant aid request was submitted to the Japanese Embassy in March 1991, but so far not approved.

(FY1992 Overseas Survey)
Waiting for the answer.

2.MAJOR REASONS FOR PRESENT STATUS
(FY 1991 Overseas Survey)
The total estimated cost is very large (2,951 million T.sh), and it will take long time to implement the project without external assistance.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ハイロンボ農業開発計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR TZA/S 304/91

Compiled Mar.1993
Revised

I. OUTLINE OF STUDY

1.COUNTRY Tanzania

2.NAME OF STUDY
Rehabilitation of Dar Es Salaam Water Supply

3.SECTOR
Public Utilities/Timber Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
National Urban Water Authority (NUWA)

7.OBJECTIVES OF STUDY
To establish the F/S in order to get following items:
1) Supplying portable water to the served area
2) Increasing effective water in the WTP
3) Expecting the autonomous of NUWA

8.DATE OF S/W .0

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

10.STUDY TEAM
No.of Members
Period Jun.1989-Jul.1991(25 months)
Total M/M Japan Field

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE
Total 351,662 (¥'000)
Contracted

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Area serviced by the water supply system for the city of Dar es Salaam, excluding the areas along the transmission pipelines.

2.PROJECT COST
(US$1,000)
US$1=200Tsh=140yen

	Total Cost	Local Cost	Foreign Cost
1)	38,400	10,730	27,670
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
1. In-house Activities of National Urban Water Authority(NUWA)
 1)Meter installation (15,000 units)
 2)Leakage control measure (distribution system)
 3)Pipe cleaning: air scouring (417km) and scraping & lining (213km)

2.Contractual Work
 1)Leakage control measures (transmission system)
 2)Leakage control measures of the distribution system: replacement of 16 pressure reducing valves and 16 meters at off-takes.
 3)Connection of existing pipes (at 14 places)
4)Primary main pipe laying (500~200mm, 30.6km)
5)Secondary main pipe laying (100~150mm,46.8km)
6)Middle Zone facilities: one break pressure tank (10,600 cu.m) and supply and lay pipe (7.8km)
7)Rehabilitation of treatment plants (Lower Ruvu and Mtoni)

* The cost above is in Nov. 1990 prices.

Imp. Period:

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: Yes/No

EIRR1)		FIRR1)	7.20
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:
Assumptions: 1) Increased billings and revenues by reduction of illegal connections and arrears and meter installations; 2) Revised water tariff system, including the proposed 68% increase from July 1, 1991; 3) Administrative improvement of operation and maintenance(leakage control, timely repairs) 4) Strengthening of in-house training programs for technicians and other personnel and 5) Project life of 20 years.

Development impacts: By the implementation of the proposed rehabilitation project, potable water available for distribution by the system will increase from 193,400 cu.m/day in 1990 to 205,900 cu.m in 1995.
The FIRR of 7.2% is for the basic case in which the administrative improvement program including the reduction of illegal connections and arrears is 50%-effective in increasing the revenue at the discount rate of 10% (B/C rate of 0.87). If the revenue improvement is 30%-effective or less, the B/C ratio would be substantially lower than 1 even with a discount rate of 3%. However, it is judged that the administrative improvement program is likely to be more than 50%-effective. It is desirable to achieve 70%-effectiveness, in which the B/C ratio will exceed 1, at the 10% discount rate.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER

III. PRESENT STATUS OF STUDIED PROJECT

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

(Description)
(FY1992 Overseas Survey)
Detailed design not yet started
1991 Grant Aid requested to Japanese Government in 1991 (600 million yen (1990 prices)) to cover supply of eqipment for leakage control, pipe clearaing and metering
1995 Scheduled to complete.

2.MAJOR REASONS FOR PRESENT STATUS
Financing of the project componects identified by JICA study is not yet to be effected.

