CHAPTER VI ADMINISTRATION AND MAINTENANCE PLAN

6-1 Administration

The present project, as mentioned earlier, is intended to ① increase of fish catches and processing capacity and promote local distribution and ② expand the processing capacity for shrimp and improve the quality of shrimp products. In this regard, the purpose of the project is two; i.e., from a national point of view, it enables the procurement of foreign currency and, from a domestic point of view, it makes available to the citizens a source of protein. The GFL, which will initiate the project, now seeks to expand and improve its activities as a business establishment and, in this respect, the success of the project depends on how the GFL can meet the goal it has set and whether it can manage its business effectively.

Department	Facilities/Equipment	Item	Location
Vessel	20 ton trawler	Fish	Houston
	" " fishing gear	"	"
Shore Plant	Shrimp grading machine	Shrimp	McDoom
	Ice making facilities	Shrimp/fish	"
	Forklifts	"	"
	Water treatment system	"	"
	Blast freezer	"	"
	Standby generator	"	"
Distribution	Refrigerated truck	"	McDoom
	Fish boxes	Fish	"

Following is the study as to whether each of these departments is capable of handling the new facilities and materials/equipment.

6-1-1 Vessels Department

(1) Pier

The pier at the GFL fishing base in Houston is 540m long and 43 vessels call on the pier at present; 23 shrimp trawlers and 4 wooden fishing trawlers owned by the GFL, 8 shrimp (Japanese-3, J/V-5) trawlers belonging YUTAKA Fisheries Co., and 8 shrimp trawlers owned privately. As shrimp boats are at sea for about 35 to 38 days per trip, the use by shrimp J/V boats from Libya and China or the introduction of about 10 fish trawlers in the future is not likely to disrupt the current berth use cycle.

(2) Maintenance

Adoption of FRP fish trawlers is being considered for the present project, as they are likely to prove suitable in terms of the procurement of freeboard and economy. As was discussed in Chapter 2-3-2, they appear to be no problems regarding the maintenance and repair of fish trawlers judging from the work done on fishing boats presently in operation.

(3) Crew

As of July, 1984, there were a total of 118 shrimp trawlers actually operating at the Demerara fishing base. Except for the three shrimp trawlers of YUTAKA Fisheries Company, registered under Japanese law, each is under the command of a Japanese captain, all are operated by Guyanese; some excess crew members are also working on shrimp trawlers of neighbouring Surinam. Most of the shrimp trawlers are 72 feet in length and use a caterpillar or cummins engine of about 365 horsepower.

The fish trawlers expected under the present project are smaller than the shrimp trawlers and are mechanically simpler; although there may be some differences in fish methods, crews will not be required to have highly technical expertise. No problems, therefore, are anticipated in procuring crew members.

Efforts are being made on the part of the GFL to train fishing boat crews are captains: curriculum has been prepared and the crews undergo training programs in accordance with a manual prepared by a West German consultant. Harbor masters and pilots working at Port Georgetown are invited as instructors and examinations for Captain Licence are are conducted as part of the effort to increase the number of licensed crews.

6-1-2 Shore Plant Department

The programs relevant to the Shore Plant Department are the replacement of existing facilities and extension of such facilities on a small-scale; in this light, it is of great importance to study how these facilities are being operated at present.

A number of facilities are available at McDoom; freezers, cold stores, ice making machines, and a processing plant provided under an grant aid of the Japanese government and EC.

These facilities are properly maintained under the direction of Japanese fishery company, staff stationed at the site and technical advisors from the Overseas Fishery Cooperation Fund of Japan. No particular problems, therefore, are noted as regards to maintenance.

As for administrative engineers, mechanical and electrical engineers in particular, no increase in the work force is needed, as extension is smaller scale. The current arrangement is adequate technically.

It can be said that management will be how these facilities can be operated organically together profitably, and this success depends on the managerial ability, will, and the efforts of the GFL.

The GFL has invited a West German consultant to assist with the replacement and modification of old shrimp trawlers with loan from I.D.B.; the organization is quite active in promoting its business. There is still some room for improvement in terms of operation of fishing boats, processing facilities and management efficiency and it is hoped that further effort shall be made in the future.

6-2 Personnel

Except in the case of the items listed below, the present work force is considered adequate to maintain and administer the facilities; the same holds true for administrative work. In this regard, personnel required for the present project are only those to be directly involved in production activities (see the breakdown below).

Department	Assignment	Facilities Equipment	Number	Remarks
Vessels	Captain	Fishing trawler	10	1 person x 10 boats
	Crew	" "	30	3 " x 10 "
Processing	Stevedore	Ice making machine/Blast freezer	12	To help load fish at McDoom pier; sorting, weighing, washing, icing and freezing of fish.
	Driver	Forklifts	3	Operation of 2 fork-lifts inside freezer at pier.
	Maintenance worker	Water treatment system	4	8 hrs. x 3 person 1 for maintenance
Sales	Driver	Refrigerator trucks	3	1 x 3 trucks
	Sales clerk	"	3	1 x 3 trucks
	Cashier	"	3	1 x 3 trucks
New addition for project			68	

The total number of workers employed by the GFL at present is 278; 94 at Houstin, 92 at McDoom, 92 on shrimp trawlers. The total, after the addition of the 68 workers to be employed for the project, will be 346.

6-3 Maintenance and Operating Costs

In order that the present project may be effectively brought into full play and executed within the framework of the activities of the GFL, it is necessary to estimate yearly maintenance and operating costs to prepare a budget. As part of the financial analysis discussed in the next chapter, it is suggested that maintenance and operating costs for each set of facilities and item of equipment be as indicated in the table below.

Table of Maintenace and Administrative Costs for Project (yearly)

(in thousands of yen)

I t e m	Maintenance Cost
Fishing trawlers	422,550
Ice making facilities	54,734
Shrimp grading machine	16,830
Blast freezer	54,673
Water treatment system	7,957
Refrigerator trucks	15,504
Forklifts	4,984
T o t a l	577,232

General administrative costs for facilities and equipment are calculated based on the profit and loss by department and information made available by the GFL on December 31, 1983. As for general administrative costs exclusive of depreciation, 10% of the cost of each set of facilities and item of equipment is given; the cost is 10% of operating costs excluding depreciation.

