

STUDY REPORT
ON
THE PROJECT FOR PROCUREMENT OF
EQUIPMENT FOR IMPROVING
THE PORT FACILITY
IN NORO
IN
THE SOLOMON ISLANDS

February 1995

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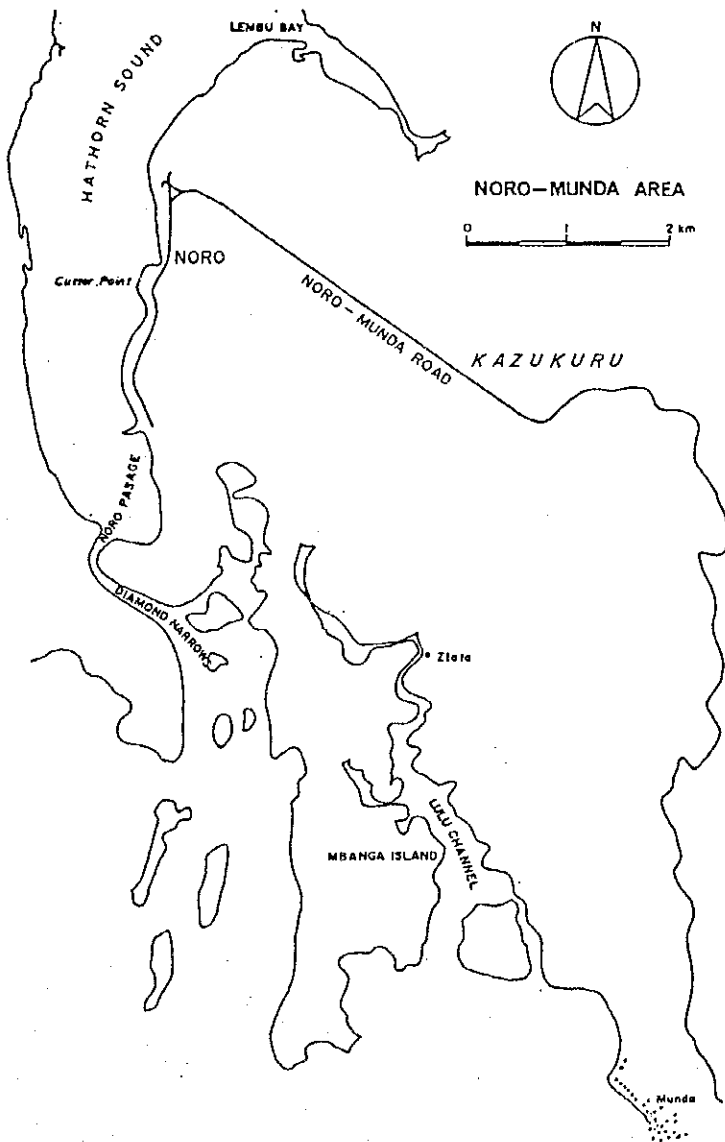
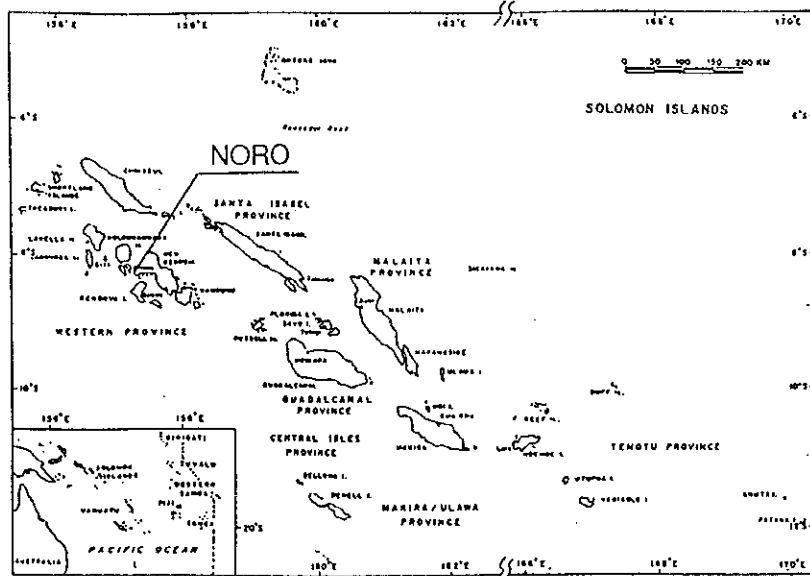


