ASIAN DEVELOPMENT BANK PCR:TON 22137

PROJECT COMPLETION REPORT

ON THE

FISHERIES DEVELOPMENT PROJECT
(Loan No. 1030-TON[SF])

IN

TONGA

April 2001

CURRENCY EQUIVALENTS

Currency Unit – pa'anga (T$)

		At Appraisal	At Project Completion
		(August 1990)	(October 2000)
T$1.00	=	US$0.7935	US$1.874063
US$1.00	=	T$1.260240	T$0.5336

ABBREVIATIONS

ADB	–	Asian Development Bank
FIRR	–	financial internal rate of return
NPV	–	net present value
MFV	–	motor fishing vessel
MOF	–	Ministry of Finance
SLA	–	Subsidiary Loan Agreement
SS1, 2, 3	–	Sea Star 1, 2, 3 (fishing vessel)
SSFCL	–	Sea Star Fishing Company Limited
t	–	ton
TA	–	technical assistance

NOTES

(i) The fiscal year (FY) of the Government and its agencies ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2000 ends on 30 June 2000.

(ii) In this report "US$" refers to US dollars, "T$" to Tongan dollars, or pa'anga, and "A$" to Australian dollars.

CONTENTS

BASIC DATA

A. Loan Identification

1.	Country	Kingdom of Tonga
2.	Loan Number	1030-TON(SF)
3.	Project Title	Fisheries Development Project
4.	Borrower	Kingdom of Tonga
5.	Executing Agency	Sea Star Fishing Company Limited
6.	Amount of Loan	US$2.49 million (SDR1.825 million)
7.	PCR Number	PCR:TON 609

B. Loan Data

1.	Appraisal	
	- Date Started	6 February 1989
	- Date Completed	17 February 1989
2.	Loan Negotiations	
	- Date Started	26 June 1990
	- Date Completed	29 June 1990
3.	Date of Board Approval	6 September 1990
4.	Date of Loan Agreement	23 November 1990
5.	Date of Loan Effectiveness	
	- In Loan Agreement	21 February 1991
	- Actual	22 June 1994
	- Number of Extensions	9
6.	Closing Date	
	- In Loan Agreement	31 December 1994
	- Actual	13 January 2000
	- Number of Extensions	3
7.	Terms of Loan	
	- Interest Rate	One (1) percent per annum
	- Maturity	40 years
	- Grace Period	10 years
8.	Terms of Relending	
	- Interest Rate	6.36 percent
	- Maturity	15 years
	- Grace Period	5 years

9. Disbursements

a. Dates

Initial Disbursement	Final Disbursement	Time Interval
24 May 1995	13 January 2000	4 years, 8 months
Effective Date	**Original Closing Date**	**Time Interval**
22 June 1994	31 December 1994	6 months

b. Amounts (US$'000)

Description	Original Allocation	Final Allocation	Amount Disbursed	Undisbursed Loan Balance	Amount Canceled
Vessels	1,672,000	1,553,468	1,553,468	0	0
Civil Works	49,973	233,394	233,394	0	0
Equipment	123,619	531,896	531,896	0	0
Consulting	93,371	161,866	161,866	0	0
Service Charge	27,336	8,669	8,669	0	0
Unallocated	433,701	0	0	0	0
Total	**2,400,000**	**2,489,293**	**2,489,293**	**0**	**0**

10. Local Costs Financed (US$'000) Nil

C. Project Data

1. Total Project Costs (US$ million)

Item	Appraisal Estimate	Actual
Foreign Exchange Cost	2.400	2.258
Local Cost	0.250	0.331
Total Cost	**2.650**	**2.589**

2. Financing Plan (US$ million)

Source of Financing	Appraisal Estimate	Actual
Borrower	0.250	0.100
Asian Development Bank	2.400	2.489
Total	**2.650**	**2.589**

3. Cost Breakdown by Project Components (US$ million)

Component	Appraisal Estimate	Actual
Fishing Vessels	1.676	1.554
Shore Facilities and Vessel Spare Parts	0.375	0.865
Consultant Services	0.103	0.161
Physical Contingencies	0.219	0
Price Escalation	0.250	0
Service Charge	0.027	0.009
Total	**2.650**	**2.589**

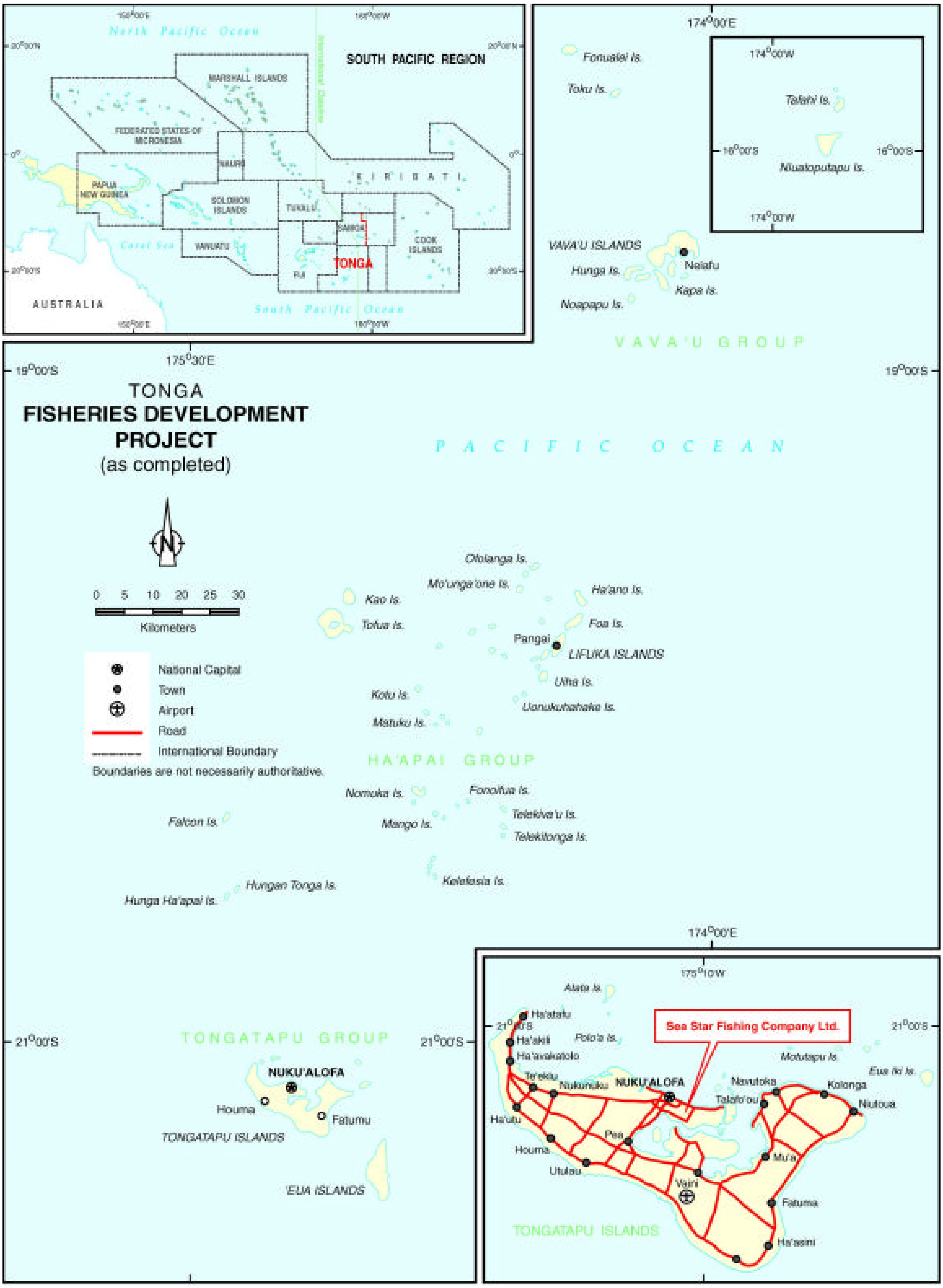
4. Project Implementation Schedule

Item	Appraisal Estimate	Actual
Civil Works		
Started	Jul 1991	Jan 1997
Completed	May 1993	Oct 1998
Naval Architect Consultant		
Started	Feb 1991	Nov 1994
Completed	Nov 1991	Feb 1996
Marine Surveyor Consultant		
Started	Not Provided	Jan 1997
Completed	Not Provided	Mar 1999
Procurement of Equipment and Materials		
Started	Aug 1991	Sep 1997
Completed	Nov 1993	Oct 1998
Procurement of Vessels		
Started	Nov 1994	May 1995
Completed	Mar 1996	Mar 1999

D. Data on ADB Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of members
Appraisal	7-17 Feb 1989	4	11	a,b,c,d
Follow-up Appraisal Mission	23-28 Jun 1989	1	6	a
Loan Negotiations	21-23 Jun 1990	1	3	a
Special Project Administration Mission	9-10 Apr 1992	1	2	a
Inception Mission	30 Jul-9 Aug 1994	1	11	a
Review Mission	11-21 Dec 1995	2	11	d,g
Special Loan Administration Mission	22-26 Apr 1996	2	5	e,g
Review Mission	17-21 Oct 1996	1	5	e
Review Mission	31 Jan-7 Feb 1998	1	8	g
Review Mission	9-20 Nov 1998	1	12	g
Pre-PCR Mission	28 Jun-5 Jul 1999	2	8	f,g
Review Mission	8-17 Mar 2000	1	10	f
PCR Mission	9- 20 Oct 2000	2	21	d,f

a-financial analyst, b-counsel, c-country officer, d-consultant, e-project implementation specialist, f-project specialist, g-senior project implementation officer