6-3-1 Fishing Trawler

- Operation — Days per trip = Operation (9 days)

  Anchorage (1.5 days) Trip (0.5 days) = Total (11 days)

  Days per year = operation days (288 days)

  Anchorage (61 days) Trip (16 days) = Total (365 days)

(1) Fuel

- Consumption — 4,360.5 kg = 5,070.3 lit./trip
- Unit price — ¥343.2/GL (G$5.28)
- Yearly fuel cost — 5,070.3 lit./trip x 32 trip x 0.22 GL/lit. x ¥343.2/GL = ¥12,250,494.-

. Yearly fuel cost 5,070.3 lit./trip x 32 trip
x 0.22 GL/lit. x.¥343.2/GL
= ¥12,250,494.-

(2) Lubricant

. Consumption 50 lit./trip

. Unit price ¥ 1,820/GL (G$28)

. Yearly lubricant cost 50 lit./trip x 32 trips
x 0.22 GL/lit. x ¥1,820/GL
= ¥640,640.-

(3) Fishing gear

. Fish trawl net, wire, rope and others
auxiliaries ¥7,500,000.-

(4) Water and food

. 9.5 days/trip x 4 persons x ¥650/man day (G$10)
x 32 trips ¥790,400.-

(5) Consumables

. Deck, engine, communications and
electricity (yearly) ¥1,500,000.-

(6) Ice

. Fish 16,200 lbs/trip x ice unit price ¥9.75/lbs
x 32 trips ¥5,054,400.-

(7) Crew commissions

. Fish 16,200 lbs/trip x commission ¥9.75/lbs
x 32 trips ¥5,054,400.-

(8) Repairs cost

. Ship bottom cleaning, engine
overhaul, and parts (yearly) ¥2,000,000.-

(9) Insurance

¥3,294,000.-

(10) Berth charge

. 1 per use x 32 trips x ¥10,400/Sail
¥332,800.-

(11) General administrative cost

. Total of (1) - (10) ¥38,414,000 x 10%
= 3,841,000.-

The administrative cost per year for each fish trawl-boats, (1) - (11), therefore, will be ¥42,255,000.- and for ten fishing trawler in total, ¥422,550,000.-

Unit Prices obtained by GFL

- Fuel G$5.28/UKgallon
- Lubricant G$28.0/UKgallon
- Food for crew G$10/person/day
- Ice G$0.15/lbs
- Crew commissions G$0.15/fish lbs
- Berth charge G$160/use

6-3-2 Ice making facilities

(1) Electricity

. Power = 136.35KW, Operating rate = 0.75,
Power unit price ¥55/KW/hour

. Yearly operating days = 300 days
136.35KW x 0.75 x 24 hours x 300 days x ¥55/KW/hour
¥40,495,950.-

(2) Water

. For ice making = 50 tons/day,
Cooling water = 50 tons/day
Total 100 tons/day

. Unit price ¥65/tons, Yearly service days = 300 days
100/tons/day x ¥65/tons x 300 days ..¥1,950,000.-

(3) Catalyst

Assuming that 10% of the R-22 charge volume of all the freezers will be consumed yearly, the R-22 charge volume will be 122 kg in total, 46 kg x 2 ice making machines and 30 kg x 1 cooling machine for ice storage.

· R-22 unit price (W/cylinder) = ¥1,950/kg
122 kg x 10% x 1,950 YEN/kg ¥23,790.-

(4) Repairs and maintenance cost

Replacement of freezing unit, pump parts and oils (yearly) ¥808,000.-

(5) Insurance ¥5,078,000.-

(6) Personnel cost

Stevedoring personel 4 persons x ¥29,250 (G$450) x 12 month ¥1,404,000.-

(7) General administrative cost

Total of (1) - (6) ¥49,759,000 x 10% ¥4,975,000.-

Yearly operating cost therefore, is ¥54,734,000.-

6-3-3 Shrimp grading machine

(1) Electricity

. Power = 14.05KW, Operating rate = 0.9,
Power unit price = ¥55/KW/Hrs

. Operating hour per day = 6 hours,
Yearly operating days = 300 days
14.05KW x 0.9 x 6 hours x 300 days x ¥55/KWH
¥1,251,855.-

(2) Water

Charge per day 15 tons x 300 days x ¥65/ton
¥292,500.-

(3) Repairs and maintenance cost

Replacement of bearings, belts, anc oil
¥1,255,000.-

(4) Insurance

¥1,737,000.-

(5) Personnel cost

46 persons x ¥19,500/month (G$300/month) x 12 month
¥10,764,000.-

(6) General administrative cost

Total of (1) - (5) ¥15,283,000.- x 10%

¥1,530,000.-

The yearly operating cost, therefore, will be

¥16,830,000.-

6-3-4 Air blast freezer

(1) Electricity

. Power = 168.1KW, Operating rate = 0.6

Power unit price = ¥55/KWH, Yearly operating days = 300 days 168.1KW x 0.6 x 24 hours x 300 days x ¥55/KWH ¥39,940,560.-

(2) Potable water

. Water for treatment = 10 ton/day, Cooling water 40 tons/day Total 50 ton/day

. Yearly operating days = 300 days

50 tons x 300 days x ¥65/ton ¥975,000.-

(3) Catalyst

Assuming that 10% of the charge volume of all the freezers will be consumed yearly,

. Charge volume 300 kg x 3 rooms = 2,400 kg

. Unit price ¥1,950/kg (W/cylinder)

2,400 kg x 10% x ¥1,950/kg ¥468,000.-

(4) Repairs and maintenance cost

Replacement of freezer unit, pump parts and oil (yearly)

¥1,370,000.-

(5) Insurance

¥5,077,480.-

(6) Personnel cost

8 persons for fish/shrimp processing

8 persons x ¥19,500/month (G$300) x 12 month

¥1,872,000.-

(7) General administrative cost

Total of (1) - (6) ¥49,703,000 x 10% ¥4,970,000.-

The yearly operating cost, therefore, will be ¥54,673,000.-

6-3-5 Water treatment system

(1) Electricity

· Power = 3.7KW, Operating rate = 0.6

Power unit price = ¥55/KWH

Yearly operating days = 300 days x ¥55/KWH

3.7KW x 0.6 x 24 hours x 300 days x 55 YEN/KWH ¥879,120.-

(2) Chemicals (NaOCl)

. Consumption = 9 kg/day, Unit price ¥500/kg (12% solution)

9 kg x 300 days x ¥500/kg ¥1,350,000.-

(3) Maintenance cost

Pump parts ¥70,000 Activated charcoal as filter material, etc. ¥2,278,000.-

(4) Insurance

¥1,323,000.-

(5) Personnel cost

Maintenance personnel 4 persons x ¥29,250 (G$450) x 12 month ¥1,404,000.-

(6) General administrative cost

Total of (1) - (5) ¥7,234,000.- x 10% ¥723,000.-

The yearly administrative cost, therefore, will be ¥7,957,000.-

6-3-6 Refrigerator' trucks

(1) Fuel

· Travelling distance = 50 miles ≒ 161.6 km/day, Fuel 3 km/lit.

