

SECTION 5 PLAN ASSESSMENT

5-1 Financial Evaluation

The purpose of this financial assessment is not to analyze profitability but rather to establish whether the facilities and materials to be furnished under a grant-in-aid can be operated without placing a financial burden on the Government of Mozambique. This analysis is predicated on the net production by the net-making facility and the catch volume of the Fishery Complex, as established in Section 2.

5-1-1 Net-Making Facility

In Mozambique, prices for fishing materials and supplies are, as a general principle, set by adding operating expenses to basic cost price. At present, cost prices are unstable, varying considerably on the basis of the particular origin country of imports, the type of material, or the time of importation. For this reason, we understand that there is no consistency in retail net prices.

Expenses (including transport costs) are generally about 35% of cost price when sold by the EQUIPESCA branch directly to fishermen. When sold through dealers, EQUIPESCA takes 15% and the dealer then adds 20-30% to his cost.

In this analysis, we assume that the CIMA selling price is the EQUIPESCA buying price. Since the selling price is set after expenses, the cost price is always covered. Thus, so long as we set the evaluation period for financial analysis as the useful life of the building, the operation will definitely break even. There is, therefore, no real meaning in making a financial analysis. For this reason, we will now calculate selling prices on the basis of (1) achieving production targets and (2) operating at present levels of efficiency.

(1) Selling Price Based on the New Net-Making Facility
Achieving the 120 Ton Production Target

Based on a survey of the Japan External Trade Organization, the average FOB price per kg of multi-filament nylon netting exported to Mozambique from Japan in 1980 and 1981 was ¥1,357. Adding ¥111/kg for ocean freight and ¥6/kg for insurance, the price CIF Maputo becomes some 236 MT/kg. Assuming this to be CIMA's cost price, selling value is determined as follows:

$$\begin{aligned} & \text{Cost price (236 MT x 120,000 kg) + Operating expenses} \\ & (2,519,000 \text{ MT/yr}) + \text{Depreciation on cost price (2,491,000} \\ & \text{MT/yr)} = \text{Selling value} \dots\dots 33,330,000 \text{ MT/120,000 kg} \end{aligned}$$

Accordingly, the sales price to EQUIPESCA is 278 MT/kg and the retail price at a general store becomes 403 MT/kg.

(2) Selling Price Based on Present Limits of Production Efficiency

Present production efficiency is 0.005289/kg per hour per machine shuttle, with the total number of machine shuttles at 2,310. Thus, the selling price works out to:

$$\begin{aligned} & \text{Cost price (236 MT/kg x 0.005289/kg x 2,310 shuttles)} \\ & \text{x 16 hours x 260 days + Operating expenses (2,519,000} \\ & \text{MT/yr)} + \text{Depreciation (2,491,000 MT/yr)} \\ & = \text{Sales Value} \dots\dots 17,004,741 \text{ MT/50,825 kg} \end{aligned}$$

Accordingly, the sales price to EQUIPESCA becomes 334 MT/kg, with the retail price at a general store 484 MT/kg.

If the operating efficiency for the new facility can be improved over the levels postulated in the calculations, the retail prices of nets to artisanal fishermen, can be further reduced by some 40-50% from present levels based on those of the existing facility.

5-1-2 The Sopinho Fisheries Complex

(1) Estimated Sales

1) Sale of Catch

In Section 2, we set the catch by Complex vessels at 185 tons per year. If we assume now that 10% of the total catch will be first grade fish, 10% second grade, and 80% third grade, catch sales revenue becomes:

1st-grade	34 MT/kg x 18,500 kg =	629,000 MT
2nd-grade	23 MT/kg x 18,500 kg =	425,500
3rd-grade	8 MT/kg x 148,000 kg =	<u>1,184,000</u>
	Total	2,238,500 MT