TONGA
FISHERIES DEVELOPMENT PROJECT
(as completed)
SOUTH PACIFIC REGION
North Pacific Ocean
MARSHALL ISLANDS
FEDERATED STATES OF MICRONESIA
NAURU
KIRIBATI
PAPUA NEW GUINEA
SOLOMON ISLANDS
TUVALU
SAMOA
COOK ISLANDS
VANUATU
FIJI
TONGA
Coral Sea
AUSTRALIA
South Pacific Ocean
Fonualei Is.
Toku Is.
Tafahi Is.
Niuatoputapu Is.
VAVA'U ISLANDS
Neiafu
Hunga Is.
Kapa Is.
Noapapu Is.
VAVA'U GROUP
PACIFIC OCEAN
Ofolanga Is.
Mo'unga'one Is.
Ha'ano Is.
Kao Is.
Tofua Is.
Foa Is.
Pangai
LIFUKA ISLANDS
Uiha Is.
Kotu Is.
Uonukuhahake Is.
Matuku Is.
HA'APAI GROUP
Nomuka Is.
Fonoifua Is.
Telekiva'u Is.
Falcon Is.
Mango Is.
Telekitonga Is.
Kelefesia Is.
Hungan Tonga Is.
Hunga Ha'apai Is.
TONGATAPU GROUP
NUKU'ALOFA
Houma
Fatumu
TONGATAPU ISLANDS
'EUA ISLANDS
0 5 10 20 25 30
Kilometers
National Capital
Town
Airport
Road
International Boundary
Boundaries are not necessarily authoritative.
175°30'E
174°00'E
19°00'S
21°00'S
Sea Star Fishing Company Ltd.
Alata Is.
Ha'atafu
Ha'akili
Ha'avakatolo
Polo'a Is.
Motutapu Is.
Eua Iki Is.
Te'eku
Nukunuku
Navutoka
Kolonga
Talafo'ou
Niutoua
Ha'utu
Pea
Mu'a
Houma
Utulau
Vaini
Fatuma
Ha'asini

I. PROJECT DESCRIPTION

1. The Fisheries Development Project Loan for US$2.49 million was approved in September 1990 and implemented over a period of six years between mid-1994 and early 2000. The Project aimed to assist the Government of the Kingdom of Tonga (the Government) to develop the infant albacore tuna fishing industry, which had been identified as a high priority under the Fifth Five-year Development Plan. Its main objective was to improve the efficiency and accelerate the growth of the commercial tuna fishing industry. The Project was expected to contribute to employment, income generation, and foreign exchange earning; help progress toward a positive trade balance; and to provide new investment opportunities in related activities including fish processing. The rationale for the Project was that the offshore zone of the seas within Tongan territories supported the South Pacific's largest albacore resource, but this resource was substantially under-exploited by both Tongan and foreign-owned fishing vessels.

2. Having recognized the scope this resource offered to accelerate production and diversify the economy, the Government had allocated T$4 million (32 percent) of its fisheries development expenditure to new fishing vessels under the Fifth Five-year Development Plan (1986–1990). This step followed an attempt by the Government a decade earlier to establish a local commercial tuna fishing industry that had failed owing to unsuitable secondhand vessels and shortages of trained officers and crew. The experience prompted the Government to seek grant aid from Japan, which was used to purchase a commercial vessel (motor fishing vessel [MFV] Lofa) to assist in training officers and crew. This vessel demonstrated the potential of the fishery, with its first-year catch exceeding the combined catch of two older vessels over the past four years. Although the vessel generated an operating surplus in all years, it was only able to cover its full depreciation about one year in three. This was judged to be caused by the low tuna prices in the 1980s and the fact that it could not realize its full potential operating alone, since it had to spend time relocating the tuna each voyage.

3. The Government sought assistance from the Asian Development Bank (ADB) to establish a small commercial tuna fleet to complement MFV Lofa. In view of the disappointing performance of government-operated commercial enterprises, the Cabinet determined that the fishing company should operate at arm's length from the Government and should be fully privatized as soon as possible.[1] Although some private sector operators, including the Tongan Fishermen's Association, had already expressed interest in purchasing shares, it was expected that greater interest would be generated following several years of successful operation. In order to ensure early commercial success, the Government sought technical assistance (TA) directed toward the management and early privatization of the fishing company.

4. The Project as appraised was to provide for (i) two new, fully equipped, steel-hulled fishing vessels in the 120 gross ton class; (ii) construction of shore facilities including office, warehouse, workshop, and other facilities; (iii) equipment, furniture, facilities, and materials including supplies for shore facilities, vessel spare parts, and vehicles; and (iv) consulting services for a total of 5 person-months. A TA grant was to provide for (i) a corporate management and investment specialist for 8 months and (ii) a commercial fishing management specialist for 40 months. The major events in the project history are presented in Appendix 1.

[1] The Minister of Finance informed an ADB mission that, owing to the poor performance of the Commodities Board, "he did not expect the Cabinet and Parliament to approve the proposed fishing company unless a majority of shares of the new company are owned by the private sector from the start." Tonga Fisheries Development Project Back-to-Office Report, dated 4 July 1989.

5. The Project had been "relevant"[2] at appraisal because it was consistent with the Government's development strategy and with ADB's lending strategy for Tonga at the time of preparation. The Project provided a moderate development impact to the fisheries sector through proving the viability of the new tuna longline industry and supplying a number of trained crew members to the industry. The longline industry is thriving, with a rapidly increasing number of private boats. At the time of its completion, however, the Project could be evaluated to be only "partly relevant," because ADB's strategy had changed, was less supportive of public ownership of such a fishing company, and instead focused on reorienting governments to indirect support of investment market.

II. EVALUATION OF IMPLEMENTATION

A. Project Components

6. The project components had been modified over the implementation period, which extended over ten years, as opposed to the three years initially appraised. Initially Sea Star Fishing Company Limited (SSFCL) showed little interest in the Project as appraised and spent the first four years following its own approach. This involved the rapid build-up of a larger fleet of secondhand vessels of the same general type as the MFV Lofa and the operation of secondhand fish processing and storage facilities. These activities were funded by SSFCL and not under the loan. SSFCL had only been registered just prior to loan negotiation and its management and board were not involved in project design; they thus had little or no ownership of the Project as appraised. Prior to loan effectiveness, SSFCL sought substantial changes to the Project, including a request that the loan should be used as an equity contribution to SSFCL and that SSFCL should be able to use the loan to purchase secondhand vessels. These requests were turned down by ADB. In 1993, SSFCL indicated its intention to cancel the loan but, after a further year of high-level discussions, the Government and SSFCL eventually requested that ADB approve loan effectiveness in March 1994. ADB prepared the project administration memorandum in July 1994.

7. The project components were implemented broadly as specified during appraisal. Some modifications were made to the fishing vessels to improve their cost effectiveness. The vessels' specifications were modified to reduce crew size, lower fuel consumption and provide the handling and chiller capacities to handle fresh fish for the sashimi trade in addition to the capacity to catch and freeze albacore for the cannery trade and by-catch.[3] Agreement was eventually reached with ADB to permit procurement of secondhand vessels as a means of improving the financial viability of the Project (para 19). These modifications were justifiable and undoubtedly improved the performance of the Project. In addition to the changes in the vessels, there were also changes in fishing operations. Over time, the SSFCL fleet moved toward shorter trips and the fishing of closer waters to accommodate the handling of fresh fish exports. This meant that the opportunities to obtain access to cheaper fuel and bait when unloading at canneries in American Samoa were reduced.

8. There were some modifications to the shore facilities designed to support the growing importance of both the fresh export and the domestic consumption markets. At appraisal, the

[2] This evaluation refers to the criteria used by ADB for its project performance audit report as set out in the *Guidelines for the Preparation of Project Performance Audit Reports,* September 2000.

[3] By-catch is a term used to describe fish species that are captured along with those targeted by the fishing operation. In this case, the by-catch comprised fish sold for consumption in Tonga and sharkfin.

shore facilities at Faua Harbor were intended to provide offices for SSFCL, a small warehouse, and a workshop to assist in servicing vessels. As 96 percent of the catch was expected to be marketed directly from the vessels at the canneries in Pago-Pago (American Samoa) and Levuka (Fiji), no provision was made for fish processing or storage in Tonga. During project implementation it became clear that, in order to serve both the fresh export and local markets, SSFCL would require refrigerated cold storage and fish processing facilities. The facilities that were established under the Project were modified to suit these requirements and now comprise one of the best fish handling and storage facilities in Tonga.[4] This modification has greatly improved the viability of SSFCL, and the fish handling facility has become the company's most valuable asset. Had the Project been implemented without delay, it is unlikely that any fish processing or storage capacity would have been created. The facilities were constructed in an area adjacent to the fish market rather than the originally planned location that was adjacent to the slipway. The location chosen seems well suited to SSFCL operations.

9. The consultant services component was originally intended to assist SSFCL in specifying and procuring the fishing vessels. It was modified to provide for a change in design of vessels and extended in duration to facilitate the procurement of secondhand vessels. These changes were necessary and improved the project performance.

10. On balance, the Project was "less than efficacious" in the extent to which it achieved its purpose. It did contribute to the policy goal of establishing a tuna industry and it did result in the establishment of shore facilities and a small fleet of fishing vessels. However, it did not meet its financial objectives and it has not yet fully met the institutional objective of privatization.

B. Implementation Arrangements

11. The structural elements of the implementation arrangements for the Project were closely aligned with the appraisal design, but the key implementing agencies did not always function as envisaged at appraisal. The key changes were that SSFCL was not fully privatized as envisaged and that it was not effectively managed and directed as anticipated. These changes were major factors affecting project performance.