. Operating days = 210 days/year, Unit price ¥456.3/GL (G$7.02)

161.6 km/day ÷ 3 km/day x 210 days/year
x ¥456.3/GL x 0.22 GL/lit. ¥1,133,000.-

(2) Lubricant

· Replacement at a time = 10 lit.

Frequency of replacement = once per/1,500 km

Unit price ¥1,820/GL (G$28)

161.6 km/day x 210 days/year ÷ once per/1,500 km
x 10 ℓ x ¥1,820/GL x 0.22 GL/lit. ¥90,586.0

(3) Repair cost

Parts replacement, overhaul and others (yearly)
¥1,500,000.-

(4) Insurance

¥922,000.-

(5) Personnel cost

3 persons per truck x ¥29,250/month (G$450) x 12 month
¥1,053,000.-

(6) General administrative cost

Total of (1) - (5) ¥4,699,000 x 10% ¥469,000.-

The yearly operating cost, therefore
will be
¥5,168,000 x 3 trucks ¥15,504,000.-

6-3-7 Forklift

(1) Electricity

. Power - 9.92KW, Service hours = 5 hours/day

9.92KW x 5 hours/day x operating days 300/year
x Unit price ¥55/KWH ¥818,400.-

(2) Repairs cost

Parts replacement calculated as yearly
average ¥154,500.-

(3) Insurance

¥239,000.-

(4) Personnel cost

3 operators x 12 month x ¥29,200 (G$450) ¥1,053,000.-

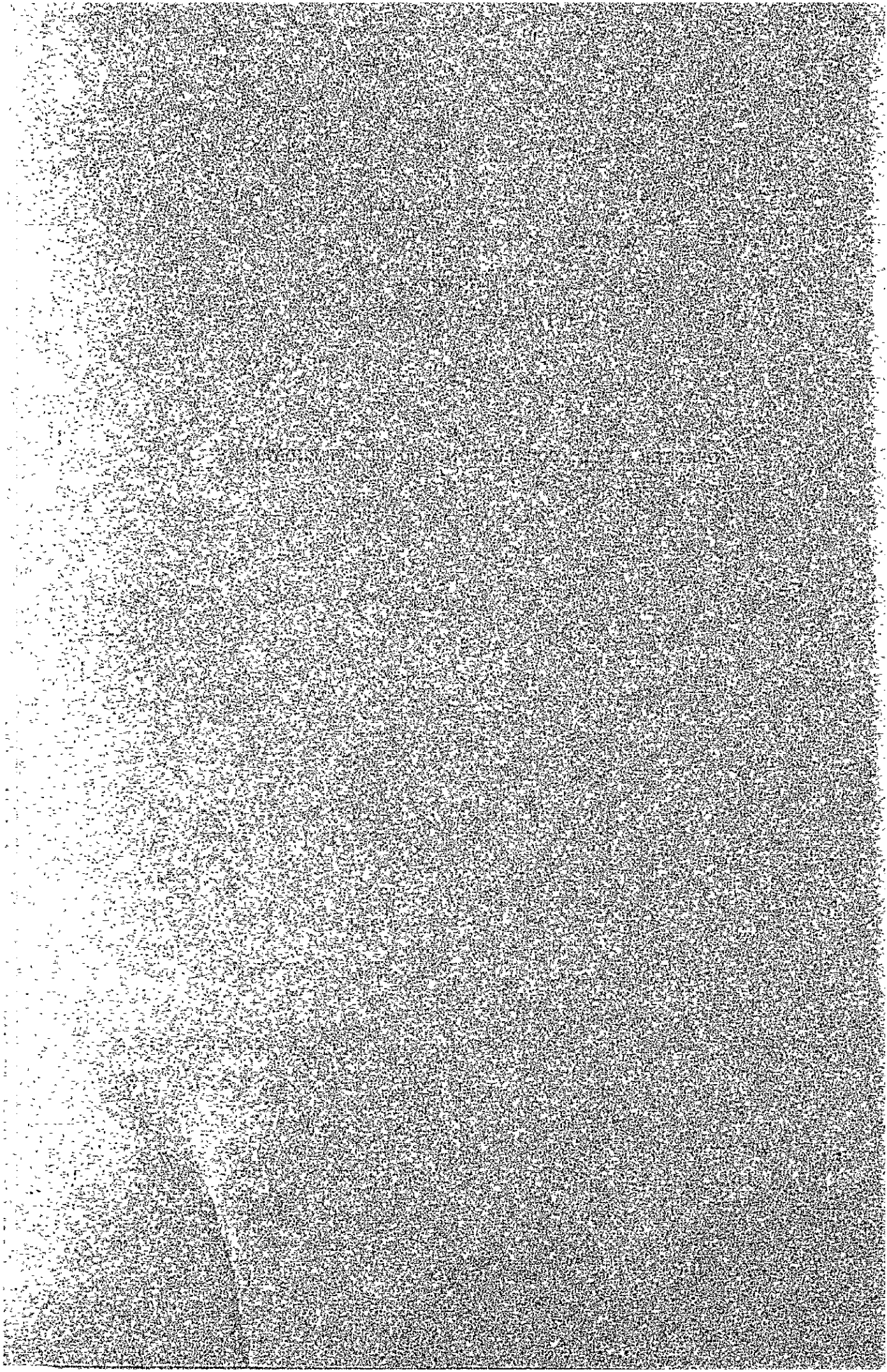
(5) General administrative cost

Total of (1) - (4) ¥2,265,000 x 10% ¥227,000.-

The yearly operating cost, therefore, will be

¥2,492,000 x 2 forklifts ¥4,984,000.-

CHAPTER VIII CONCLUSION AND RECOMMENDATIONS



CHAPTER VII PROJECT EVALUATION

The project is the fourth in a series of programmes being carried out as part of the Demerara Fishing Port Consolidation Plan, which plays a central role in the promotion of the fishing industry of the Republic of Guyana. The project is intended to help stabilize the economy of the nation that was greatly damaged by the recent worldwide economic recession. Especially, the plan aims at increasing foreign currency through expansion of shrimp exports and the introduction of fish trawlers. The significance of the project, in this regard, is considrably high.