3.PRINCIPAL SOURCE OF INFORMATION
②

和名 ダルエスサラム市給水施設整備計画

(F/S,D/D)

PROJECT SUMMARY (F/S)

AFR ZAR/S 301/78

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Zaire

2.NAME OF STUDY
Project de la construction du pont sur le fleuve Zaire a Matadi

3.SECTOR
Transportation/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
O.E.B.k, Department des Transports

7.OBJECTIVES OF STUDY
Basic designing having an accuracy that allows for the immediate preparation of executing construction work

8.DATE OF S/W Nov.1977

9.CONSULTANT(S)
Japan Railway Technical Service

10.STUDY TEAM

No.of Members 33
Period Feb.1978-Jun.1978(4 months)

Total M/M	Japan	Field
71.24	71.24	

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	150,804 (¥'000)
Contracted	93,516

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Matadi

2.PROJECT COST
(US$1,000)
US$1=0.5Zaire=300Yen

	Total Cost	Local Cost	Foreign Cost
1)	75,667		
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
This study was carried out while based on the integated study including collected datas made up by the investigation committee sent by GOJ from Oct. 19, through Nov. 8 1977. It was also based on the technical matters and the alliance recognized between the above committee and the gov. of Zaire. This basic study made details of the project very clear.(volume, method, period, expenditure of expected construction including upper-and lower-structure of matadi bridge and detached facilities.)

1.	Length of the bridge	700 m
2.	Length of the center part of bridge	520 m
3.	Length of the access road	7.2 km
4.	Length of the access railway road	18.11 km
5.	Capacity of the bridge	1,800 t
6.	Width of the lane	12 m x 2 lanes

Imp. Period: .1980-.1985

4.FEASIBILITY AND ITS ASSUMPTIONS
Feasibility: No

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

Conditions and Development Impacts:
Development Impact :
Matadi port, the only international port in Zaire, plays an important role in the economy of Zaire in that copper is exported from there via a domestic transport route. The port is 150km away from the Atlantic Ocean up the Zaire River, and it is in the river where many problems occur. To cope with this situation, there is a plan to construct at Banana a new port facing the Atlantic Ocean and to extend the railway between Kinshasa and Matadi to the Atlantic coast. As part of this plan, this project(the Matadi Bridge Project) is to construct a road-rail bridge. Completion of this bridge would greatly contribute to the economic development of Zaire.

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
Until 1988, there was a continuous transfer of technology by Japanese experts stationed in Zaire.

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)

November 1977	Contact mission dispatched,
August 1978	L/A revised
February to April 1978	: contract prepared
August 1978	Bids invited
November 1978	Bidding
December 1978	Contract approved by OECF
February 1979	Construction started
May 1983	Construction Completed

2.MAJOR REASONS FOR PRESENT STATUS

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 マタディ橋梁建設計画

{F/S,D/D}

PROJECT SUMMARY (M/P)

AFR ZAR/S 101/86

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Zaire

2.NAME OF STUDY
Plan - directeur relatif a l'amenagement du systeme de transport allant de la ville de Kinshasa a Banana

3.SECTOR
Transportation/Fisheries

4.REFERENCE NO.

5.TYPE OF STUDY M/P

6.COUNTERPART AGENCY
Department of Foreight affairs and International Cooperation

7.OBJECTIVES OF STUDY
(1) Preparation of master plan for the transport system between Kinshasa-Banana
(2) Preparation of master plan for the urban transport system in Kinshasa city.

8.DATE OF S/W Jun.1984

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

10.STUDY TEAM

No.of Members 13
Period Nov.1984-Aug.1986(22 months)

Total M/M	Japan	Field
76.48	41.02	35.46

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Traffic Survey

12.EXPENDITURE

Total	274,974 (¥'000)
Contracted	242,680

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kinshasa city and Bas Zaire

2.PROJECT COST

(US$1,000)	Total Cost	Local Cost	Foreign Cost
1)	1,185		
2)			

3.CONTENTS OF MAJOR PROJECT(S)
Route planning for west-east traffic bypass
1) To construct the railway line between Kisenso in East Kinshasa and Kimbanseke through Unjiri River for 5 km.
2) To construct East-West Arterial Road between MADI Road and RUMUNBA Road for 11 km long, and related access road.