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Chapter 1 Background of the Project

1. Background and Contents of the Request

① Background of the Request

(1) Country and Natural Conditions

The Solomon Islands comprises six main islands and around 990 smaller islands in the South Pacific Ocean. The national land area is about 28,400 km², which is relatively large compared to other countries in the South Pacific region, and the total population is 330,000. The Solomon Islands is covered by forests, which provide ample timber resources and reflect the tropical climate and plentiful rainfall, however, the steep mountainous nature of the land means that only around 12% of the national land area is arable.

The 200 nautical miles fishery zone of the Solomon Islands covers an area of some 1,630,000 km² and provides the country with plentiful fishing resources.

Among the marine product resources of the Solomon Islands, bonito and tuna are particularly plentiful. The marine product resources of the Solomon Islands occupy an important position within the country's economy and the management and preservation of those resources is an important issue for the government.

(2) National Economy

Following its independence in 1978, the Solomon Islands has promoted national development in line with national development plans. The economy of the country is dominated by the export of such primary products as copra, timber, marine products and palm oil etc. and is therefore unstable in that it is prone to the effects of fluctuations in the international market prices of such items. Economic growth was particularly sluggish in the latter half of the 1980s due to low international market prices of copra and palm oil and damage caused by cyclones.

Around half of the national budget expenditure in the Solomon Islands is covered by tax revenue and other forms of income, while

the rest is subsidized by foreign countries and international organizations. In an effort to carry out economic improvements through the implementation of development plans, the Solomon Islands has been introducing grant aid and loan aid from abroad and is promoting its private sector manufacturing industries through overseas investment and funding.

However, faced with an increasingly large foreign debt, the Government of the Solomon Islands is now in the process of reconstructing the national economy through the twin policies of reducing expenditure and securing higher tax revenue. Moreover, it is aiming to strengthen the economic base and achieve stable economic growth.

(3) Background of the Project

The fishing industry contributes greatly to the economy of the Solomon Islands in providing jobs and enabling the country to obtain foreign currency. Indeed, the Fishing Industry Development Plan is one of the major policies of the government. With regards to bonito and tuna, which are the main marine product resources, development has been made centered around Turagi in Middle Province and Noro in West Province. As part of the national policy of decentralization, the Government of the Solomon Islands compiled a comprehensive development plan for the Noro District of West Province and has carried out construction of the main infrastructure in the area. Following that, the Government of the Solomon Islands requested the Government of Japan to provide grant aid in order to advance the revitalization of Noro through the promotion of the area's industry based upon the marine product industry.

② Contents of the Request

The following items of equipment have been requested.

Requested Equipment	Quantity
Bulldozer	1

Requested Equipment	Quantity
Backhoe	1
Tractor shovel	1
Tipper truck (dump truck)	1
Compactor	1
Road grader	1
Box pallets	200
Baskets for sorting fish (A-type)	30
Baskets for sorting fish (B-type)	30
Stainless freezing pans (small)	400
Stainless freezing pans (large)	500
Grid type baskets with punching plate for loin	400
Battery type fork lift trucks	3
Diesel type fork lift trucks	3
MYCOM compressor	1

2. Outline of the Sector

In line with the government's policy to promote the marine product sector, which is one of the main export industries in the Solomon Islands, modern freeze processing and canning factories for bonito and tuna are in operation in Noro District. Since 1988, grant aid has been provided by the Government of Japan to aid the construction of the fishing industry base in Noro and a project for the improvement of the port facility and freezer and refrigeration facilities has been implemented over three phases. Moreover, the Project for Improvement of the Port Facility in Noro was implemented in 1992, also through grant aid provided by the Government of Japan. However, although the canning and processing areas have achieved smooth expansion, the areas of production, receipt and delivery remained unsolved issues.