The completion of the Fourth Demerara Fishing Port Consolidation Plan, more or less completes a well-balanced system of production, processing, and distribution for the offshore fishing industry of Guyana with Demerara Port as the main base. Therefore, the project may be best evaluated along with the confirmation of anticipated profits and costs, analysis of financial aspects, and studies on anticipated economic effects; in other words, the project should be examined in terms of whether profits can be expected in their own right without bringing pressure on management of the GFL, which is the executing body of the project.

7-1 Financial Analysis of Project

7-1-1 Operating Costs

The annual operating costs of the project were estimated by adding depreciation to general administrative costs as discussed in 6-3 "Maintenance and Operating Cost".

The project is a grant aid of the Japanese government and, therefore there is no initial investment on the

part of the GFL. Depreciation, although not necessary for this reason, is nevertheless considered assuming that replacements will eventually be required. According to the accounting policies applied in the GFL, the service life of each set of facilities and items of equipment are culculated at 3 to 10 years and depreciation rate of those is calculated at 10 to 25%.

The table below shows the effect of adding depreciation of facilities and equipment to the maintenance and administrative costs obtained in 6-3.

(2) Operating Costs for Project

(thousands of yen)

I t e m	Depreciation	Maintenance Costs	Operating Costs
Fishing trawler (incl. fishing tools)	74,126	422,550	496,676
Ice making facilities (incl. pier)	11,212	54,734	65,946
Shrimp grading machine	3,909	16,830	20,739
Blast freezer	11,424	54,673	66,097
Water treatment system	2,977	7,957	10,934
Standby generator	3,273	-	3,273
Refrigerating trucks	12,446	15,504	27,950
Forklifts	2,152	4,980	7,132
Fish boxes	6,341	-	6,341
Trawl fishing gears	67,944	-	67,944
Total	195,804	577,228	773,032

7-1-2 Revenues from Facilities

(1) Fishing Trawler(10)

. Catch per boat per trip 16,200 lbs
(about 7.3 tons)

. Lot price = G$1.9 (¥123.5)/lb

16,200 lbs/trip/boat x 32 trips x 10 boats
x ¥123.5
=¥640,224,000.-

(2) Ice making facilities

. Lot price of plate ice to other departments
¥9.75/lb (G$0.15)

30 tons x 300 days operation x ¥9.75/lb
x 2,204 lbs/to
¥193,401,000.-

(3) Shrimp grading machine

. It is capable of handling 8,000 lbs/day; the volume, in order to be conservative, however, performance in 1983, 1,040,000 lbs, will be used for calculation.

. As revenues from use of shrimp grade, ¥65/lb (G$1) will be assumed.

1,040,000 lbs x ¥65/lb ¥67,600,000.-

(4) Air blast freezer

. Volume handled = 15 tons/day

Operating days = 300 days

Freezing charge = ¥9.75/lb

15 tons x 300 days x ¥9.75/lb x ¥2,204/lb
¥96,700,000.-

(5) Water treatment system

. Shrimp treated = 1,040,000 lbs (Pertormance
om 1983)

. Increase in import price by improvement in quality of water treated

1,040,000 lbs x ¥48.75/lb ¥50,700,000.-

(6) Refrigerator truck (3)

. Sales = 7 tons/day

Operating days = 210 days/year

Sales commission = ¥3.25/lb (G$0.05)

7 tons/day x 210 days/year x ¥3.25/lb x 2,204 lbs/ton x 3 ¥31,588,000.-

7-1-3 Approximate Revnue and Expenditure for the Project

(in thousands of yen)

I t e m	Revenue	Operating Cost	Balance (approx.)
Fishing trawler (10)	640,224	496,676	143,548
Ice making facilities	193,401	65,946	127,455
Shrimp grading machine	67,600	20,739	46,861
Air blast freezer	96,700	66,097	30,603
Water treatment system	50,700	10,934	39,766
Standby generator	-	3,273	▲ 3,273
Refrigerator trucks (3)	31,588	27,950	3,638
Forklifts (2)	-	4,980	▲ 4,980
Fishing gear	-	67,944	▲ 67,944
Fish boxes	-	6,341	▲ 6,341
Total	1,080,213	770,880	309,333

The forecast of revenue and expenditure is for an average fiscal year after completion of the present project. As far as this forecast is concerned, the project is considered not likely to cause the GFL any financial difficulties, but will contribute a great deal to its business.

What appears to be a major problem in this forecast of revenue and expenditure is the establishment of a profit-and-loss unit price for the facilities and equipment; the GFL intends to carry on its business on the basis of the unit prices used in the calculation. The purpose of the project, however, is to provide a low cost source of protein for the Guyanese; it is now left to the Guyanese government to decide whether it should give priority to its own policy or the business of the GFL.

7-2 Expected Benefits of the Project

When we assume that the GFL will be successful in attaining the tonnage of fish being aimed at through the introduction of fishing trawlers and no appreciable fluctuation in the price of shrimps, which enjoy worldwide demand, will occur immediately before and after the completion of the project, we can expect the considerable benefits summarized as below.

(1) Fishing trawlers will be used exclusively to catch fish; therefore, provision of protein to the citizens at a low cost will be possible.

(2) Fishing trawlers will make it easier to catch highly priced fish such as a sea bream, a kind of grouper which shrimp boats cannot catch, thus export expansion can be expected.

(3) Revenues from exports will be increased by improving quality through better shrimp processing methods.

(4) Application of various fishing methods using fishing trawlers will be possible.