12. The Government established SSFCL in June 1990 as a public limited liability company and designated it as the Executing Agency for the Project. SSFCL has an authorized capital of T$5 million, comprising 100,000 T$50 shares. To date 47,562 shares have been issued, of which the Government holds 63.1 percent with private companies including a foreign company and individuals holding the balance.[5] Whereas it was envisaged that the shareholding in SSFCL would be taken up by individual fishermen and fishing companies, this has not occurred.[6] The Government has moved from a position at appraisal where it wanted to sell its shareholding as quickly as possible to one where it advised SSFCL that it should sell its unissued shares before the Government's shareholding was made available for sale.[7] Owing to the poor financial performance of SSFCL, the Cabinet decided that it would be inadvisable to sell the Government's shareholding until the company was trading profitably.

[4] Two other companies have developed their own facilities, but they are not located adjacent to the harbor.

[5] A Japanese company involved in seaweed cultivation with SSFCL holds 19.1 percent, a Tongan company holds 17.6 percent, and 25 individuals hold the remaining 0.2 percent.

[6] The Tonga Fishermen's Association was expected to take up the majority of the shares, but this organization is largely defunct.

[7] Cabinet Decision 968, August 1998.

13. The corporate governance of SSFCL has not been effective. Unlike boards in some other Tongan State-owned enterprises that have intervened at times in executive and administrative matters, SSFCL's board met infrequently and only 2-4 times a year to decide major matters such as new investments, changes in business scope, and the issuing of shares to new business partners.[8] The board did not closely monitor the performance of the firm and did not fully utilize its own capacity to provide strategic guidance and oversight of the company's performance. Although the Articles of Association of SSFCL provided for eight directors, no effort seems to have been made to expand the board by recruiting other members from the private sector as envisaged at appraisal. During the first four years, the Project was managed by the secretary for finance, whereas the task required the full-time attention of a managing director. Subsequently, the secretary resigned from the Ministry of Finance (MOF) and took over management of SSFCL, which meant that the Project had strong financial guidance, but it was not complemented by commercial fishing operational guidance.

14. Despite the fact that the Government is the major shareholder and has been obliged to provide SSFCL with additional working capital, it has largely remained remote from, and poorly informed about, the operation and performance of SSFCL. There has been little formal reporting from directors to government and, to a large extent, SSFCL operated independently of government and other parts of the fisheries industry. SSFCL has not been a participant in the Tonga Fish Exporters' Association and does not appear to have built strong links with other stakeholders in the industry.

C. Project Costs

15. The estimated cost of the Project at appraisal was US$2,650,000 of which US$2,400,000 or 91 percent was expected to be the foreign exchange cost. The appraisal estimate included physical contingencies of 10 percent (15 percent on consultant services) and a price escalation contingency totaling US$250,000. The actual project cost was US$2,589,292 or 98 percent of the appraisal estimate (Table 1). The fishing vessels were approximately 24 percent under the appraisal estimate (including contingencies) while the shore facilities and consultant services were 131 and 56 percent, respectively, above the appraisal estimate. The higher-than-expected cost of the shore facilities resulted from the modifications to the facilities outlined in para. 8. Local costs were estimated to comprise 13 percent of the total compared with the 9 percent expected at appraisal.

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[8] SSFCL has a board of directors comprising the chairman who is the Crown Prince, the managing director, a Government representative who was until October 2000 an official of the Ministry of Fisheries or the former Fisheries Department, and a representative of private shareholders.

Table 1: Detailed Cost Estimates
(US$'000)

Item	Appraisal Estimate Foreign Exchange	Appraisal Estimate Local Cost	Appraisal Estimate Total Cost	Actual Foreign Exchange	Actual Local Cost	Actual Total Cost
A. Fishing vessels	1,671	5	1,676	1,554	–	1,554
B. Shore facilities and vessel spare parts						
1. Office and warehouse	50	150	200			
2. Office furniture/ equipment	10	20	30			
3. Workshop tools/ equipment	15	10	25			
4. Vehicles	19	15	34			
5. Spare parts	80	6	86			
Subtotal (B)	174	201	375	533	332	865
C. Consultant services	93	10	103	161	–	161
Total base cost (A+B+C)	1,938	216	2,154	2,248	332	2,580
D. Physical contingencies	198	21	219	–	–	–
E. Price contingencies	237	13	250	–	–	–
F. Service charge	27		27	9	–	9
Total project cost	**2,400**	**250**	**2,650**	**2,257**	**332**	**2,589**

16. The financing plan for the Project envisaged that ADB would finance 91 percent of the total cost, comprising the entire foreign exchange component. SSFCL was envisaged as financing all local costs. At completion, ADB had financed 96 percent (US$2,489,292) of the total project cost.

D. Project Schedule

17. The Project was implemented over ten years rather than the three years planned. The initial four-year delay prior to loan effectiveness resulted from the reluctance of SSFCL to follow the approach outlined in the Appraisal Report. The remaining three years of delay were largely caused by difficulties associated with the procurement and construction of the project vessels. The delayed project schedule had a major negative impact on the Project, as it meant that most of the associated TA was provided prior to the provision of the vessels and facilities that the TA was intended to support. It also meant that SSFCL had already accumulated large losses and dissipated much of its capital by the time the Project commenced.

E. Engagement of Consultants and Procurement of Goods and Services

18. All procurement under the Project was conducted in accordance with ADB's *Guidelines for Procurement*. Provision was made for procurement of five person-months of consulting services from a tuna longline shipbuilding specialist under the loan. Two consultants were ultimately recruited for two different tasks for this purpose. The first consultant was a naval architect who had been involved in the pre-appraisal specification of the design of fishing vessels. The second consultant was a marine surveyor who was recruited to assist in the procurement of secondhand vessels. The consultants were engaged in accordance with ADB *Guidelines on the Use of Consultants*.

19. Procurement of the fishing vessels presented major difficulties and was one of the main reasons for delays in the Project. The original effort to procure new fishing vessels was abandoned in January 1996 when the lowest responsive bid (US$5.7 million) was almost three times the appraisal estimate (including contingencies). SSFCL requested retendering, but ADB suggested that first, the causes of the tender failure should be examined. ADB was concerned about the implications for the financial and economic viability of the Project. A special loan administration mission determined that secondhand vessels would result a better returns and sought clarification of ADB's policy concerning such purchases. The Office of the General Counsel indicated that ADB's procurement guidelines allowed such purchases provided that there was competition among the suppliers and that the investments were economically viable. ADB staff found that purchase of secondhand vessels appeared to be financially sound based on the price quoted on a vessel by a cannery in American Samoa and the past catch rates that had been achieved by SSFCL. However, the staff pointed out that catch rates had recently fallen and that, if these catch rates were to remain low, the vessel would not be financially viable. Thus, staff recommended that ADB cancel the fishing vessel component, leaving only the shore facilities as physical works.

20. ADB regarded the proposed change in procurement to be a major change in implementation arrangements requiring Board approval. ADB advised the Government that it would seek Board approval and noted the risks that could be associated with the investment (e.g., low catch rates may persist; procurement may not be competitive and would require an independent expert assessment of suitability; public sector investment in fishing operations have proven not to be successful and hence privatization of SSFCL was urgently required; and the procurement may further delay implementation). A no-objection Board paper was prepared to seek approval for the change in the mode of procurement including the purchase of secondhand vessels and procurement under procedures described as ' limited international purchasing." Ultimately ADB agreed to the procurement of discounted, partly-built US vessels (US$1,553,468) that were located through the tendering process. As the vessels were under construction for specific purchasers and were purpose-built vessels, they were judged to meet the intent of the classification of secondhand vessels. The vessels more closely met the needs of SSFCL in relation to fuel and frozen hold capacities than any other vessels on offer. The vessels were eventually delivered in January and March 1999 and are considered to be well suited to the needs of SSFCL.

21. The design and tender documents for the shore facilities were prepared by a domestic architect, and the contract for construction (T$386,700) was awarded to a domestic company following local competitive bidding. The contract for supply and installation of refrigeration equipment (US$237,165) was awarded to a New Zealand company following international competitive bidding. A local project management company was contracted to coordinate the work of the two contractors. The construction and equipping of the shore facility was eventually completed in October 1998.

F. Performance of Consultants, Contractors, and Suppliers

22. The two consultants contracted under the loan performed satisfactorily. The naval architect revised the design and specifications for new fishing vessels, prepared tender documents and assisted with the evaluation of bids. Although generally performing satisfactorily, the consultant's estimate of the likely cost of the specified vessels was almost 75 percent below that of the lowest responsive bid. Had it been known earlier that the vessels would be so expensive, SSFCL might not have wasted time attempting to procure such vessels. The marine surveyor prepared specifications and bidding documents for the procurement of secondhand

vessels in consultation with SSFCL and then inspected potentially suitable vessels. Ultimately the surveyor monitored the construction of the contracted vessels and assisted in their delivery and sea-tests. Judged by the appropriateness of the vessels that he recommended SSFCL procure, this consultant has performed satisfactorily although requiring substantially more time than expected. The cost of these services (US$115,308) was equivalent to 7 percent of the total cost of the vessels, which is not excessive.

23. The domestic company contracted to construct the shore facilities had difficulty meeting the financial standards required for pre-qualification and agreed to obtain additional financial support. The work of the construction contractor was not completely satisfactory, as they failed to remedy several defects to the satisfaction of SSFCL resulting in SSFCL's retaining a portion of the payment. These defects have since been remedied.