4.CONDITIONS AND DEVELOPMENT IMPACTS

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
1) Acceptance of trainees : Training was held in Japan for formulation of traffic plan and countermeasures.
2) Local consultants were used for traffic survey and aggregation.

III. PRESENT STATUS OF STUDY RESULTS

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

(Description)
Based on the study, a feasibility study was undertaken by JICA on the railway construction between Kisenso and Kimbanseke, but the project implementation was cancelled. The government of Zaire has stronger interest in road development, and JICA agreed to undertake a feasibility study on the east-west arterial road in Kinshasa City in 1989.

2.MAJOR REASONS FOR PRESENT STATUS
Difficulty in procuring funds due to increased foreign debts. Total investment volume must be reduced.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 キンシャサ～バナナ間交通体系総合調査

{M/P,Basic Study,Other}

PROJECT SUMMARY (F/S)

AFR ZAR/S 302/87

Compiled Mar.1990
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Zaire

2.NAME OF STUDY
Railway Construction Project between Kisenso and Kimbanseke

3.SECTOR
Transportation/Railway

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department des Transports et communications

7.OBJECTIVES OF STUDY
F/S for constructing a new commuter railway line (5km) in Kinshasa

8.DATE OF S/W Jun.1986

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

10.STUDY TEAM

No.of Members 11
Period Nov.1986-Dec.1987(14 months)

Total M/M	Japan	Field
51.70	27.56	24.14

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	218,868 (¥'000)
Contracted	201,167

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
The districts of Ndili and Kimbanseke in southwestern Kinshasa

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	33,000	7,000	26,000
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
- New railway line (nonelectrified single track of 5km)
- 3 new stations

Imp. Period: Jan.1989-Dec.1990

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	16.40	FIRR1)	5.70
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

1. Precondition for calculating IRR
   Passenger traffic was estimated based on a forecast for the years 1990, 2000, and 2010. It is necessary to confirm that reinforcement of the urban railway in Kinshasa has been completed and that it is able to offer suitable services as an urban railway.

2. Development impacts
   Expected development impacts consist of improvement of connections between Ndjili-Kimbanseke and the center of Kinshasa,resulting in sound urban development of the district of Kimbanseke.

5.TECHNICAL TRANSFER

(1) OJT on methods for demand forecast, transport planning, facility planning , and economic and financial analysis.
(2) Acceptance of trainees

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

The new railway line is expected to serve as additional means of urban transport within Kinshasa City, on condition that the section within the city of the existing Kinshasa-Matadi railway line be developed to the urban transport standard.

West Germany is now assisting the development of the section (double tracking, introduction of CTC,etc.), but implementation is expected to take long time. Accordingly, the implementation of the proposed new railway line will be delayed.

In September 1991, the long-term JICA expert from Japan Railway Construction Public Corporation returned to Japan owing to the worsening of public peace and order in Zaire. At present, situation of this project is unclear.

2.MAJOR REASONS FOR PRESENT STATUS

The ongoing reinforcement of the conventional railway line in Kinshasa has not yet been completed.

3.PRINCIPAL SOURCE OF INFORMATION

①

和名 キセンソ・キンバンセケ鉄道建設計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR ZAR/S 303/89

Compiled Mar.1991
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Zaire

2.NAME OF STUDY
Construction Project of the East-West Road in Kinshasa City

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
The Bureau d'tudes D'amanagements of Durbanisme of the Department of Public Works and Regional Development

7.OBJECTIVES OF STUDY
Arterial Road Construction

8.DATE OF S/W Nov.1988

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

10.STUDY TEAM

No.of Members 10
Period Mar.1989-Mar.1990(12 months)

Total M/M	Japan	Field
40.03	15.00	25.03

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Traffic Survey; Topographic Survey; and Soil/ drilling survey and Test

12.EXPENDITURE

Total	180,531 (¥'000)
Contracted	159,093

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Kinshasa City

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	62,598	15,356	47,242
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)
Construction of the East-South Road between Matadi Road and Lumumba Road in Kishasa City:
Urgent Projects : 2-lane Road (11 km)
The South-North Road is relatively in good condition.