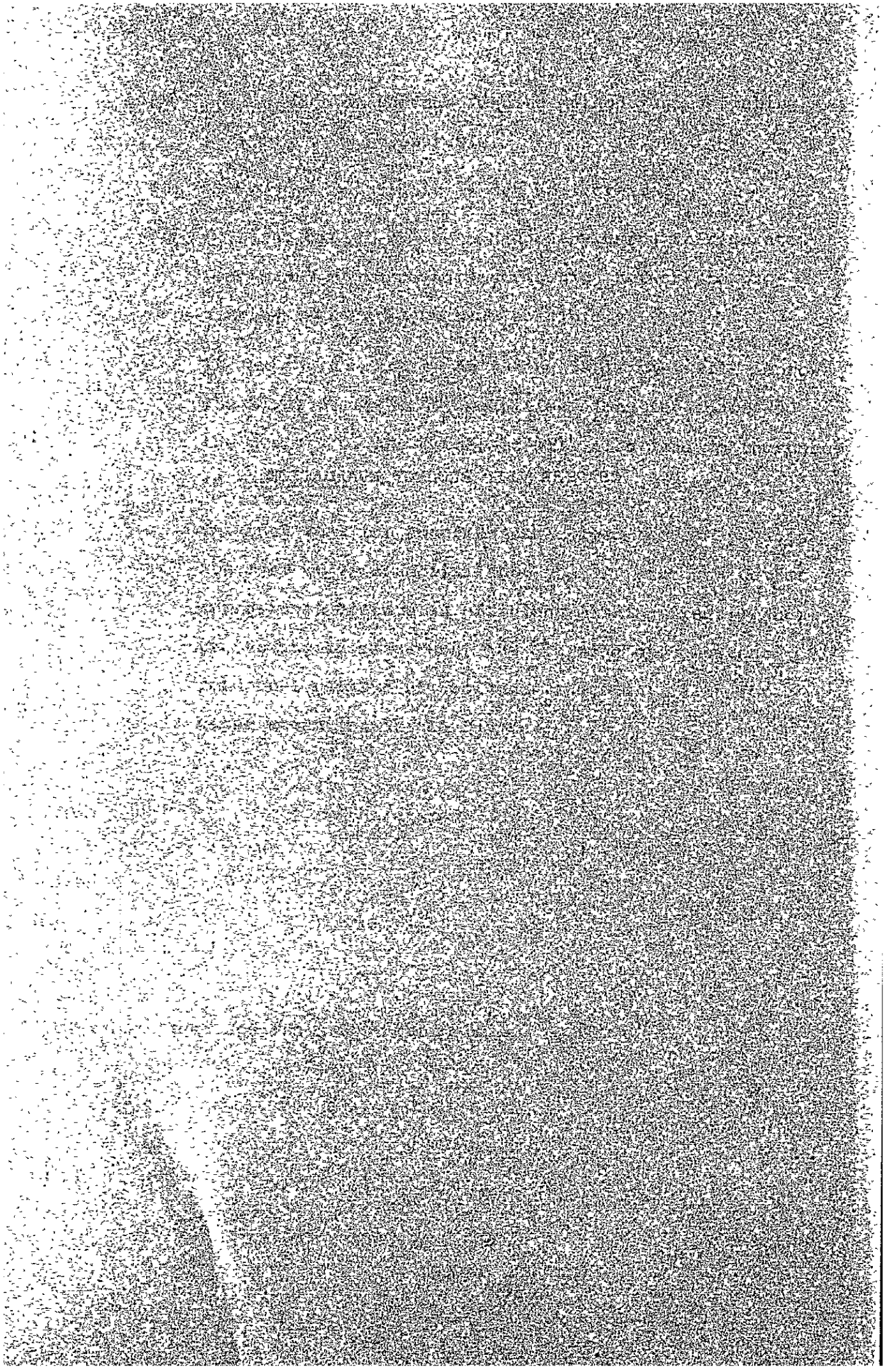
(5) Employment opportunities can be increased.

(6) Quality control can be enhanced by using refrigerated trucks and an improved distribution network to provincial towns will be made possible.

(7) The extension of the ice making facilities will improve the lives of fishing communities along the coast and the quality of the catch; it will also lead to increases in the catch.

In order that the benefits summarized above may be achieved it is essential that the GFL, through better management, operate an efficient fishing fleet. Where processing is concerned, the training of competent personnel capable of business management calls for close attention in the future.

CHAPTER VII PROJECT EVALUATION



CHAPTER VIII CONCLUSION AND RECOMMENDATIONS

8-1 Conclusion

While the past Demerara Fish Port Projects which were concerned with the infrastructure on-land, such as the pier, building, this fourth Demerara Fish Port Project concentrates on increasing deep-water fish catches and improving the quality of shrimps for export, by improving processing facilities and introducing trawlers.

This project functionally covers all aspects from production to sale and after completion of the project, Demerara Fish Port will be equipped as a total fishery base.

The GFL is a state owned enterprise with total authority and responsibility over the development of the fishing industry and processing in Guyana. Since the GFL has technicians to operate trawlers and related facilities, and a training curriculum for its own personnel, no technical problems are apprehended.

The management expenses for the project may be secured if the GFL puts its highest priority on: 1) efficient fishing boat operation to increase catches of shrimp, since frozen shrimp is a key export product; 2) the active maintenance project for importing of engine parts and other mechanical equipment required for the fishing operation. With the spirit of self-help, the GFL and the Government of Guyana are expected to, now and in the future, continue to operate the fishing boats efficiently, to build an enterprise of good standing and to use as a main

stay to earn foreign currencies and promote national economy.

The execution of this project is extremely significant. In terms of making the best use of past three projects and to make them effective and worthwhile, furthermore therefore Japanese grant aid for this project seems quite appropriate.

8-2 Recommendations

As the GFL was established quite recently (in 1979) as a public enterprise and it has inevitably run a deficit, it is required to concentrate on managerial reform. The first goal of this project, however, is to supply cheap fish protein to the people of Guyana. This may not directly improve the managerial ability of the GFL per se, but as a public enterprise, the GFL must realize the significance of this goal to establish reasonable sales prices.

Concerning the early reform of management from managerial and technical points of view, we would like to make the following suggestions:

1) Personnel

   a) It is necessary to activate the organization and increase labor productivity. To make this possible, it is advisable that the organization shall abandon sectionalism, simplify channels of command and promote the efficient participation of the personnel.

   b) In order to establish feasible plan, it is required to assign capable staffs with a thorough knowledge of fishery, process, and distribution procedure to take

part in the decision making of the management.

c) It is necessary to establish a long-term Training programme for not only engineers but also planning managers.