2) Commissions on Catch Collections

Figuring commissions on catch collected from artisanal fishermen at 1 MT/kg,

$$60,000 \text{ kg} \times 1 \text{ MT/kg} = 60,000 \text{ MT}$$

3) Commission on Sale of Fishing Gear and Materials

Assuming a sales value of 700 kg/year based on standard nylon nets:

$$700 \text{ kg} \times (334 \text{ MT/kg} \times 20\%) = 46,760 \text{ MT}$$

4) Ice Sales

At 3 MT per kg and with sales of 120,000 kg to the artisanal fishermen, we have:

$$3 \text{ MT/kg} \times 120,000 \text{ kg} = 360,000 \text{ MT}$$

5) Annual Revenues

Catch sales proceeds	2,238,500 MT
Commission from catch collection	60,000
Sales commission on fishing gear	46,760
Income from ice sales	<u>360,000</u>
Total	2,705,260 MT

(2) Cash Flow

Following are cash flow projections for the Sopinho Fisheries Complex.

Although, construction costs for the facility will not actually be the responsibility of the Government of Mozambique, we have entered these expenses as part of the initial investment together with the purchase cost of the fishing vessels.

We have assumed a 9-year useful life for the fishing vessels and replacement at the end of this period based on a scrap value of 10% of cost price.

In an average year, cash flow is seen to be positive. However, when fishing vessels or facilities must be renewed, there is a considerable negative cash flow. Even if we ignore the initial investment cost for the grant-in-aid facilities, the cumulative net cash flow over nine years is only 576,000 MT/year, so that the facility would not be able to replace a fishing vessel even at a cost of 600,000 MT/vessel.

To remedy this situation, it will be necessary in the first place to increase the proceeds from catch sales. Expanding sales revenues means an effort to expand catch volume, but there are certain finite limits to this. Under present conditions, it is rather incumbent to strive for an improvement in selling prices. While it is important to supply critically needed proteins to the people of Mozambique at low prices, the whole basis for the project collapses if these low prices are

Table 5-1 Cash Flow for the Sopinho Fisheries Complex

(Unit : '000 MT)

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Sales	0	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705
Sale of Assets	0	0	0	0	0	0	0	0	0	300	0	0	0	410
Cash Income (Total)	0	2,705	2,705	2,705	2,705	2,705	2,705	2,705	2,705	3,005	2,705	2,705	2,705	3,115
Expenses	0	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641
Investment	11,069	0	0	0	0	0	0	0	0	3,000	0	0	0	4,098
Cash Disbursements (Total)	11,069	2,641	2,641	2,641	2,641	2,641	2,641	2,641	2,641	5,641	2,641	2,641	2,641	6,739
Net Cash Inflow Outflow (Δ)	Δ11,069	64	64	64	64	64	64	64	64	Δ 2,636	64	64	64	Δ 3,624
Cumulative	Δ11,069	Δ11,005	Δ10,940	Δ10,877	Δ10,813	Δ10,749	Δ10,685	Δ10,621	Δ10,557	Δ13,193	Δ13,129	Δ13,065	Δ13,001	Δ16,625

obtained at the cost of supply stability. It is therefore desirable to review prices with a view to assuring sufficient income to encourage the fishermen to invest and produce.

Secondly, the Fisheries Complex has the function of providing administrative services to artisanal fishermen as the final link in the governmental administrative mechanism. If these functions are not intended to be based on profit and loss calculations and yet are to be assigned great importance in the activities of the Fisheries Complex, then a major subsidy will naturally have to be provided by the Government.

5-2 Economic Evaluation

Let us consider next the impact that implementation of this Plan will have on the Mozambique economy.

In order to evaluate prices on the basis of opportunity costs, it is normal to show domestic market prices converted to prices in the international market. However, within the period available for this survey, we were not able to obtain data sufficiently definitive to calculate factors for converting domestic to boundary prices. Thus, with the exception of items that can be shown by import prices, we have had to show prices at the domestic market level.

Among the social benefits to be derived from implementation of the subject program would be:

- ① Import substitution based on an increase in the production of fishing nets.
- ② Increased catches based on the expanded supply of fishing nets.
- ③ Increased catches based on fishing operations by the Fisheries Complex.
- ④ Increase in the distribution volume of marine products, based on catches collected by the Fisheries Complex from artisanal

fishermen.