G. Conditions and Covenants

24. The Borrower and SSFCL complied with the majority of the general loan covenants but they have either not complied with, partly complied with, or are still to comply with some important project-specific covenants (Appendix 2). The Borrower's responsibility for causing SSFCL to carry out the Project with due diligence and efficiency and in conformity with sound administrative, financial, commercial, and fisheries practices was not fully complied with as evidenced by the poor financial and operational performance of SSFCL over the last several years. Also, the Borrower failed to ensure that the activities of its departments and agencies were conducted and coordinated according to sound administrative policies and procedures with respect to SSFCL's conduct of the Project. A core covenant that has not yet been met concerns the full privatization of SSFCL. The Borrower attempted to fully privatize the company in mid-1998 following the recommendation of an ADB mission, but the Cabinet did not accept this initiative from MOF. The Borrower is currently processing the full privatization as recommended by the Project Completion Review Mission.

H. Disbursements

25. The disbursements under the Project were undertaken following the direct payment and imprest account and statement of expenditure procedures approved by ADB. SSFCL as the Executing Agency operated the Imprest Account and, although some expenditures had to be disallowed, the account has been fully liquidated. Owing to delays in the Project, the overall rate of disbursement of the loan was slow.

I. Environmental and Social Impact

26. The Project does not appear to have generated any adverse environmental impacts. The fish catch of SSFCL was at a maximum less than 15 percent of the conservatively estimated annual sustainable tuna yield from Tonga of 4,000 tons (t).[9] The fishing techniques used do not lead to excessive by-catch nor do they disturb the ecology of fishing areas. Longline fishing, unlike drift netting and some other fishing methods, can be targeted at specific species and hence has little impact on other species.[10] Although there were reports of some illegal finning of live sharks, fish handling techniques are humane. The shore facilities provide adequately for the

[9] Ministry of Fisheries Draft Tuna Management Plan, page 9.

[10] There have been no reports of dolphins or sea turtles being caught, although this is understood to be a problem elsewhere.

disposal of liquid and solid wastes and are subject to inspection as part of a Hazard Awareness and Critical Control Point scheme. The project vessels use Freon as a refrigerant, which contributes to the greenhouse effect through its impact on the ozone layer. However, given that the refrigeration systems are well maintained, the escape of Freon to the atmosphere should be minimal.

27. The sociocultural impacts of the Project are difficult to assess. The Project has contributed to the development of the tuna fishing industry and virtually all crew and a high proportion of the senior deckhands in the industry are Tongan. However, it is becoming evident that the successful operation of a commercial fishing vessel places substantial demands on officers and crew. These demands include the need to maximize the time spent on fishing and to minimize time ashore. This has led to some difficulties and at present most of the vessels operating in the industry are operated by expatriate captains. Efforts are being made to introduce fishing on Sunday, which has not previously been the Tongan custom. In the longer term it is likely that some of the Tongan crews will develop the skills and aptitude needed for successful operation as captains of fishing vessels, but this may take several years. In the meantime it is likely that the industry will have a high proportion of expatriate captains and senior officers.

J. Performance of the Borrower and the Executing Agency

28. The performance of the Government, as the Borrower, was less than satisfactory because it failed to meet some key obligations under the Loan Agreement. Initially the Government was unable or unwilling to convince SSFCL to take the loan, and hence it was unable to meet the conditions set down for loan effectiveness. Although the government was entitled to appoint at least two directors to the board of SSFCL representing the then Fisheries Department and MOF, it only exercised this entitlement during the first four years.[11] The Borrower appeared to have done little to "cause SSFCL to carry out the Project with due diligence and efficiency," given that SSFCL traded at a loss for most of the period. The Borrower failed to provide support to SSFCL through its departments and agencies in a coordinated manner. The Government did take some action to diagnose the problems with SSFCL although only at a very late stage. A former executive of another public company was commissioned to carry out an in-depth review of SSFCL in mid-1999, and this review is understood to have recommended that management of the fishing operations should be out-sourced and that the Government should provide further working capital. The Borrower has not actively promoted private investment in SSFCL and has not sold its own shareholding, in potential contravention of the loan covenant. Failure to privatize SSFCL in mid-1998, as recommended by ADB, may have contributed to the subsequent drastic downturn of the operational and financial status of SSFCL. The Borrower is currently exploring options for full privatization of SSFCL as proposed by the Project Completion Review Mission, in the hope of recruiting capable private investor(s) and achieving the Project's long-term goal of developing the fisheries sector.

[11] After four years the MOF representative resigned from the ministry to become managing director of SSFCL and his position was never refilled. The representative from then Fisheries Department has recently retired from the Ministry of Fisheries but still remains on the board pending appointment of a replacement.

29. SSFCL as the Executing Agency performed below expectations (Appendix 3). The financial performance of the company has been poor, largely as a result of poor performance of both the project-financed vessels and the other vessels in its fleet. Fish catches have been below expectation and SSFCL has been unable to develop an efficient fishing operation, resulting in the need to out-source management of its fleet and shore facilities. There has been a high turnover of fishing captains and crew in part because of the inability of SSFCL to implement a crew compensation package that provided adequate incentive for good performance. Financial management of the company has been inadequate to cope with the high level of debt resulting from the purchase of inappropriate vessels prior to loan effectiveness. Marketing of fish catch has also been difficult and has now been out-sourced. Early efforts to develop the fresh export trade were ambitious and highlighted the lack of operational expertise in the company. The board did not revise the company's strategy in the light of poor performance and allowed the problems to remain unaddressed. Management did not take the measures needed to improve the operations of fishing vessels and was apparently unable to make best use of the resources available. A decision to re-assign the Project's new fishing vessels to Australian waters without advising ADB or the Government was inappropriate. The loan had been provided to assist in the development of the tuna industry in Tonga and it is difficult to accept that sending the vessel and crew to Australia was an appropriate means to that end.[12] There is no indication that SSFCL followed a sound and transparent process in reaching the management agreement with the Australian charter operator. The efforts of SSFCL in successfully pioneering a new market in the cultivation of edible seaweed (limu tanga'u) are commendable, but this achievement does not contribute to the project objective of developing the tuna industry in Tonga. Overall, the performance of SSFCL has been more than disappointing. While undoubtedly the low prices and the temporary closure of the market for albacore in 1998 contributed to the problems, other fishing companies in Tonga were able to overcome these problems and eventually prosper. ADB over-estimated the capacity of SSFCL to manage the start-up of a fishing company and under-estimated the importance of basing the company around proven expertise in fishing operations.

30. At this stage SSFCL has very limited capabilities and is unlikely to be able to operate without the support of an external manager. It is in a difficult financial position where it has had to seek accommodation with its creditors for the re-scheduling of its debts. Apart from the two almost new project vessels, only one other (SS1) is operational.[13] Most of the captains and senior deckhands trained by SSFCL are now working for other companies and, while contributing to the growth of the industry, are no longer assets that SSFCL can draw upon. The shore facilities are well located and are currently being operated successfully by the managing agent. They have excess capacity and could be used more fully. SSFCL has not reached a scale of fishing operations where it could become profitable nor has it the option of funding future expansion from its cashflow.

K. Performance of the Asian Development Bank

31. The performance of ADB in formulating the Project could have been improved in several ways. First, the formulation should have been delayed so that it could have involved SSFCL, thus allowing the board and management to develop a sense of ownership for the Project. This would have necessitated a longer period of formulation and additional loan processing costs. It

[12] SSFCL Management justified this decision on the basis that the crew were to be trained in Australia, however such training was unlikely to be appropriate for operations in Tongan waters.
[13] SS4 is currently being sold, but it is unlikely that the remaining vessels (SS2 and SS3) will be salable.

would, however, almost certainly have led to a better outcome. Secondly, the project design should have considered the economies of scale associated with the fishing industry. It is unlikely that a fleet of three vessels as envisaged at appraisal could achieve the economies of scale needed for sustainable long-term growth. Had there been interaction between the board and management of SSFCL on the one hand and ADB staff on the other, this design problem would have been identified and most likely overcome. Alternatively, ADB should have drawn more heavily on specific expertise in the fisheries sector in developing the project design. This would also have avoided the overly ambitious assumptions on catch rates, which were approximately twice those actually achieved. Above all, ADB should not have supported development of a publicly owned company without adequate guarantee about its management.

32. During the first six years of the Project, ADB's role in facilitating resolution of the issues was of limited effectiveness. It seemed unable to bring the parties together to identify and address the issues delaying implementation. Within ADB there was a range of views about the appropriate way of dealing with the Project, and there were sporadic and sometimes uncoordinated interventions by numerous officers. The situation improved in 1996 after project supervision was transferred from headquarters to the South Pacific Regional Mission, as that presented greater opportunity for ADB staff to interact with the parties. ADB effectively supervised implementation of the vessel procurement and construction of the shore facilities. The development of new procurement guidelines to allow procurement of secondhand vessels using limited international purchase was commendable, demonstrating that ADB has the capacity to modify its procedures where appropriate. Clearly there was an enormous commitment of staff time to bring about this change, and some streamlining of the process would be desirable. At the end of the Project, ADB advocated that management of SSFCL vessels be contracted out, and this has proven to be most beneficial.

33. Through substantive efforts, ADB to date has had some impact in facilitating the privatization of SSFCL and the divestiture of the Government's shareholding. There had been apparent reluctance of the Government to dispose of its shareholding in the past. Part of the reluctance reflected a lack of agreed mechanisms for determining the timing of sale of government investments and a lack of understanding of the benefits that can be obtained from privatization, and ADB had an important role in helping Government to develop such mechanisms and understand the importance of privatization. Efforts have been made by recent ADB missions to obtain Government's commitment to a time-bound plan to divest all of its shares, and the Government is currently pursuing an option of selling the Government shares while inviting additional investment that can bring in more vessels to achieve scale economies in the operations of SSFCL. The board of SSFCL has indicated its appreciation of ADB's efforts to encourage the privatization of the company.