2) Management

a) It is necessary to compare the estimated budget and the results achieved. If the goal was not accomplished, investigate the possible causes and make use of the experience in future operations. Furthermore, clarify with precision on the systematic responsibilities of management.

b) It is required that the process of attaining the objectives of the plan shall be done in cooperation with all the personnel (not only the manager in charge).

3) Administrative Work

a) It is advisable to understand the distinctiveness of the fishing industry and place most importance on the efficient operation of the fishing boats.

b) It is needed that the personnel shall make every effort to increase output at the processing plant.

c) In order to obtain efficiency, the systematic, well planned operation is necessary.

d) It is necessary to shorten lay days of fishing boats. More specifically, the annual fishing boat operation rate should be over 80%. To obtain this rate, it is necessary that the anchorage of the shrimp trawlers

shall be limited to three days and fish trawlers to one day.

The above items are specific suggestions concerning managerial reform and the execution of the project. The survey raised some special points of concern that are worth mentioning here. The delay in acquiring a minimum of mechanical parts increasingly aggravated the mechanical problems found in machines and other facilities. It is advisable to take systematic measures to budget for obtaining necessary spare-parts so that repairs can be made while the damage is not very serious.

ATTACHED DOCUMENTS

(1) Study Team Members

	Name	Position and Specification	Affiliation
Chief	Toshimi Ojima	General Manager	Fisheries Marketing Division, Fisheries Administration Department, Fisheries Agency
Team Member	Kimito Morisawa	Project Collaborator	International Co-operation Division, International Affairs Department, Economic Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries
Team Member	Masahiro Nishimura	Project Manager	JICA Kanazawa Pref. International Fisheries Research Center, Research Office
Team Member	Tokuichiro Kamei	Fisheries Development, Fishing Gear, Fisheries Act	D & A Engineering Co., Ltd.
Team Member	Yasunari Koyanagi	Fishing Boats	D & A Engineering Co., Ltd.
Team Member	Tsuneo Honma	Fisheries Marketing, Processing Facilities	D & A Engineering Co., Ltd.

(2) Study Interary

	Month/ Date	Day	Study Itinerary
1	8/14	Tues.	12:00 Departure from Tokyo (JL-006)
			----- International Date line -------
1	8/14	Tues.	11:30 Arrival at New York
2	8/15	Wed.	09:30 Departure from New York (PA-403)
			17:05 Arrival at Caracas
3	8/16	Thu.	10:00 Formal visit to the Embassy of Japan. Briefing on present situation in Guyana.
4	8/17	Fri.	12:15 Departure from Caracas (BW-381)
			13:30 Arrival at Port of Spain
			17:00 Departure from Port of Spain (BW-465)
			19:00 Arrival at Georgetown
5	8/18	Sat.	-Formal visit to the Head of the Division of International Economic Co-operation
			-Formal visit to the Ministry of Agriculture
			-First Joint Meeting at Guyana Fisheries Ltd. (Explanation of the inception report. Question sheet)
6	8/19	Sun.	-Domestic Conference - Briefing given by a specialist of Co-operative Foundation of Overseas Fishing
7	8/20	Mon.	-Inspection of the present condition of the previous project at GFL Houston Base
			-Conference with GFL members (Scope of work of inception report)
8	8/21	Tues.	-Conference with Principal Fisheries Officer of Ministry of Agriculature (Fisheries Promotion Plan)
			-Conference with GFL members
			- Inspection of McDoom Processing Plant

	Month/ Date	Day	Study Itinerary
9	8/22	Wed.	-Formal visit to Mr. Barrow, Honoury Consul for Japan
			-Conference with GFL members
			-Briefing given by a representative of Yutaka Fisheries
10	8/23	Thu.	-A visit to GUYSUCO Fish Farm with the Minister of Agriculture, Forestry and Fisheries (about 70 miles from Georgetown)
			-Questions about fish farming from the Minister at the Ministry of Agriculture, Forestry and Fishing
11	8/24	Fri.	-Conference with GFL members (Receive explanations on material submitted)
			-McDoom processing plant survey
12	8/25	Sat.	-Attend the GFL Shrimp Trawler Completion Reception sponsored by IDB Credit
			-Inspection of the newly-built shrimp trawler
			-McDoom plant survey. -Meeting with Mr. Klautky, Construction Consultant.
			-Make prior arrangements in relation to customs
13	8/26	Sun.	-Organization of materials at GFL office
14	8/27	Mon.	-Conference with GFL members. -Inspection of Electricity service facilities in Georgetown
			-Inspection and conference at Guyana Shipping Co.
			-Visit Guyana National Engineering Co. Meeting with related members.
			-MINUTES Conference (GFL members and the survey committee)

	Month/ Date	Days	Study Itinerary
15	8/28	Tues.	-Visit GFL Direct Sales Stores - Shell, Road, Kitty
			-Sign minutes at GFL President's room
16	8/29	Wed.	-Ojima committee Chief, Morisawa, and Nishimura - 10:00 Departure from Georgetown (BW-462) via Caracas
		Wed.	-Visit Friendship and Slipway
			-McDoom plant survey
17	8/30	Thu.	-Inspection of repair facilities of FRP Boat at United Plastic Works
			-Conference with GFL members. Collection of materials
			-Briefing given by Yutaka Fisheries
			-Visit Georgetown Sea Food
18	8/31	Fri.	-Conference with GFL members. Collection of materials
			-McDoom plant final survey
			-Meeting with the specialist of Cooperative Foundation of Overseas Fishing
19	9/1	Sat.	09:00 Departure from Georgetown (BW-462)
			09:00 Arrival at Port of Spain
			15:15 Departure from Port of Spain (AA-584)
			21:22 Arrival at New York
20	9/2	Sun.	13:30 Departure from New York (JL-005)
			-------In-ernational Date Line---------
21	9/3	Mon.	16:10 Arrival at Tokyo