- ⑤ Increases in catches based on technical training of artisanal fishermen by the Fisheries Complex.
- ⑥ Improved freshness retention based on the use of ice.
- ⑦ Increase in employment opportunities.

Social benefits which can be expressed in quantitative terms are as follows:

- (1) Import Substitution Based on Increased Production of Fishing Nets

Based on this project, the bulk of the nets produced by CIMA are to be small nets of small mesh based on relatively fine multifilament netting. Thus, we have set the average CIF prices, Maputo, at 343 MT/kg. Accordingly, the benefit from import displacement will be:

$$343 \text{ MT/kg} \times 120 \text{ tons/year} = 41,160,000 \text{ MT}$$

- (2) Increase in Catches by Vessels Operated by the Fisheries Complex

According to FAO data, the volume of imports of fishery products into Mozambique during 1979 totaled 6,744 tons, with an import value of \$2.6 million. Average unit value was 14.4 MT/kg. If we assume that the 185 tons/year catch by Complex vessels totally displaces imports, the benefit comes to:

$$185 \text{ tons/year} \times 14.4 \text{ MT/kg} = 2,664,000 \text{ MT}$$

- (3) Increase in the Distribution Volume of Fishery Products Based on Collecting Catches from Artisanal Fishermen

Since an increase in domestic distribution leads to a displacement of imports, this benefit becomes:

$$60 \text{ tons/year} \times 14.4 \text{ MT/kg} = 864,000 \text{ MT}$$

(4) Increase in Employment

Net-making facility	1,584,000 MT
Fisheries Complex	
Facilities	384,000
Fishing Vessels	900,000
Total	<u>2,832,000 MT</u>

The following table presents the results of a cost-benefit analysis over a 35 year evaluation period:

The cost-benefit ratio, based on an 8% discount rate, is 13.3%, and the net present value (NPV) after 35 years is 70,092,000 MT. In addition, the internal rate of return (IRR) becomes 18.06%.

The above figures demonstrate that the implementation of a grant-in-aid program by the Government of Japan for the Mozambique "Fishery Development Project", centering around a net-making facility and the Fisheries Complex, will be highly significant for the national economy.

Table 5-2 Cost-Benefit Analysis

(Unit : '000 MT)

Year	Social Costs			Social Benefits					Net Benefits counted by 8%		
	Investment	Net Facility	Fisheries Complex	Total	Replacement of Fishing Net Imports	Increased Catch Volume	Increased Distribution Volume	Increased Employment		Total	
1983	85,516	30,839	2,641	118,996	41,160	2,664	864	2,832	47,520	Δ71,476	Δ71,476
84	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	12,999
85	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	12,037
86	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	11,145
87	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	10,320
88	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	9,555
89	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	8,848
1990	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	8,192
91	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	7,586
92	3,000	30,839	2,641	36,480	41,160	2,664	864	2,832	47,520	11,040	5,522
93	18,777	30,839	2,641	52,257	41,160	2,664	864	2,832	47,520	Δ 4,737	Δ 2,194
94	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	6,020
95	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	5,575
96	4,098	30,839	2,641	37,578	41,160	2,664	864	2,832	47,520	9,942	3,656
97	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	4,779
98	1,107	30,839	2,641	34,587	41,160	2,664	864	2,832	47,520	12,933	4,076
99	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	4,097
2000	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	3,795
1	3,000	30,839	2,641	36,480	41,160	2,664	864	2,832	47,520	11,040	2,762
2	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	3,253
3	18,777	30,839	2,641	52,257	41,160	2,664	864	2,832	47,520	Δ 4,737	Δ 1,016
4	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	2,790
5	7,444	30,839	2,641	40,924	41,160	2,664	864	2,832	47,520	6,590	1,213
6	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	2,391
7	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	2,214
8	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	2,054
9	4,098	30,839	2,641	37,578	41,160	2,664	864	2,832	47,520	9,942	1,344
2010	3,000	30,839	2,641	36,480	41,160	2,664	864	2,832	47,520	11,040	1,381
11	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,627
12	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,506
13	19,884	30,839	2,641	53,364	41,160	2,664	864	2,832	47,520	Δ 5,844	Δ 580
14	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,292
15	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,196
16	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,108
17	-	30,839	2,641	33,480	41,160	2,664	864	2,832	47,520	14,040	1,025
Total	168,701	1,079,365	92,435	1,340,501	1,440,600	93,240	30,240	99,120	1,663,200	322,699	70,092