Imp. Period: .1992-.1995

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	18.29	FIRR1)	
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
Smoothed execution of:
1.Land Expropriation by the Zaire Government
2.Scheduled Road Improvement Plan by IBRD/OVO

Development Impacts:
1. Induced Land Use along the Project Road
2. Improvement of Road congestion and savings of VOC
3. Road Transport Services for the poor
4. Employment effect during construction period;
(150,000 skilled workers, and 215,000 unskilled workers) are expected to hired.

5.TECHNICAL TRANSFER
1)On the job Training; 2)Counterparts training in Japan; 3)Employment of Local Consultants; and 4)Donation of computer and photocopy Machine

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 the completion of F/S.

2.MAJOR REASONS FOR PRESENT STATUS
Alteration of priority from the side of the government of Zaire.

3.PRINCIPAL SOURCE OF INFORMATION
①

和名 キンシャサ市内東西幹線道路建設計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR ZMB/S 301/81

Compiled Mar.1986
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Zambia

2.NAME OF STUDY
Microwave Radio Relay Project

3.SECTOR
Communications & Broadcasting/Telecommunication

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Posts and Telecommunications Corporation

7.OBJECTIVES OF STUDY
The improvement and expansion of the existing system anb the establishment of the rural telecommunications system in Zambian national telecommunications networks

8.DATE OF S/W Dec.1980

9.CONSULTANT(S)
Nippon Telecommunication Consulting Co., Ltd.

10.STUDY TEAM

No.of Members 12
Period Jan.1981-Apr.1981(3 months)

Total M/M	Japan	Field
13.57	9.00	4.57

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY

12.EXPENDITURE

Total	43,141 (¥'000)
Contracted	31,263

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
Whole countries

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	38,566	8,901	29,665
2)	10,218	2,578	7,640
3)			

3.CONTENTS OF MAJOR PROJECT(S)

1. Mass Media TV Link: A bothway working TV radio bearer and a bothway protection bearer between the existing and the new TV studios; Addition of remote control and switchover functions for TV signal transmission, etc.
2. Lusaka - Copperbelt Route: 1,800-channel system by 6 GHz upper band between Lusaka & Chingola, and between Ndola & Kaloko Hill; a bothway route between Lusaka & Kitwe and a one-way route between Kitwe & Chingola for TV transmission, etc.
3. Kasama - Mansa Route: 960-channel system by 2GHz band between Kasama & Mansa; 120-channel systems for Mansa - Mwense - Kawambwa - Nchelenqez and for Mansa - Samfya
4. Chingola - Solwezi route: 960-channel system by 6GHz upper band between Chingola & Solwezi; a one-way TV transmission route
5. Kasama - Mbala and Kasama - Mporokoso routes: 120-channel system each by 2GHz band
6. Chipata - Lundazi Route: 120-channel system by 2GHz band, including the Lundazi - Chama and Chipata - Mfuwe Airport Links

Phase 1 Plan:
Lusaka - Copperbelt, Kasama - Mansa, Kasama - Mbala, Kasama - Mporokoso and Chipata - Lundazi Routes: Cost 1) shown above, implementaton period 32 months

Phase 2 plan:
Chingola - Solwezi route, Lundazi - Chama Link, and Kawambwa - Nchelenqe Link: Cost 2) shown above, constructin period 29 months

Imp. Period: .1982-.1984

4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: Yes

EIRR1)	10.38	FIRR1)	8.78
EIRR2)		FIRR2)	11.28
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Conditions:
1. Phase 1 construction cost includes the cost of channel units to meet the circuit requirement for 1989. Basic facilities are designed to be capable of traffic transmission projected for 2000.
2. The construction of the Mass Media TV Link will be financed by the government budget (approx. 1 million Kwacha).
3. Operation to begin in mid-1984; project life of 20 years
4. System expansions are assumed in 1989 nd 1994.
5. The call charge is assumed to be raised in mid-1982 from the current rate of K0.080 per call to K0.10.