(3) List of Interviewers in Guyana

Name	Affiliation	Position & Specification
CDES. W. Murray	International Economic Co-op.	Head of the Division
" L. Semple	"	Desk Officer
" F. Dorway	Ministry of Agriculture	Permanent Secretary
" R. Charles	"	Chief Fisheries Officer
Dr. S. Dasilva	"	Minister
CDES. J. Bart	GUYSCO	Administrative Manager
" F. Forte	"	Agriculture Officer
" R. Williams	Guyana Fisheries Ltd.	Executive Chairman
" G. Clarke	"	Executive Director
" C. Welcome	"	Special Project Supt.
" B. Blackman	"	Fleet Manager
" C. Cholmondeley	"	Asst. Special Projects Officer
" M. Liverpool	"	Maintenance Supt.
" G. Small	"	Plant Manager
" B. Persaud	"	Fleet Manager (Asst.)
" R. Gardner	"	Marketing Supt.
" A. Henry	"	Fleet Accountant
" C. Thomas	"	Administrative Accountant
" H. Barrow		Honorary Consul of Japan
" R. Jeffers	Guyana Fisheries Ltd.	Electronics Engineer
" E. Shepherd	"	Dock Supervisor
" M. Hubbard	"	Winch Engineer

Name	Affiliation	Position & Specification
CDES. R. Ferguson	Guyana Shipping Co-op.	Senior Customs Clerk
" Pooran	"	Wharf Manager
" W. Bhola	Guyana N. Engineering	Executive Director
" K. Barrow	"	"
" S. Bhimal	Guyana Fisheries Ltd.	Confidential Secretary S.P.S.
" D. Santos	Friendship Slipway	Manager
" P. Persaud	United Plastic Works	Manager
" P. Taylor	Guyana Fisheries Ltd.	Drydock Supervisor

(4) Conference Minutes - Copy

MINUTES OF DISCUSSION

ON

THE DEMERARA FISH PORT COMPLEX PROJECT

IN

THE CO-OPERATIVE REPUBLIC OF GUYANA

In response to the request made by the Government of the Co-operative Republic of Guyana for the Demerara Fish Port Complex Project (hereinafter referred to as "the Project"), the Government of Japan has sent, through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), a team headed by Mr. Tatsumi Ojima, Fisheries Administration Department Fisheries Agency, to conduct a Basic Design Study from August 14 to September 3, 1984. The team has carried out a field survey, held a series of discussions and exchanged views with the authorities of the Government of Guyana and other organizations concerned with the Project.

...2

尾

As a result of the study and discussions, both sides have agreed to recommend to their respective Governments to examine the results of the study attached herewith towards the realization of the Project.

GEORGETOWN, AUGUST 28th 1984..

尾島 起己

Mr. Tatsumi Ojima

Head of the Japanese,
Basic Design Survey Team.

Mr. Robert E. Williams, M.P.

Executive Chairman,
Guyana Fisheries Limited.

Mr. Reuben Charles

Principal Fisheries Officer,
Ministry of Agriculture.

M I N U T E S

1. The objective of the Project is to provide fishing boats, facilities and equipment for the Demerara Fish Port Complex in order to enhance fisheries activities aiming at the self-sufficiency of fish and fish products and the promotion of shrimp export.

2. The Guyana Fisheries Limited is responsible for the implementation of the Project.

3. The Japanese Team will convey to the Government of Japan the desire of the Government of the Co-operative Republic of Guyana that the former takes necessary measures to co-operate in implementing the Project and provide the necessary fishing boats and equipment listed in Annex I within the scope of Japanese economic co-operation in grant form.

4. The Government of the Co-operative Republic of Guyana will take the necessary measures listed in Annex II on condition that the grant assistance by the Government of Japan is extended to the Project.

5. Both sides confirmed that the Japanese Team explained the Japanese Grant Aid Programme and the Guyana side understood it.

尾

ANNEX I

According to priority, the following items are requested by the Government of the Co-operative Republic of Guyana.

1. One 8,000 lbs/day Shrimp Grading Machine.

2. Twenty (20) ton (approximately) Fishing boats with 10 % spare parts.

3. Two 15 ton Ice Plants.

4. Two cabs, four Refrigerated containers with 5,000 fish boxes.

5. Two Fork Lifts.

6. Water Treatment and Purification Equipment.

7. One year's supply of Fishing Gears for 20 ton (approximately) Fishing boats.

8. One 15 ton capacity Blast Freezer.

9. Standby Generator.

ANNEX II

Items to be undertaken by the Government of the Co-operative Republic of Guyana are as follows :

1. To provide data and information necessary for the basic design.

2. To secure mooring space for fishing boats.

3. To provide facilities for distribution of water, electricity and drainage.

4. To exempt the Japanese nationals concerned from customs duties, internal taxes and other fiscal levies imposed in the Co-operative Republic of Guyana with respect to the supply of the products and services for the Project.

5. To provide the necessary permissions, licences and other authorizations for carrying out the Project.

6. To bear all expenses necessary for the execution of the Project other than those to be borne by the Japanese Grant.

7. To maintain and use properly and effectively the fishing boats, facilities and equipment purchased under the Grant.

8. To ensure prompt unloading, processing of Duty Free concessions and prompt internal transportation therein of the products purchased under the Grant.

"YEAR OF RESOURCEFULNESS"

GUYANA FISHERIES LIMITED
Demerara Fish Port Complex, Houston, Gr. Georgetown, Guyana, S.A.
Tel : 58960, P.O. Box 10385, Cable : GUYFISH, Telex : 2236

1984-08-31

Mr. Tatsumi Ojima
Head of the Japanese
Basic Design Survey Team
Ministry of Agriculture
JAPAN.

Dear Mr Ojima :

On behalf of Guyana Fisheries Limited, I would like to express our deep appreciation to you and your study team for working so conscientiously to ensure that all the information required by the Government of Japan was in a presentable manner, thereby allowing our request for assistance for Phase IV to be transmitted for consideration.

We would like to assure you that, should our request be considered, Guyana Fisheries Limited, supported by the Government of Guyana, will endeavour to service and maintain all the facilities given to us under Phase IV, making adequate provisions, both financial and otherwise, for the upkeep of the project.

Thanking you for your kind consideration and co-operation.

Yours co-operatively,
GUYANA FISHERIES LIMITED

R E Williams, M.P.
EXECUTIVE CHAIRMAN

cc: Executive Director
Special Projects Superintendent

REW/cac

Cooperative Republic of Guyana - Broad Description

Nature and Environment

Cooperative Republic of Guyana is located on the north-eastern coast of South America, north of the equator. It is bordered by Surinam to the east, Brazil to the south, and Venezuela to the west. It faces the Atlantic Ocean with a coastline of 430 km (about 230 miles). Its total area is 215,000 km^2. The narrow coastal plain is 320 km long and extends 15 to 60 km inland. Most of this area lies 1 m to 0.5 m below the high-tide level, but the plain is drained and protected by dikes, dams and canals.