Internal Rate of Return 18.06%

Cost-Benefit Ratio (at 8% Discount) 1.133

SECTION 6 CONCLUSIONS AND RECOMMENDATIONS

6-1 Conclusions

The development policy for small-scale fisheries of the Government of Mozambique centers on the establishment of Fishermen's Cooperatives and Fisheries Complexes throughout the country in areas with concentrations of artisanal fishermen, and also facilitation the supply of fishing vessels and gear to the small-scale fisheries to expand production and develop distribution channels through various public corporations under the wing of Secretariat of State for Fisheries.

In order to expedite the plan for small-scale fishery development, the Government of Mozambique has requested grants-in-aid from the Government of Japan. In response to this request, JICA dispatched the basic design survey team. As a result of the basic design study, the team felt that it would be appropriate to construct a net-making facility on a site adjacent to CIMA, Net-Making Corporation in Maputo, to establish a Fisheries Complex in Sopinho, and to provide for the distribution of fishing gear and materials for the Sopinho Fisheries Complex.

We have made tentative calculations on the viability of operations, once the distribution mechanism is placed in operation, it will be possible, through the new net-making facility to produce some 120 tons of netting per annual and also to provide artisanal fishermen with low-cost nets. Through the Sopinho Fisheries Complex, it will be envisaged to have improvement of fishing technique of artisanal fishermen, to increase fish catches, and to enlarge distribution of fish products.

Implementation of this fisheries development program will, in our judgement, bring major benefits to the national economy. Thus, there is considerable significance and merit, we consider, in the Government of Japan making grants-in-aid for implementation of the subject plan. Implementation in the earliest opportunity is expected.

6-2 Recommendations

For the effective operation and use of the planned facilities, we recommend the followings to the Government of Mozambique.

(1) Net-Making Facility

The productivity of CIMA can and should be improved, judging from the production record of the existing net-making facility. In the interest of improving operating efficiency and boosting productivity, it will be necessary to make a major effort to keep stable supply of twines for raw material and spare parts for net weaving machines, and to improve management performance by developing personnel through foreign technical training programs.

(2) The Sopinho Fisheries Complex

- a) Vessel operations will be an indispensable part of the Sopinho Fisheries Complex operations. The ice-making facilities, refrigeration facilities, and workshop planned under this program all have their own specific functions but, for purposes of increasing artisanal fishery production in the target area, the results will, we feel, be multiplied by the operations of the Complex's own vessels in the areas of pilot fishing and fishery training.

To this end, it would be desirable if five of the vessels currently being constructed at NAVIPESCA could be assigned to the Sopinho Fisheries Complex.

- b) The Sopinho Fisheries Complex should avoid a situation where in an effort to make its fishery operations profitable, it introduces powered vessels and modern gear and method which may serve to put pressure on the species and livelihood of local artisanal fishermen who still use antiquated gear.

To avoid this danger, Complex vessel activities should be confined to the above mentioned areas. These vessels must not impact on the fishing operations of local artisanal fishermen by catching fish in the same waters using competing fishing methods.

- c) In our judgement on the financial evaluation for the Sopinho Fisheries Complex, it would not be able to renew facilities, equipment and vessels on a self-liquidating basis.

To remedy this situation, it will be necessary in the first place to increase the proceeds from catch sales. Expanding sales revenues means an effort to expand catch volume, but there are certain finite limits to this. Under present conditions, it is rather incumbent to strive for an improvement in selling prices.