With regard to the port facility in Noro, the cargo handling facilities for products and raw materials are operating at full capacity thanks to the major improvements made to the handling capacity of processed marine product containers, however, because

there are no containers reserved exclusively for marine products, the same containers are also being used for the shipping of other export items such as coconuts and timber etc. Therefore, the expansion of the port facility and the improvement in the level of maintenance efficiency at the port are urgently required.

With regard to freezer and refrigeration facilities, increases in the volume of processed marine product production in excess of original forecasts have meant that processing and storage capacity, in excess of that originally planned for, has become necessary. The required refrigeration capacity has reached 940 tons, which is almost twice as much as the 500 tons originally planned for, and the storage coefficient has reached 0.226 MT/m³, also in excess of the originally planned value. For these reasons, the need for the efficient sorting of stored raw materials and the maintenance of refrigerators, which have reached extreme operating levels, have become serious problems for the port facility in Noro.

Chapter 2 Contents of the Project

1. Objectives of the Project

The objective of the Project is to provide construction equipment and materials to be used in expanding the container yard and other port facilities, and equipment that will improve the capacity and efficiency of use of freezer and refrigerator facilities.

2. Outline of the Project

① Implementing Agencies and Operational Setup

The implementing and operating agencies for the Project are as follows:

Main supervisory office: Ministry of Agriculture and Fisheries

Implementing agency: Fisheries Division

The Fisheries Division possesses a total staff of 42.

② Maintenance and Control Plan

The following table indicates the budgets of the Ministry of Natural Resources and the Fisheries Division, however there is no information concerning the detailed breakdown of expenditure. In the Fisheries Division, expenditure is small compared to revenue and it can be said that the Division will be able to comfortably afford the increased maintenance and operating costs that are caused by implementation of the Project.

Unit: SI \$ (Solomon Island \$)

		Year 1991	1992	1993
Ministry of Natural Resources	Revenue	3,741,769	*4,977,200	*5,998,500
	Expenditure	2,362,869	*2,675,400	*2,892,622
Fisheries Division	Revenue	3,035,885	3,807,305	*3,213,000
	Expenditure	523,904	652,208	* 765,838

* Note: The unmarked figures are actual amounts and the marked figures are budget amounts.

3. Design Concept

① Examination of Basic Conditions

The equipment to be provided under the Project shall be installed in Noro District in West Province where the Comprehensive Development Plan is being implemented. The Project for Improvement of the Fishing Infrastructure, which aimed to improve port and freezer and refrigeration facilities etc. over three phases, and the Project for Development of the Port Facility have already been implemented with Japanese grant aid in the same area from 1988 onwards and in 1992 respectively. However, the increase in marine product processing and production which exceeded the expectations of the original plans has made the insufficient capacity of the existing facilities and equipment become apparent and, for this reason, a request for additional grant aid was made to the Government of Japan.

② Examination of Each Item of Equipment

*Port Facility Equipment

The original request only indicated simple basic specifications and so the specifications and contents of the equipment to be procured, including attachments, were decided upon after giving ample consideration of the purposes and conditions of use of the equipment.

*Freezer and Refrigeration Facility Equipment (baskets, pallets, fork lifts and MYCOM compressor)

These items of equipment shall be used for treating marine product raw materials in the freezer and refrigeration facility.