Development impacts:
The main objective of the 3rd Development Plan is to promote regional development and to overcome the excessive dependence on copper industry. The improvement of the Lusaka and Copperbelt trunk network will contribute to the consolidation and development of copper industry. Expansion of communication routes to the northern region will help improve the capability of Tanzania Railways, while the proposed routes for the eastern territory will serve to activate the development potentials of the most fertile land in Zambia.
* EIRR 1) and FIRR 1) are for the entire plan, and FIRR 2) for the Phase I Plan.

5.TECHNICAL TRANSFER
1) Trainee acceptance : 3 counterparts were invited to Japan, and studied technical system; 2) Preparation of report; and 3) On job training (PTC 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)
Dec.1983 OECF loan agreement (749 million yen)
Nov.1984 D/D completed
Jun.1987 Construction completed by own funds

(FY1991 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
High priority

3.PRINCIPAL SOURCE OF INFORMATION
①②④

和名 マイクロウェーブ回線網建設計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR ZMB/S 302/85

Compiled Mar.1988
Revised Mar.1992

I. OUTLINE OF STUDY

1.COUNTRY Zambia

2.NAME OF STUDY
Lusaka International Airport Development Project

3.SECTOR
Transportation/Air Transportaion & Airport

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Department of Civil Aviation, Ministry of Power, Transport and communications

7.OBJECTIVES OF STUDY
1) Examine technical, economic and financial feasibility of Project
2) Technology trasfer to counterpart officials

8.DATE OF S/W Jul.1984

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

10.STUDY TEAM

No.of Members 8
Period Dec.1984-Dec.1985(13 months)

Total M/M	Japan	Field
43.67	28.67	16.00

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Geological survey

12.EXPENDITURE

Total	151,654 (¥'000)
Contracted	149,727

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
North-east of Lusaka

2.PROJECT COST (US$1,000)

	Total Cost	Local Cost	Foreign Cost
1)	58,700	21,100	
2)			
3)			

3.CONTENTS OF MAJOR PROJECT(S)

Contents	Facility size/quantity
Runway,taxiway repair	10km extension
Apron expansion	35,000 sq.m approx.
Passenger terminal building improvement	13,000 sq.m
Cargo terminal building improvement	6,400 sq.m
VIP building construction	1,400 sq.m
Telecommunications facility renovation	Total system

Imp. Period: .1987-.1989

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

EIRR1)	12.50	FIRR1)	2.30
EIRR2)		FIRR2)	
EIRR3)		FIRR3)	

Conditions and Development Impacts:

Premises for IRR calculation : air transport demand forecast is made for a period of 1990-2010 at 5-year interval. Total national demand is forecast by regression analysis using EC countries gross domestic product as explanatory variable, and the national demand is distributed into regional demand considering urbanization and regional development trends and potentials of each respective region.

The project is planned in two stages. Phase I targetted for 2000 and Phase II for 2010. Development effects expected include increase in tourism income and in employment opportunities, as well as possible foreign capital investment in Zambia.

5.TECHNICAL TRANSFER
1) One counterpart participated in JICA counterpart training program; and 2) Local consultants participation : Airport civil work facility survey is jointly conducted under Japanese supervision.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)

After the completion of F/S, the Government applied for an OECF loan, but suspended the application because of the large project cost.

The arrival hall of the terminal building and the modernization of telecommunication equipment were completed with Italian and OPEC finance in Dec. 1990.

(FY1991 Overseas Survey)
The project was modified according to the local situation.