III. TECHNICAL ASSISTANCE

34. The TA for *Institutional Strengthening of SSFCL and Expediting the Sale of SSFCL Shares* accompanied the loan.[14] The grant originally provided for 40 person-months consisting of (i) six months for advisory consulting services to assist in establishing the organizational setup of SSFCL and expediting the sale of its equity shares to the private sector, and (ii) 34 months to help strengthen operational aspects of SSFCL to ensure its sustained profitability. Prior to loan negotiation, a further 8 months was added, bringing the services to 8 and 40 person-months, respectively. Prior to commencement, MOF and SSFCL requested and ADB

[14] TA No. 1367-TON, for US$770,000, approved on 6 September 1990.

approved changes to the scope of the TA. Instead of two consultants, three were to be recruited to provide services covering (i) corporate management and privatization, (ii) tuna longliner operations and maintenance, and (iii) operation and maintenance of cold storage. Individual consultants were recruited and contracted following ADB's *Guidelines on the Use of Consultants* and commenced in September 1996.

35. All three consultants contracted under the TA performed satisfactorily, although with varying overall impact on the project outcomes. The cold storage consultant initially trained SSFCL staff in the handling of seafood and use of cold storage at the processing area that SSFCL had previously acquired in the Small Industries Center. The Hazard Awareness Critical Control Point procedures and manuals that were developed have proven most appropriate and helped SSFCL to enter the fresh sashimi export trade. SSFCL is now able to conform with international standards for seafood processing. Subsequently, the consultant supervised the design and procurement of refrigeration equipment for the new shore facilities. Owing to delays in the construction of the shore facilities, however, the consultant was unable to commission the new equipment as intended prior to completion of services in March 1998.

36. The tuna longline fishery specialist commenced services in October 1996 and assisted SSFCL in re-entering the fresh sashimi export fishery by recommending modifications to the two existing vessels (SS1 and SS2) with this potential. The consultant re-trained captains and crew to operate more efficiently both for fresh fish and cannery operations through the conduct of workshops and development of well-documented and practical operational manuals. The effectiveness of this consultant's contributions, however, was limited by overlapping responsibilities and lack of clear lines of authority within SSFCL. Through the development of fishing contracts with each captain, the consultant attempted to instill a culture of accountability and reward for effort in fishing captains and crew. Unfortunately, these performance-based contracts were not consistently applied by SSFCL management, resulting in disappointment and turnover of captains and crew.[15] Owing to delays in procurement, the consultant was unable to assist with the training of captains and crew for the new project vessels. The overall effectiveness of this aspect of the consultancy services was limited by the delay in other aspects of the Project.

37. The management and privatization specialist's assignment commenced in October 1996 and, after two extensions totaling a further six months and several breaks of service, it was completed in August 1999 with a final contribution in February 2000. The management support aspects of the consultancy were partly successful. The consultant implemented a Management Information System, which is still in use and relates the physical performance of each vessel to its contribution to the profit of SSFCL. The consultant improved SSFCL's financial records and operational budgets, but currently there is no routine assessment of actual performance against budget. The consultant also recommended a revised management structure for SSFCL along with job descriptions for each position. Although the recommendations had the potential to improve the management and operation of SSFCL, the consultant was unable to actually identify and address the persistent weaknesses in the overall management of SSFCL. Such identification and analysis should have formed a part of the output from the consultant. The consultant noted that an active and involved board of directors is essential in any company, but did not provide training or guidelines to assist the directors in carrying out their duties.

[15] It was reported to the Project Completion Review Mission that at least 50 percent of all tuna crew operating at present were trained by SSFCL.

38. The majority of the inputs by the consultant were efforts to privatize SSFCL and, owing largely to factors beyond the consultant's control, these efforts were only partly successful. The consultant prepared a discussion paper outlining options and a strategy for privatizing SSFCL at the earliest possible time in accordance with the loan covenant. In May 1997, when it became clear that no further action could be taken on the privatization until the Government determined its approach to the options, it was agreed to suspend further inputs. The consultant returned to finalize the privatization in May 1998, although no decision had yet been made by the Government. In August 1998, the Cabinet decided not to accept the consultant's recommendation for selling only the Government's shares because this option could not provide any fresh financial inflow. Instead the Cabinet directed SSFCL to first sell the 61,593 unissued shares to improve SSFCL's financial position. Since this placed the responsibility for sale of shares on the SSFCL board, the consultant then assisted SSFCL in preparing the documents needed for the sale of unissued shares to take place. The consultant completed this second input in September 1998. Following a further extension of the contract, the consultant returned for a final input from May to August 1999. Given that the financial status of SSFCL had worsened dramatically, the consultant advised against any effort to openly promote the sale of shares as had been proposed in 1997. Instead, the consultant suggested that SSFCL should consider an "opportunity-based sale" whereby a company might be willing to join forces with SSFCL to provide capital, operation management, and additional fishing vessels to improve output. The consultant suggested that this could involve establishment of a joint venture, leasing out of operating assets or a management contract with a third party. These suggestions were useful and helped pave the way for the management contract that SSFCL entered into following the conclusion of the consultant's inputs.

IV. EVALUATION OF INITIAL PERFORMANCE AND BENEFITS

A. Financial Performance

39. The financial performance of SSFCL has been disappointing. At the end of 1999, SSFCL had accumulated losses of T$3.06 million and, with paid-up capital of only T$1.92 million, there was a deficit of shareholders' funds of T$1.14 million. SSFCL's current assets were T$0.45 million, while current liabilities were T$1.09 million, providing a working capital deficit of T$0.65 million. SSFCL had noncurrent assets valued at T$4.83 million, while its noncurrent liabilities were T$5.32 million. Apart from the first year of operation, SSFCL has been unable to achieve the financial ratios that were established as covenants in the Loan Agreement. SSFCL has enjoyed the full range of industrial development incentives provided by the Government since its inception and has paid no duties or income tax over that period. Since it retained profits during its early years of operation, it has not paid dividends to any shareholders, including the Government.

40. The Project was to have been financed by the proceeds of the Subsidiary Loan Agreement between Government and SSFCL, which would meet all foreign exchange costs, and by the Government's equity contributions to SSFCL, which were judged to be adequate to meet all local costs. Since most of the early expansion of the fleet was financed using share capital, SSFCL has had to draw on other sources of funding, including term loans with the Tongan Development Bank and the MBf, a Malaysian bank. It also purchased one of its vessels using credit supplied by a cannery in Pago-Pago. The foreign exchange risk associated with the Subsidiary Loan Agreement and borne by SSFCL may prove to be substantial, because the US dollar has appreciated 49 percent against the pa'anga since appraisal.

41. At appraisal it was estimated that the Project would have a financial internal rate of return (FIRR) of about 22 percent and a net present value (NPV) using a discount rate of 5 percent, of T$5.26 million. The FIRR and NPV have been recalculated using the actual performance to date and the projected future performance based on continuation of the present management agreement (Appendix 3). This analysis indicates that, excluding the recently developed seaweed harvesting operation, the FIRR is negative and the NPV of the Project using a 5 percent discount rate is minus T$8.03 million. The heavy losses incurred to date coupled with the small scale of its current operation means that SSFCL has little prospect for recovering past losses. Without substantially increasing the scale and efficiency of its operations, SSFCL will not be able to generate sufficient revenues to replace its assets nor to repay its loans. If SSFCL were to be recapitalized with four additional vessels and if the seaweed business were included, it is estimated that the FIRR would increase to about 15.7 percent. However, such recapitalization would not be supported without a major change in SSFCL's management and governance.

B. Economic Performance

42. The economic return to the Project was estimated to be 20 percent at appraisal. During the project completion review, the economic return was not recalculated mainly due to the lack of proper information on shadow rates for labor, foreign exchange, and management to apply with; the return was to be nowhere near the expected level; and the economic return would be close to FIRR as very few transfer payments were involved and no taxes were applied to inputs or outputs. Although the return has not been recalculated, the base case return is expected to be highly negative, which is comparable with the financial return.

C. Attainment of Benefits

43. SSFCL vessels have delivered a total fish catch in excess of 3,300 t since 1994 averaging about 475 t per year. Of this, about 71 percent has been marketed to canneries, 16 percent sold on local markets, and about 13 percent exported as fresh sashimi-grade fish. The average prices received for the fish marketed to canneries have been below expectations (T$2,265/t in 1990 constant T$). The price received for large yellowfin and bigeye suited to the fresh export trade has been higher than that envisaged at appraisal (T$1,359/t), since these fish were then assumed to be consumed locally. Under the new manager of SSFCL, the emphasis has shifted to the higher value fresh sashimi export trade, which accounts for about 27 percent of current production.[16] However, owing to the contraction in the size of the fleet as the older vessels became obsolete, the total fish catch was only 243 t in 1999 and is projected to reach 334 t in 2000.

44. The initial operation of the Project has assisted in the development of the tuna fishing industry in Tonga. There are currently about 13 vessels fishing for tuna in Tonga with six companies involved. Fish exports have grown at an annual rate of 20 percent in volume and 38 percent in value since 1994, and most of the growth has come from the tuna industry.[17] The projected foreign exchange value of exports in 2000 is estimated to be in excess of T$2.5 million.[18] The industry is providing employment for an estimated 100 people on fishing vessels

[16] It is projected to increase to at least 35 percent in 2001.
[17] The actual value of exports is significantly greater than that shown in the official statistics, since most tuna is sold on a consignment basis and the value recorded on export documentation refers only to the local market prices.
[18] Mission estimate based on projected total FY2000 tuna catch of 576 t with 60 percent albacore valued at T$3,200/t, 20 percent fresh export valued at T$10,600/t, and 20 percent local valued at T$2,500/t.

and a further 50 with shore jobs, including fish handling and processing, vessel servicing, transport, and port services. Details of the performance of SSFCL are provided in Appendix 4.

V. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

45. The Project was eventually implemented largely as conceived apart from the extensive delays in implementation and the failure to fully privatize SSFCL as planned. Based on the criteria set down by ADB for assessment of project performance[19], the Project is judged to be less than successful. This assessment is based on the fact that it was inefficient, because it did not generate the expected returns and thus has necessitated further government support. In addition, the Project has not yet succeeded in establishing SSFCL as a self-sustaining private company as was envisaged; hence, unless further capital and management inputs are introduced, it is less likely to be sustainable. The Project was assessed to have had a moderate development impact and it is relevant to the Government's development strategy. Tonga's tuna fishing industry has grown dramatically and now seems poised to become a major export earner alongside squash exports. In addition, the Government and other shareholders in SSFCL have indicated that they remain committed to the privatization of the company as soon as possible. Arguably, the Project contributed to the growth of the industry if only by signaling the clear determination of the Government to foster the industry. The Project has been ranked as less efficacious, because although it has been disappointing in relation to fishing operations, the development of the shore facilities has helped build the basis for the more profitable export of fresh sashimi. It has also contributed by helping to train a large number of fishing crew who are now working on vessels across the industry.

46. The future of SSFCL is highly uncertain, as it is currently in a precarious financial position with little or no prospect to trade out of its difficulties. It urgently requires an injection of both capital and fishing operation expertise as well as an expansion of the scale of its operations. Although the current arrangement, whereby management has been contracted out to a third party is improving the situation, it is at best a temporary measure. The management contract may be terminated with one month's notice, although SSFCL is in the process of negotiating the sale of its shares to a company that has indicated it would take over full management responsibility. While this company and other parties are showing interest in taking over the operations and shares in SSFCL, the current value of the company is well below the face value of the shares. The real value of SSFCL depends on the synergies that a new owner will be able to generate by integrating the company with their existing operations. This value cannot be easily assessed by either independent valuers or by the Government; consequently the best prospects for successful disposal of the company will depend on creating an environment that will attract the full range of potential bidders. The Government can assist in creating that environment by indicating its willingness to dispose of its shareholding to the best reasonable offer, bearing in mind the present state of the company and its future prospects.

47. The TA accompanying this loan was largely implemented as conceived and has had a beneficial impact overall, particularly in relation to the training of fishing crew and the operation of fish handling facilities. Although some aspects of the management of SSFCL such as the management information system and financial procedures were improved, and the improvements have remained in place, overall the TA was unable to address fundamental weaknesses in the

[19] *Guidelines for the Preparation of Project Performance Audit Reports*, September 2000.

management of the company and the operations of the board of directors. Similarly, although the TA provided useful templates and action plans for privatization of SSFCL that may find use elsewhere in Tonga, it was ineffective in bringing about full privatization.

B. Lessons Learned

48. This Project pioneered the development of the tuna industry in Tonga, and while it has been less than successful, it was always likely that it would face unanticipated difficulties. The following lessons have been learned:

(i) The history of disappointing performance of government-owned and operated fishing enterprises throughout the Pacific reinforces the view that there is an incompatibility between commercial fishing and state-ownership. The appropriate role for government in the development of a fishing industry is to create a business environment that provides investors and operators with comparable conditions to those faced by any other business sector in the economy. In Tonga, government policy initially sought to create a monopoly for SSFCL in the tuna fishery, although this position was abandoned in 1995. Government policies now treat fishing industry operators comparably to those in other business sectors, and its emphasis is being re-directed to appropriate oversight of the management of the tuna resource base. The performance of this Project also reflects the fundamental importance of ensuring that any commercial fishing company is based on excellent management of the fishing operation.

(ii) It is clear that privatization was a new and difficult area for the Government and particularly for Tonga as a small island economy. Given this context, prior to the formulation the Project, ADB should have helped the Government to develop clear policies, appropriate to a small island state, concerning the criteria for and timing of the privatization of government shareholding. These policies should have been reflected in the Loan Agreement. In addition, given the substantial early delays in the Project, the process of re-appraising the Project should have been more thorough and it should have been conducted prior to ADB approving loan effectiveness.

(iii) The formulation of the Project should have been re-scheduled so that it could involve the management and directors of SSFCL. In this way, it would have been possible to use their knowledge and create a sense of ownership.

(iv) More attention should have been given to forward planning in the original project design. Arguably the Project could never have succeeded if it were limited to the planned three vessels. In this regard the board and management of SSFCL were following the right strategy (fleet expansion) but using the wrong tactics (old vessels and inexperienced crews).

C. Recommendations and Understandings

1. Related to the Project

a. Further Monitoring

49. Progress with privatization of SSFCL needs to be closely monitored by ADB as part of its ongoing portfolio review and supervision of other projects in Tonga. The action plan agreed between the Government and the Project Completion Review Mission, with the target of

completing the process of privatization no later than June 2001, provides a basis to monitor progress.

b. Covenants

50. The Borrower should take action to ensure that the covenant relating to disposal of the Government's shareholding is complied with by 30 June 2001. In the event that this is not considered possible or desirable, the covenant should be re-negotiated to including a binding timeframe.

51. The Borrower should also take action in relation to its loan covenant to re-appoint representatives of MOF and the Ministry of Fisheries to the Board of SSFCL.

c. Further Action

52. Further expansion of the tuna industry to the planned target of 25 vessels as set out in the draft Tuna Management Plan will be likely to exceed the capacity of the present wharf facilities to handle the fleet along with current requirements. The Government should plan for the future needs of the industry.

53. The Government should seek external support as needed to facilitate the process of privatization of SSFCL.

d. Additional Assistance

54. The Government is faced with the need to put in place measures that will ensure that the fishing industry is able to operate in a business environment that is comparable with that in other neighboring countries and that maintains competitive neutrality with other sectors in Tonga. As part of the process of establishing that environment, the Government might consider seeking external assistance to help examine options for matters such as licensing of fishing vessels; duties and tax impositions; and the appropriateness of existing provisions for exemptions of new entrants among other matters.

APPENDIXES

PROJECT HISTORY

A. Project Processing to Loan Closing

Sep 1988	Fisheries Department & Food and Agriculture Organization feasibility study
May 1988	Fact-Finding Mission
Aug 1988	Fact-Finding Mission
Feb 1989	Appraisal Mission
Jun 1990	Sea Star Fishing Company Limited (SSFCL) formally established
Jun 1990	Loan negotiation
Sep 1990	Loan approval (Board)
Nov 1990	Loan documents signed
Mar 1994	Government requested Asian Development Bank (ADB) to approve loan effectiveness
Jun 1994	Original loan closing date
Jun 1994	Loan effectiveness
Jul 1994	Loan Inception Mission
Jan 2000	Loan closed

B. Consulting Services under the Loan

Nov 1994	Naval architect consultant recruited
Feb 1996	Naval architect completed assignment
Jan 1997	Marine surveyor consultant appointed
Mar 1999	Marine surveyor completed assignment

C. Consulting Service under the Technical Assistance

Aug 1994	SSFCL requested change in scope of technical assistance (TA) to provide more operational support
Jul 1995	Revised TA schedule and terms of reference submitted to ADB
Jan 1996	ADB approved Government request to change scope of TA
Sep 1996	Cold storage specialist (TA 1367 TON) commenced work
Jan 1997	Cold storage specialist completed first visit
Oct 1996	Tuna longline specialist (TA 1367 TON) commenced work
Oct 1996	Management cum privatization specialist (TA 1367 TON) commenced work
Apr 1997	Options paper prepared for further privatization of SSFCL
Dec 1997	Final report from management specialist
Jan 1998	Cold storage specialist returned to complete assignment
Mar 1998	Cold storage specialist completed assignment
May 1998	Management specialist commenced first extension
Sep 1998	Management specialist completed first extension
May 1999	Management specialist commenced second extension
Aug 1999	Management specialist completed second extension
Feb 2000	Management specialist completed addendum to final report

D. Procurement of Goods and Services

May 1995	SSFCL prepared for invitations to tender for tuna vessels
Nov 1995	Tenders issued for vessels
Feb 1996	SSFCL rejected tender offers on vessels that were substantially above estimates
May 1996	Government requested permission to purchase secondhand vessels
Jul 1996	ADB advised Government that it will seek Board approval for purchase of secondhand vessels but noted the risks in such investment
Sep 1996	Board paper prepared to recommend change in procurement procedures
Oct 1996	ADB Board approved change in procurement
Oct 1996	ADB approved purchase of secondhand vessels under Limited International Purchase subject to appraisal by the marine surveyor
Oct 1996	ADB approved SSFCL purchase of secondhand vessels
Jan 1997	ADB approved local competitive bidding for construction of on-shore facilities
Feb 1997	Design for on-shore facilities completed
Mar 1997	SSFCL issued tender documents for purchase of vessels
Sep 1997	Contract for cold storage approved
Nov 1997	Shore facility tender issued
Dec 1997	SSFCL contracts supply of tuna vessels
Jan 1998	Ministry of Lands, Survey and Natural Resources completed environmental impact assessment on on-shore facilities
Jan 1998	Contract awarded for project vessels
Feb 1998	ADB approved contract for construction of on-shore facilities
Oct 1998	Cold storage facilities completed at Fisheries Wharf, Ma'ufanga
Jan 1999	Fishing vessel Pakeina delivered
Mar 1999	Fishing vessel Tavake delivered