94% of the country's population inhabit the coastal region, although this area covers only 5% of the entire national territory. The coastal plain to within 15 km inland is used for the intensive cultivation of sugarcane and rice.

Most of the country consists of uninhabited highlands. The equatorial region covered by rain forests, hills, and swamps, is rich in mineral deposits such as bauxite, gold, and diamonds. In the eastern area of this region, the soil consists of sand and clay, and is covered by hardwood and evergreen forests. In the rural south-western region, lies the vast Rupununi savanna.

The area is well-known for its livestock pastures. The Pakaraima mountains with its grasslands and forests rise in the western region. The country's highest peak Roraima (2774 m) is in this region.

Many rivers flow through the country. The Demerara, Berbice, and Essequibo are the main rivers. There are numerous rapids and waterfalls in the upper reaches of the rivers. The Kaieteur Falls of the Potaro River with a drop of 226 m is five times higher than the Niagara Falls.

Guyana's typical equatorial climate is characterized by two rainy seasons and two dry seasons. The rainy and dry seasons alternate in long and short periods during the year. The long wet season on the coast starts in mid April and lasts until mid August. At the end of this season, the long dry season starts and lasts until mid November. Then, the short wet season starts and lasts until mid February when the short dry season begins and continues until mid April.

Rainfall varies from year to year. The annual average rainfall is as follows: New Amsterdam - 2,030 mm, Georgetown- 2,290 mm, Northwestern region - 2,790 mm. The forested and mountainous area has a high annual average rainfall of 3,560 mm, but the inland grasslands has below 1,520 mm.

The temperature of the coastal region varies from 32°C to 24°C and the humidity is about 70% throughout the year. The heat and humidity along the shore are mitigated by the trade winds from the ocean.

Guyana's population is 920,000 according to the U.N. monthly statistics report issued in October, 1983. The major racial groups are Indians (over 50% of the total and Africans (about 40%). The Amerindians comprise only 5% of the total and they inhabit the inland forests and plains.

Economy and Society

The Cooperative Republic of Guyana became independent from the U.K. in 1966, and in 1977 became a cooperative republic with a president as ceremonial head of state. On October, 1980, the country adopted a new constitution with a president with executive power and the name of the country was changed to the Cooperative Republic of Guyana on the basis of the people's strong ideology of "cooperation."

Since independence, the government has been following a socialist policy which allows the state to participate in the country's economic system. The government has already nationalized most of the foreign rights and interests in the economic community. Public enterprises under the supervision of GUYSTAC consists such industries as: mining, sugar, airline, transport, electricity, telephone and telegraph, agriculture, forestry, fishery, insurance, banks, shipbuilding, newspapers and radio broadcasting. Other than the public sector mentioned above, the economy is divided into a cooperative sector and a private sector. By investing in all sectors and encouraging cooperation among the three sectors, the government plans to stimulate economic development, increase national income and promote equal distribution of income.

Guyana's economy relies largely upon cash crops such as sugar cane and rice. Bauxite production is an important source of foreign currency. These three sources of national income constitute 40% of the Gross Domestic Product and around 80% of foreign currency earnings. The chart below shows the export and import record by commodity.

◦ Export and Import Record by Commodity

(Unit: US$1 million)

Commodity	1979	1980	1981
Sugar	89.5	117.8	101.9
Rice	31.7	34.3	36.6
Calcined Bauxite	85.6	119.8	86.9
Dried Bauxite	21.9	23.4	26.0
Alumina	21.1	44.8	30.6
Others	41.5	42.6	14.2
Total Amount of Goods	291.3	382.7	317.8
Others	18.6	20.4	6.9
T o t a l	309.9	403.1	324.7

(IMF Report)

o Import Record

(Unit: US$ 1 million)

Commodity	1979	1980	1981
Consumer Goods	49.1	43.3	53.6
Intermediate Goods	170.5	226.8	283.7
(Fuel and lubricant are includes among the intermediate material)	(76.6)	(120.0)	(139.9)
Capital Goods	48.6	64.1	72.0
Other	1.8	2.4	2.8
T o t a l	270.0	336.6	412.1

(IMF Report)

The economy suffered substantial damage in the 1970's caused by political crisis, frequent strikes and bad weather. This resulted in a severe shortage of foreign currency and consumer goods. From the second half of fiscal 1970 to 1980, the country regained political stability and Gross Domestic Product is increasing steadily.

o GDP by Industrial Sector

(Unit: US$ 1 million)

	1978	1979	1980 (Estim.)
Agriculture and Fishery	106.0	102.7	122.4
Mining	67.2	75.6	86.7
Manufacturing	55.7	57.2	63.5
Construction Service	215.7	223.1	251.3
T o t a l	444.6	458.6	523.9

(IMF Report)

The country's economy, however, seem to be restrained because of the depressed international market for bauxite and sugar. In addition, the sudden rise in oil prices after the oil shock caused foreign currency problems, since Guyana imports all its oil. The oil imported by the end of the 1970's accounted for 28% of total imports, but the percentage increased to 33.9% at the beginning of the 1980's. Total exports in 1980 and 1981 increased by 31.4% and 9.1% respectively compared to total exports in 1979, but since oil imports increased the trade balance went into deficit.

o International Balance of Payments

(Unit: US$ 1 million)

	1979	1980	1981
CURRENT GALANCE	83.1	131.6	187.0
Export	319.8	403.1	347.0
Import	364.6	493.7	440.0
Trade Balance	54.8	90.6	93.0
Invisible Trade Balance	28.7	35.3	36.0
Transfer Payments	0.4	5.7	6.0
BALANCE OF CAPITAL	30.0	44.3	132.0
OVERALL BALANCE	53.1	87.3	88.0

(IMF Report)

Even after 1982, Guyana's economy continued to be sluggish because of the worldwide depression of the bauxite and sugar markets.

It is to be desired that, Guyana blessed with vast fertile land and rich natural resources should exploit widely the country's resources, in order to achieve self-sufficiency in food, clothings and housings so as to make the economy less vulnerable to fluctuating world prices for its export commodities and to rising oil import price.