Secondly, the Fisheries Complex has the function of providing administrative services to artisanal fishermen as the final link in the governmental administrative mechanism. If these functions are not intended to be based on profit and loss calculations and yet are to be assigned great importance in the activities of the Fisheries Complex, then a major subsidy will naturally have to be provided by the Government.

APPENDICES

I FORMATION OF SURVEY TEAM

The survey team was organized as follows, and was headed by Mr. Kazuo Takayama, Chief Fishing Boat Inspector, Fishing Boat Division, Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries.

Team Leader	Kazuo Takayama	Chief Fishing Boat Inspector, Fisheries Agency
Grant Aid	Yoshimi Suenaga	Second Economic Cooperation Div., Ministry of Foreign Affairs
Coordinator	Fumiaki Ikushima	Second Africa Div., Ministry of Foreign Affairs
Fisheries Development	Kuniaki Takahashi	Fisheries Engineering Co., Ltd.
Equipment and Facilities	Toyomitsu Terao	Fisheries Engineering Co., Ltd.
Fishing Boat	Kanji Yoshimi	Fisheries Engineering Co., Ltd.

II ITINERARY

DATE	DESCRIPTION
Oct. 18 (Mon)	Left Tokyo.
20 (Wed)	Arrived at Maputo. Preliminary discussions with officials of Secretariat of State for Fisheries (SEP).
21 (Th)	Conferred with officials of Direction for Asian Countries, Ministry of Foreign Affairs, Secretariat of State for Accelerated Development of Limpopo and Incomati Regions, and Department of International Cooperation, Ministry of Health.
23 (Sat)	Discussed on the survey itinerary and the backgrounds of the Project.
24 (Sun)	Holiday.
25 (Mon)	Visited EQUIPESCA, CIMA and NAVIPESCA.
26 (Tue)	Visited Head Quarter, Cannery and Fish Processing Factory of SULPESCA, National Fisheries Training Center and TECHNIPESCA.
27 (Wed)	Conferred with officials of SEP. Visited PESCOM.
28 (Th)	Conferred with officials of SEP.
29 (Fri)	Discussed on Japanese Grants-in-aid procedures with officials of the Government of Mozambique concerned. Conferred with officials of SEP.

DATE	DESCRIPTION
Oct. 30 (Sat)	Signed the Minutes of Discussions. Messrs. Takayama, Suenaga and Ikushima left Maputo for Tokyo via Dar es Salaam.
31 (Sun)	Messrs. Takahashi, Terao and Yoshimi left Maputo for Quelimane.
Nov. 1 (Mon)	Visited planned site of Sopinho Fisheries Complex, Serviço Provincial de Pesca da Zambézia and EFRÍPEL. Left Quelimane for Maputo.
3 (Wed)	Conferred with officials of SEP. Visited the planned site of Net Making Facility.
4 (Th)	Visited NAVIPESCA and the dockyard.
5 (Fri)	Visited Inhaka Fisheries Complex and a Fisheries Cooperative.
6 (Sat)	Conferred with officials of SEP. Left Maputo for Tokyo via Dar es Salaam.
7 (Sun)	Holiday.
8 (Mon)	Submitted a report to the Japanese Embassy in Tanzania. Left Dar es Salaam.
10 (Wed)	Arrived at Tokyo.

III LIST OF DISCUSSANTS

NAME	OFFICE NAME	TITLE
Joáquim T. de Almeida	Secretary of State for Fisheries (SEP)	Secretary
Sergio Basulto	Do.	National Director
Manuel L. Gonçalves	Small Scale Fisheries Unity Direction (UDPPE), SEP	Director
Luiz Carlos Vabbri	Department of Planning, SEP	Economist
Antonio A. Silva	Department of International Cooperation, SEP	Chief
Rogério Bekwakdo	UDPPE	
Franciso Martinez	Department of Commerce and Supply, UDPPE	
Lidia Pó	Fishery Research Institute	Director
Daniel Antonio	Direction for Asian Countries, Ministry of Foreign Affairs	Chief
Angelo V. L. Mucaoele	Ministry of Foreign Affairs	
Carlos Cawalho	Department of Marketing, Ministry of Internal Trade	National Director
Abel R. Chicalia	Ministry of Foreign Trade	
Aerny & A. Hatos	National Directorate of International Cooperation, Ministry of Planning	Director
Americo Fortvna	Europe and Africa Department, NDIC	Chief
Cecília Cardoso	Secretariat of State for Accelerated Development of Limpopo and Incomati Regions	