E. Project Implementation

Nov 1991	SSFCL purchased office/warehouse at State Industrial Corporation using own funds
Nov 1991	SSFCL requested approval to purchase secondhand vessels
Mar 1992	SSFCL purchased first of four secondhand vessels using own funds
Feb 1992	ADB rejected SSFCL request to use loan as government equity and the purchase of larger secondhand vessels
Mar 1992	Ministry of Finance asked ADB consider use of loan to finance government infusion of equity
Apr 1992	Chairman of SSFCL requested modifications to Project including loan-funded equity infusion and changed vessel specifications
Jun 1992	ADB proposed four options to Ministry of Finance regarding Project
Jul 1992	SSFCL purchased assets of fruit processing company including cold storage using own funds
Oct 1992	Executive director for Tonga met with chairman of SSFCL to review loan effectiveness difficulties
Jan 1993	SSFCL informally indicated its intention to cancel the loan
Sep 1993	ADB mission advised that SSFCL will proceed with the loan
Sep 1993	SSFCL finalized its memorandum and articles of association

Oct 1993	ADB advised Government that procurement of secondhand vessels was not possible
Nov 1993	SSFCL submitted the Subsidiary Loan Agreement
Apr 1994	Secretary for finance resigned and was appointed as secretary to SSFCL
Feb 1995	Supervision of Project taken over by the South Pacific Regional Mission
Mar 1996	ADB recommended re-evaluation of financial viability of Project
Apr 1996	Special Loan Administration Mission revealed Project was not viable with new vessels
Dec 1996	SSFCL incurred T$451,045 loss for year
Sep 1997	SSFCL obtained term loan to provide working capital from MBf Bank
Nov 1997	SSFCL requested extension of closing date to September 1998
Dec 1997	ADB sought SSFCL advice on reallocation of loan proceeds
Dec 1997	SSFCL incurred T$641,719 loss for year
Jan 1998	ADB approved reallocation of loan proceeds
Dec 1998	SSFCL incurred T$801,039 loss for year
Jan 1999	ADB-financed vessel Pakeina commenced operation
Mar 1999	ADB-financed vessel Tavake commenced operation
Apr 1999	Government provided SSFCL with additional operating capital
Jul 1999	SS6 (MFV Pakeina) sent to Australia
Dec 1999	Management of SSFCL fishing operations contracted out to Maui Pacific of Hawaii
Dec 1999	SSFCL incurred T$1,058,818 loss for year
Jan 2000	Loan closed
Jun 2000	Government provided SSFCL with additional working capital of T$600,000
Oct 2000	Project Completion Review Mission

F. Privatization of Sea Star Fishing Company Limited

Mar 1992	Japanese private investors expressed interest in 40 percent equity in SSFCL
Jan 1998	SSFCL entered the seaweed export business with Japanese company
Jun 1998	Japanese Company purchased 9,090 shares in SSFCL for US$300,000
Aug 1998	Cabinet decided (# 968) not to sell its SSFCL shares but for SSFCL to sell all unissued shares
Mar 2000	Tripartite meeting agreed on Memorandum of Understanding including a proposed revision of the Loan Covenant to transfer all shares by March 2003
Oct 2000	Three private companies indicated their interest in ownership of SSFCL
Oct 2000	Tripartite meeting agreed on a plan for privatizing SSFCL by mid-2001

COMPLIANCE WITH MAJOR LOAN COVENANTS

	Covenant	Due Date	Status
1.	The Borrower shall cause Sea Star Fishing Company Limited (SSFCL) to carry out the Project with due diligence and efficiency and in conformity with sound administrative, financial, engineering, environmental, commercial, and fisheries practices (Section 4. 01 [a], LA).	Throughout the Project	Partly complied with
2.	In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 6 to this Loan Agreement (Section 4. 01 [b], LA).	Throughout the Project	Partly complied with (see items 11-16 below)
3.	The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities is conducted and coordinated in accordance with sound administrative policies and procedures (Section 4.02, LA).	Throughout the Project	Partly complied with
4.	The Borrower shall furnish, or cause to be furnished, to the Asian Development Bank (ADB) all such reports and information as the Asian Development Bank shall reasonably request concerning (i) the Loan, and the expenditure of the proceeds and maintenance of the service thereof; (ii) the goods and services and other items of expenditure financed out of the proceeds of the Loan; (iii) the Project; (iv) financial and economic conditions in the territory of the Borrower and the international balance-of-payments position of the Borrower; and (v) any other matters relating to the purposes of the Loan (Section 4.03, LA).	Throughout the Project	Complied with. However, there were delays in providing audited financial statements
5.	The Borrower shall enable the Asian Development Bank's representatives to inspect the Project, the goods financed out of the proceeds of the Loan, and any relevant records and documents (Section 4.04, LA).	Throughout the Project	Complied with. Inspected by review missions

	Covenant	Due Date	Status
6.	The Borrower shall take all actions which shall be necessary on its part to enable SSFCL to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations (Section 4.05, LA).	Throughout the Project	Partly complied with
7.	The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and the Asian Development Bank and to accomplish the purposes of the Loan (Section 4.06 [a], LA).	Throughout the Project	Being complied with
8.	No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of the Asian Development Bank (Section 4.06 [b], LA).	Throughout the Project	Being complied with
9.	It is the mutual intention of the Borrower and the Asian Development Bank that no other external debt owed a creditor other than the Asian Development Bank shall have any priority over the Loan by way of a lien on the assets of the Borrower. To that end, the Borrower undertakes (i) that, except as the Asian Development Bank shall otherwise agree, if any lien shall be created on any assets of the Borrower as security for any external debt, such lien will *ipso facto* equally and ratably secure the payment of the principal of, and service charge and any other charge on, the Loan; and (ii) that the Borrower, in creating or permitting the creation of any such lien, will make express provisions to that effect (Section 4.07 [a], LA).	Throughout the Project	Complied with
10.	The provisions of paragraph (a) of this Section shall not apply to (i) any lien created on property, at the time of purchase thereof, solely as security for payment of the purchase price of such property; or (ii) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date (Section 4.07 [b], LA).	Throughout the Project	Complied with

Covenant	Due Date	Status
11. Executing Agency is responsible for monitoring, coordinating, and overseeing implementation of all project activities and for carrying out procurement, engaging consultants, supervising vessel construction and the construction of shore facilities and owning and operating the vessels provided (LA Sch. 6, para. 1).	Throughout the Project	Complied with
12. The Borrower shall sell to SSFCL the MA/LOFA at its fair market value. The proceeds of the sale are used for the purchase of shares of SSFCL in addition to the Borrower's initial investment in SSFCL equity (LA Sch. 6, para. 2).	Throughout the Project	Complied with
13. The Borrower shall be entitled to appoint at least two Directors to the Board of SSFCL representing Fisheries Department and the other representing Ministry of Finance as long as the Borrower holds any shares in SSFCL and SSFCL owes any monies from the Borrower (LA Sch. 6, para. 3).	Throughout the Project	Not complied with. Replacement yet to be in place
14. The Borrower shall promote private investment in SSFCL's share capital to transfer majority ownership to the private sector at the earliest possible time, and shares eventually being privately held. The Borrower shall in consultation with the Asian Development Bank take all steps necessary for and conducive to divesting its shareholding in SSFCL in favor of private sector shareholding (LA Sch. 6, para. 4).	Throughout the Project	Partly complied with. The Government shareholding has been reduced to 63 percent. The Borrower is pursuing disposal of its entire shareholding
15. The Borrower shall lease out to SSFCL part of the land at Faua as is needed for the construction of the office building and the other shore support facilities to be funded under the Project, and a reasonable rental rates (LA Sch. 6, para. 5).	Throughout the Project	Complied with
16. Establishment of Imprest Account and operation in accordance with guidelines satisfactory to the Asian Development Bank (LA Sch. 6, para. 6)	Throughout the Project	Complied with

FINANCIAL ANALYSIS

A. Base Case

1. The financial analysis has been conducted from the perspective of Sea Star Fishing Company Limited (SSFCL). The analysis examines the financial costs and benefits to SSFCL commencing in 1996 after the decision was made by the Board and the Government to proceed with the Asian Development Bank (ADB) loan. SSFCL had already purchased assets that had a written down value of T$2,176,538 at that time. These assets included four secondhand boats, buildings and equipment for fishing handling, vehicles, and office equipment. However, for the purposes of this analysis, these assets and the costs and benefits associated with them have been excluded, since they were not part of the Project.

2. The costs and returns from the fishing vessels purchased under the Project for the year 2000 and beyond are indicated in Table A3.1. The relevant costs and returns for the period prior to 2000 are those provided in the SSFCL accounts for these vessels. The assumptions under-pinning Table A3.1 were discussed and agreed with SSFCL. The fishing days, daily hookset, and catch per hook are based on actual performance in recent months. Fishing days figures have been adjusted for the time spent out of service for drydocking each second year. The composition of the catch is based on judgments made by management of SSFCL and is in line with recent performance. The value of catch is based on the recent sales performance, and all figures are net of the costs of packaging and freight to the market. The variable costs were derived from an analysis of the recent costs of SSFCL. The estimate of crew share was based on discussions with SSFCL management. The overhead costs include provision for drydocking and servicing of the vessels once every two years. The cost used in the financial analysis was the net profit per vessel prior to depreciation.

3. In addition to the costs and returns from the operation of the vessels, the overhead costs associated with the selling of the catch are indicated in Table A3.2. All costs were based on estimates provided by SSFCL. Since the prices used for sale of each class of fish in Table A3.1 were expressed net of packaging and freight, the figure used in the analysis was the total excluding freight and supplies.