2.MAJOR REASONS FOR PRESENT STATUS
Zambia is not eligible for Japanese loan aids due to its bilateral accumulated debt. The sheer competition in loan and grant aids to Zambia among donor countries makes Zambia quite reluctant to request a project loan application to Japan.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 ルサカ国際空港整備計画

{F/S,D/D}

PROJECT SUMMARY (F/S)

AFR ZMB/S 303/90

Compiled Mar.1992
Revised Mar.1993

I. OUTLINE OF STUDY

1.COUNTRY Zambia

2.NAME OF STUDY
Kafue Road Bridge Reconstruction Project

3.SECTOR
Transportation/Fish Processing

4.REFERENCE NO.

5.TYPE OF STUDY F/S

6.COUNTERPART AGENCY
Ministry of Works and Supply

7.OBJECTIVES OF STUDY
F/S of reconstruction of the Karue road bridge

8.DATE OF S/W Mar.1989

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

10.STUDY TEAM

No.of Members 10
Period Oct.1989-Sep.1990(12 months)

Total M/M	Japan	Field
47.03	20.40	26.63

11.ASSOCIATED AND/OR SUBCONTRACTED STUDY
Topographic; Geological; and Traffic Volume Survey.

12.EXPENDITURE

Total	211,467 (¥000)
Contracted	179,330

II. SUMMARY OF STUDY RESULTS

1.SITE OR AREA
South 60km Lusaka City

2.PROJECT COST

(US$1,000)		Total Cost	Local Cost	Foreign Cost
	1)	13,750	3,160	10,590
	2)			
	3)			

3.CONTENTS OF MAJOR PROJECT(S)

Features of New Bridge:
- Bridge length : 162M (38.0+2 x 43.0+38.0m)
- Bridge width : 7.30 + 2.0 = 9.30M
- Approach road : 750M
- Superstructure: 4 span contineous steel girder
- Subastructure : Abuttment 2, direct foundation
  pier 3, steel pile foundation

Construction Cost
The aggregate cost of construction was worked out as approx. 13.2 million US$. Construction Implementation Program
(1) The existing bridge removal : by a bent pile method
(2) The new bridge construction : by a bent pile method
(3) Atemporay bridge pile-driving : by a water jet and vibro method
(4) The new birdge pier driving : by a pre-boring and vibro method

Imp. Period: Feb.1991-Aug.1993

4.FEASIBILITY AND ITS ASSUMPTIONS

Feasibility: Yes/No

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

Conditions and Development Impacts:

Conditions of Economic Analysis:
(1) Elimination of Risk of Bridge Unserviceability Increase of vehicle operating cost by diversion to detour routes is regarded as an economic benefit.
(2) EIRR
Economic Internal Rate of Return (EIRR) which is an indicator of economic analysis is estimated for the assumed detour routes as follows:
- Case of Itezhi Tezhi Route : 80.1%
- Case of Chiawa Pontoon Route : 51.9%

Development Impacts:
The road passiong through the Kafue Road Bridge is a trunk line which joins Lusaka City and Southern Province in Zambia, and furthermore outside southern African countries (i.e. Zimbabwe, Botswana, and Mozambique).

(FY 1993 Domestic Survey)

5.TECHNICAL TRANSFER
No technical transfer that there was no counterpart.

III. PRESENT STATUS OF STUDIED PROJECT

1.PRESENT STATUS

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

(Description)
At present this bridge is under construction and will be scheduled to be opened to traffic at the end of August in 1993.
1990 D/D
Feb. 17, 1991 E/N (1,951 Million Yen)

(FY 1991 Overseas Survey)
In Jan. 1992, the construction contract is conducted between Ministry of Works and Supply and Shimizu Kensetsu. The construction will be completed by the end of Aug. 1993.

By the end of 1992, construction of the substructure was finished. By the end of April 1993, the construction of the superstructure will be finished.

(FY1992 Overseas Survey)
No additional information.

2.MAJOR REASONS FOR PRESENT STATUS
(FY1992 Overseas Survey)
The bridge is on a regional trunk road and its reconstruction is crucial.

3.PRINCIPAL SOURCE OF INFORMATION
①②

和名 カフエ川道路橋改築計画

(F/S,D/D)