NAME	OFFICE NAME	TITLE
Maria B. Ferreira	Department of International Cooperation, Ministry of Health	Coordinator
Abdul Noormalmed	Department of Planning, MH	Coordinator
Maria C. Marcos	Do.	
Nuno Arez	Roads and Bridges Department Ministry of Public Works and Housing	Director
Jaime Tohá	Forest Department, Ministry of Agriculture	Director
Antonió Brinca	EQUIPESCA / CIMA, SEP	Director
Leong Moy	CIMA, SEP	Manager
M. Magalhães	EQUIPESCA, SEP	Deputy Director
José Almeida	NAVIPESCA, SEP	Engineer Director
Gösta Johnsson	NAVIPESCA, SEP	Engineer
Jorge R. Poitvin	Production Division, SULPESCA, SEP	Chief
Cipriam A. Vate	Canning Factory, SULPESCA	Chief
Aurelio F. Machava	Processing Factory, SULPESCA	Chief
Joaquim T. Madeira	National Fisheries Training Center	Chief
Raul F. Dias	TECHNIPESCA	Director
Augsto B. Frrananoks	Do.	Engineer
Nazarinho J. Mourinho	Serviço Provincial de Pesca da Zambézia	Chief
Yasniw Patel	International Department, Banko de Moçambique	Director
Ko Watanabe	FAO Expert (SULPESCA)	Instructor
Tsunetoshi Mihara	Do.	Instructor

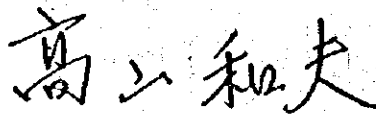
IV MINUTES OF DISCUSSIONS

MINUTES OF DISCUSSIONS

In response to the request made by the Government of the People's Republic of Mozambique for the Fisheries Development Project in Mozambique (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. Kazuo Takayama to conduct a basic design study for 24 days from October 10, 1982. The team had a series of discussions and exchanged views with the authorities concerned.

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

Maputo, October 30, 1982



Kazuo Takayama
Team Leader
The Japan Survey Team




Sergio Basulto
National Director for Fisheries
Secretariat of State for Fisheries

MINUTES

1. The objective of the Project is to provide the necessary facilities, equipment and materials for the fisheries development in Mozambique.
2. The proposed sites of the facilities for the Project are listed and shown in Annex I.
3. The Japanese Survey team will convey to the Government of Japan the desire of the Government of the People's Republic of Mozambique that the former takes the necessary measures to cooperate in implementing the Project and provides the facilities and ~~other~~ items listed in Annex II within the scope of Japanese economic cooperation in grant form.
4. The Government of the People's Republic of Mozambique will take the necessary measures listed in Annex III on condition that the grant assistance by the Government of Japan is extended to the Project.
5. Both sides confirmed that the Japanese Survey team explained the Japanese Grand Aid Programme and Mozambique side understood it.

K.T.