4. Equipment Specifications

A-1 Bulldozer (1)

- * Operating weight: About 24 tons
- * Blade: Straight tilt, Min. 3,700 mm x 1,400 mm
- * Engine output: About 200 PS
- * Cabin: ROPS canopy

A-2 Backhoe (1)

- * Operating weight: About 15 tons
- * Bucket: Min. capacity 0.63 m³
- * Engine output: About 100 PS
- * Cabin: ROPS canopy

A-3 Tractor Shovel (1)

- * Operating weight: About 10 tons
- * Bucket: Min. capacity 2.1 m³
- * Drive system: 4 x 4
- * Engine output: About 120 PS

A-4 Dump Truck (1)

- * Dead-weight: About 8 tons
- * Engine output: About 190 PS
- * Drive system, : 4 x 2

A-5 Compactor (1)

- * Type: Front wheel vibrating roller, back wheel tires
- * Operating weight: About 10 tons
- * Centrifugal load: About 21 tons
- * Engine output: About 130 PS

A-6 Road Grader (1)

- * Operating weight: About 9 tons
- * Blade: About 3,100 mm wide
- * Engine output: About 130 PS

B-1 Box Pallets (200)

- * Dimensions: About 2,150 x 1,250 x 1,260 mm
- * Material: Steel

B-2a Baskets for Sorting Fish (30)

- * Dimensions: About 1,550 x 1,000 x 1,260 mm
- * Material: Galvanized steel

B-2b Baskets for Sorting Fish (30)

- * Dimensions: About 1,300 x 1,000 x 1,350 mm
- * Material: Galvanized steel

B-3a Stainless Freezing Pans (400)

- * Dimensions: About 500 x 300 x 120 mm
- * Material: Steel

B-3b Stainless Freezing Pans (400)

- * Dimensions: About 500 x 250 x 120 mm
- * Material: Steel

B-4 Grid Type Baskets with Punching Plate for Loin (400)

- * Dimensions: About 870 x 870 x 150 mm
- * Material: Steel

B-5 Battery Type Fork Lift Trucks (3)

- * Operating capacity: Max. load 2 tons or more, Max lifting height 3 m or more
- * Fork length: About 920 mm
- * Fork adjustment interval: About 240 - 1,020 mm
- * Storage battery: Voltage 48 V, capacity about 450 AH/5H

B-6 Diesel Type Fork Lift Trucks (3)

- * Operating capacity: Max. load 6 tons or more, Max lifting height 3 m or more
- * Fork length: About 1,200 mm
- * Fork width: About 150 mm
- * Engine: Output about 90 PS, torque about 35 kg-m

B-7 MYCOM Compressor (1)

- * Type: Reciprocal type, 2-stage compressor unit
- * Motor: About 37 KW x 4 P x 50 Hz

Chapter 3 Project Evaluation and Recommendations

1. Project Effects

The port facility and freezer and refrigeration facilities targeted by the Project are amply utilized for the production and shipping of processed marine products such as canned fish etc., which are leading export items of the Solomon Islands. Due to the increases in production and shipping volumes, the expansion of the said facilities has become necessary.

The port facility equipment to be provided under the Project is to be used in order to expand the port facility, which is currently jointly used for other export products, and to construct a new container yard with an area of 5,000 m². This new port facility will be used exclusively for processed marine product containers and thus will enable future increases in processed marine product production to be handled and cargo handling work to become more efficient.

The freezer and refrigeration facility equipment is required because, as was mentioned previously, the current facilities are almost full to capacity and the existing equipment is operating at peak levels. For this reason, the refrigerator storage coefficient is far in excess of the originally planned value and the loads being placed on the existing facilities and equipment are extremely high. Moreover, it is hoped that the introduction of more efficient stainless freezing pans will contribute towards improving the operation rates of existing equipment and also improving quality levels. The installation of an additional MYCOM compressor will reduce the strained operating levels and so make it possible to carry out maintenance with ease.

The implementation of the Project will contribute towards raising the efficiency levels of existing port facilities and equipment and, moreover, enable the even more effective use of facilities and equipment that were provided under past Japanese grant aid projects.

2. Recommendation

In the Project target area, port facilities and equipment, which were provided through past grant aid projects, private sector marine product processing facilities and also the technical assistance provided by Japanese specialists and assistance groups are all functioning effectively. It is important that the Project fully understands these current conditions and provides the facilities and equipment upon giving consideration to its relationship with existing facilities, equipment and technical assistance and selecting the specifications and contents which are required most of all by the Solomon Islands side.

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