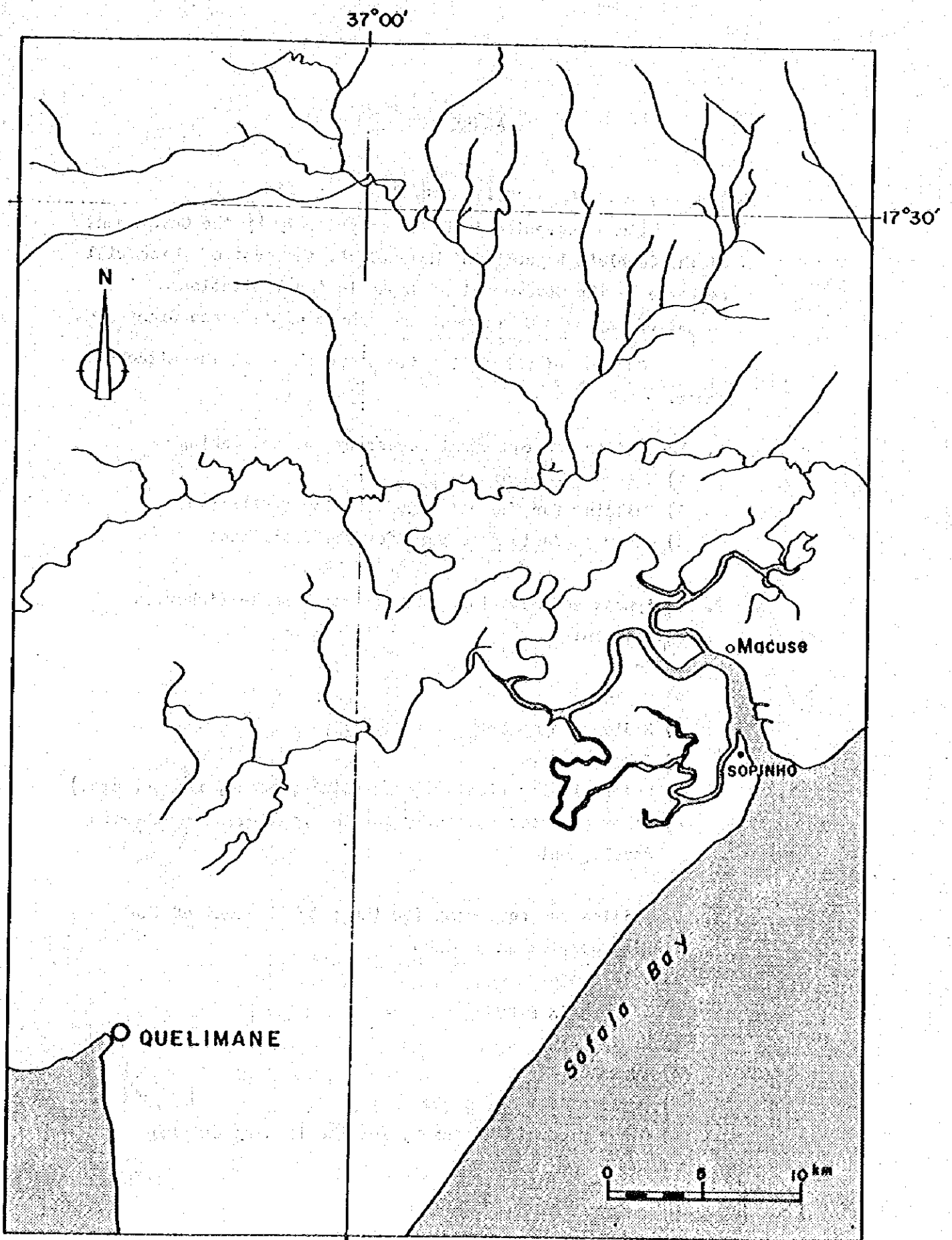
AIREX I



1. The proposed site of the Net Manufacturing Facility in the town of Maputo (Maputo Province), will be Avenida das Pop~~o~~las Populares No. 357.

2. The proposed site of the Fishing Complex will be Sopinho (Zambezia Province), as shown in the annexed map.

K.T.



ANNEX II

Items requested in order of priority by the Government of the People's Republic of Mozambique, the cost of which will be borne by the Government of Japan in the limitation of the budget of Japanese Government and scheme of Japanese Grant-aid.

Outline of respective items are shown in the attached paper.

1. Facilities and equipment necessary for net making
 - 1) Net making machines
 - 2) Building for the net manufacturing facilities
 - 3) Other products necessary for the facilities
2. Equipment and materials for the small-scale fisheries development
 - 1) Nets
 - 2) Engines
 - 3) Radio telephones
 - 4) Echo sounders
 - 5) Materials for fishing gears (lines, hooks, floats, etc.)
 - 6) Other products necessary for the small-scale fisheries development
3. Facilities and equipment for the establishment of the fishing complex in Sopinho
 - 1) Cold Storage
 - 2) Ice making plant
 - 3) Generator
 - 4) Workshop
 - 5) Building for the above
 - 6) Other products necessary for the fishing complex

K.T.

Outline of Items for ANNEX II

1. Facilities and equipment necessary for net making
 - 1) Net making machines
 - a. Net-making machines 6 units
 - b. Stretcher with boiler 1 unit
 - 2) Building for the net manufacturing facilities 1 building
 - 3) Other products necessary for the facilities 1 lot
2. Equipment and materials for the small-scale fisheries development
 - 1) Nets
 - a. Nylon multifilament 100 ID x 100 PL/roll 320 rolls
 - b. Polyethylene 50 ID x 100 PL/roll 400 rolls
 - 2) Engines
 - a. Marine engine of necessary horse power for boats model MP-2 10 units
 - 3) Radio telephones
 - a. Receiver 20 units
 - b. VHF/U radio telephone 10 units
 - c. SSB 10 units
 - 4) Echo-sounders 10 units
 - 5) Materials for fishing gears
 - a. Rope 200m/coil 400 coils
 - b. Twine, polyethylene 2 lbs/spool 2,200 spools
 - c. Nylon, monofilament 10m/coil 6,000 coils
 - d. Swivel 20,000 pcs.
 - e. Hook 40,000 pcs.
 - f. Float 50,000 pcs.
 - 6) Other products necessary for the small-scale fisheries development 1 lot
3. Facilities and equipment for the establishment of the fishing complex in Sopinho
 - 1) Cold storage
 - a. Cold and ice storage 1 unit
 - 2) Ice making plant
 - a. Plate ice making plant (2 tons/day) 1 unit

K.T.



- 3) Generator 2 units
- 4) Workshop 1 lot
- ~~5) Building for the above 1 building~~
- 6) Other products necessary for the fishing complex 1 lot

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AIRTEX III

Items to be undertaken by the Government of the People's Republic of Mozambique are as follows:

1. To provide data and information necessary for the design and the construction of the net manufacturing facilities and the fishing complex.
2. To secure the land necessary for the construction of the net manufacturing facilities and the fishing complex.
3. To clear and level the Project sites before the start of the construction.
4. ~~To~~ ensure prompt unloading and custom clearance in the People's Republic of Mozambique and to facilitate internal transport of the equipment for the Project.
5. To exempt the Japanese nationals concerned from custom duties, internal taxes and other fiscal levies imposed in the People's Republic of Mozambique with respect to the supply of the products and the services for the Project.
6. To provide the necessary permissions, licences and other authorizations for carrying out the Project.
7. To provide facilities for distribution of water supply mains, electrical power main, external drainage and sewage lines to the Project sites.
8. To maintain and use facilities, equipment and materials properly with due diligence.

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MEMORANDUM

The Mozambican authorities concerned and the Japanese Survey Team confirmed that

1. The Japanese Survey Team will inspect the proposed site of the fishing complex in Sopinho and study the feasibility in the condition of construction and fisheries situation around the complex.
2. Depending on the survey results of the Japanese Survey Team, the Team may consider that the establishment of the complex is not feasible for the time being.
3. In case the Japanese Survey Team considers it unfeasible, the Team may not recommend the Japanese Government to provide facilities and equipment for the establishment of the complex.

Maputo, October 30, 1982

高山和夫

Kazuo Takayama
Team Leader
Japanese Survey Team

Sergio Basulto

Sergio Basulto
National Director for Fisheries
Secretariat of State for Fisheries

JICA