4. The assumptions and results of the analysis of the base case are outlined in Table A3.3. It is assumed that SSFCL does not operate any vessels other than those provided under the Project. SSFCL continues to use a manager to operate its fleet and pays the manager a share of 20 percent of the net operating result for each vessel. In line with a decision by the Government, SSFCL and all other fishing (and agricultural) companies are exempted from income tax. The ADB loan has been valued by converting the US dollar values as provided in the ADB loan profile to pa'anga (T$) using an exchange rate of T$1.54 per US dollar, which was the average rate for the period when the assets were purchased. On this basis, the estimated total loan cost to SSFCL was T$3,833,078. Provision has been made for working capital (T$300,000), which has been returned at the end of the analysis period (2019). Debt service has been included only for the ADB loan based on the Subsidiary Loan Agreement (SLA) between the Government and SSFCL. Although the SLA provided for principal reduction payments to commence in 1998 after a grace period of five years, SSFCL reported that the Government had agreed that the principal reduction under the SLA would not commence prior to 2004. The analysis therefore provides for payment of interest only up to that date. The interest on the SLA is estimated at 6.36 percent as agreed with the Government. The analysis does not provide for depreciation payments, since it is assumed that the fishing vessel assets will be fully expended at the end of the project period with a life of 20 years. Provision is made for replacement of items of equipment and vehicles over the period of the analysis.

5. Under these assumptions the Project is unable to generate positive net earnings until 2014, after completion of the loan repayments under the SLA. As a result, using a discount rate of 5 percent, the Project would generate a negative net present value (NPV) of T$8.03 million were it to continue in this form. (In practice, the Project could not continue in this form since it would be unable to meet its obligations, and without new capital being injected it would soon cease operations).

B. Including Seaweed Venture

6. In addition to its fishing operations, SSFCL has diversified its business to include the culture of an edible form of seaweed known locally in Tonga as 'limu' and in Japan as SSFCL has sold some 9,090 shares to a Japanese company as part of a joint venture for the production and export of this seaweed. An estimated T$462,000 was invested in the business to establish facilities for cultivating, harvesting, cleaning, and drying the seaweed for export. (This is based on the US$300,000 that the Japanese partners have invested). This venture is highly profitable and generated a net revenue of T$143,419 for SSFCL in 1999; it is projected to generate in excess of T$550,000 per year for SSFCL starting in 2000. The analysis of costs and returns if SSFCL were to include the seaweed business showed that, with a discount rate of 5 percent, the Project would still generate a negative NPV of T$2.55 million with a financial internal rate of return (FIRR) estimated at –0.4 percent.

C. Including an Expanded Fleet

7. One of the reasons that the Project is projected to perform poorly is that it is unable to generate sufficient returns if its fleet remains small. If the fleet is expanded to six with four additional used vessels valued at T$500,000 each in 2001, if it is internally managed with no management fee payable, and if and the seaweed business is included, the NPV for the Project would increase to T$8.90 million and the FIRR to 15.7 percent. An analysis was made for the case in which this same set of assumptions is applied plus a change in income tax arrangements such that fishing companies are required to pay tax (15 percent for profits below T$100,000 and 30 percent above). This scenario indicates that the NPV for the Project would decrease to T$4.22 million and the FIRR to 10.6 percent. However, the NPV of the Government's income tax revenue would be T$4.69 million.

D. Financial Return to a Purchaser of SSFCL

8. An estimate for the financial return from the perspective of an investor purchasing SSFCL in 2001 was also made. It assumed that the investor purchased the entire operation of the company other than seaweed and that the terms of the purchase comprised a payment of T$20 per share (an up-front payment of T$2.0 million for all the shares, which would include a payment of T$600,000 to the Government for its 30,000 shares) and the taking over of all assets and liabilities of the company as at the end of 2000. The FIRR for the investor would be about 17 percent, which would be about the lowest level acceptable given the range of risks associated with an investment of this nature.

Table A3.1: Costs and Returns from Fishing Operations in Years 2000+

(T$)

Item		SS1	Tavake	Pakeina	Fleet Total
Fishing Days		184	184	184	
Daily Hookset		1,600	1,900	1,900	
Catch per Hook		0.40	0.45	0.45	
Catch per Year		117,760	157,320	157,320	432,400
A. Composition					
Albacore	40%	47,104	62,928	62,928	172,960
Fresh Export	35%	41,216	55,062	55,062	151,340
Local	25%	29,440	39,330	39,330	108,100
B. Value					
Albacore	3.22/kg	151,602	202,530	202,530	556,663
Fresh Export	10.57/kg	435,447	581,730	581,730	1,598,907
Local	2.50/kg	73,600	98,325	98,325	270,250
Total Revenue		**660,649**	**882,585**	**882,585**	**2,425,820**
C. Variable Costs					
Bait	0.47/kg	139,453	165,600	165,600	470,653
Fuel	0.78/liter	86,112	129,168	129,168	344,448
Maintenance		40,000	40,000	40,000	120,000
Rations	6.00/kg	6,624	6,624	6,624	19,872
Fishing Gear	0.08/kg	22,080	26,220	26,220	74,520
Packing		29,440			29,440
Total Costs		**323,709**	**367,612**	**367,612**	**1,058,933**
Cost per day		1,759	1,998	1,998	
Gross Income		336,940	514,973	514,973	1,366,887
Crew Share	40%	55,498.20	100,079.13	100,079.13	255,656
Vessel Operating Result		281,442	414,894	414,894	1,111,231
Management Fee	0%	0	0	0	0
					0
SSFCL Operating Profit		281,442	414,894	414,894	1,111,231
					0
D. Overhead Costs					0
Biannual Drydock		30,000	60,000	60,000	150,000
Insurance		16,000	44,000	44,000	104,000
Net Profit Before Depreciation		235,442	310,894	310,894	857,231
Depreciation		42,413	75,000	75,000	192,413
Net Profit		**193,029**	**235,894**	**235,894**	**664,818**

kg = kilogram

Table A3.2: Selling and Preparation Expenses

(T$)

Items	Amount
A. Supplies and Freight	
Packaging materials and Freight	837,667
Subtotal (A)	**837,667**
B. Staff	
Wages (shore facilities)	48,000
Salaries SSFCL	120,000
Subtotal (B)	**168,000**
C. Overheads	
Advertising	5,000
Cleaning	500
Electricity and Water	60,000
Insurance (not vessels)	20,000
Repairs and Maintenance (not vessels)	30,000
Storage (reefers)	0
Vehicle Expenses	12,000
Marketing	80,000
Subtotal (C)	**207,500**
Total Expenses	**1,213,167**
D. Add Depreciation	
Motor Vehicles	0
Plant and Equipment	70,000
Subtotal (D)	**70,000**
Total Selling and Preparation (A+B+C+D)	**1,283,167**
Total Excluding Freight and Supplies (B+C+D-A)	**445,500**

Table A3.3: Financial Return with Management Agreement
(T$)

Assumptions		*Result*	
Additional Vessels			
Management Fee	0	NPV	(8,028,813)
Tax rate above T$300,000	0		
ADB Loan	3,833,078		

Item	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Investments																		
Shore Facilities																		
- Civil works			359,427															
- Plant and Equipment			819,120															
Vessels			2,392,341															
Consulting Services	62,318	62,318	62,318	62,318														
Service Charge to ADB				12,917														
SSFCL Capital Inputs																		
- Working Capital																		
- Vehicles						40,000					40,000					40,000		
- Equipment						10,000					10,000					10,000		
- Vessels	300,000																	
- Buildings & Improvements																		
Total Investments	362,318	62,318	3,633,206	75,235		50,000					50,000					50,000		
Revenue																		
Net Profit from Additional Vessels																		
Net Profit from Tavake				(99,988)	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894		310,894	310,894	310,894	310,894
Net Profit from Pakeina			9,031	(146,150)	(100,000)	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894	310,894
Total Revenue from Vessels			9,031	(246,138)	210,894	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789
Revenue from Other Sources																		
- Seaweed																		
- Asset sales																		
Total Other Revenue																		
Total Revenue			9,031	(246,138)	210,894	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789	621,789
Costs																		
Selling Costs	207,500	207,500	207,500	207,500	207,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500	445,500		445,500
Management Fee				(49,228)	42,179	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358	124,358
Debt Service (ADB Loan)			243,784	243,784	243,784	243,784	243,784	243,784	529,711	529,711	529,711	529,711	529,711	529,711	529,711	529,711	529,711	529,711
Total Costs	207,500	207,500	451,284	402,056	493,463	813,641	813,641	813,641	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569	1,099,569
Net Earnings before Tax	(207,500)	(207,500)	(442,253)	(648,194)	(282,568)	(191,853)	(191,853)	(191,853)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)
Income Tax																		
Net Earnings after Tax	(207,500)	(207,500)	(442,253)	(648,194)	(282,568)	(191,853)	(191,853)	(191,853)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)	(477,780)
Net Project Benefits	(569,818)	(269,818)	(4,075,458)	(723,429)	(282,568)	(241,853)	(191,853)	(191,853)	(477,780)	(477,780)	(527,780)	(477,780)	(477,780)	(477,780)	(477,780)	(527,780)	(477,780)	(477,780)
Dividend per Share																		
Dividends to Government																		

ADB = Asian Development Bank, SSFCL = Sea Star Fishing Company Limited

PERFORMANCE OF THE SEA STAR FISHING COMPANY LIMITED

A. Performance of Fishing Fleet

1. Nonproject-Financed Vessels

1. The Sea Star Fishing Company Limited (SSFCL) commenced operations in June 1990 with one vessel, MFV Lofa that had previously been operated by the then Fisheries Department of the Ministry of Agriculture, Fisheries, and Forests. The MFV Lofa was a standard Japanese longliner of 34 meter length and 188 gross ton (t) weight, which had been used by Fisheries Department for research and training but was essentially a commercial fishing vessel. It had been landing reasonable catches since 1982, although not sufficient to cover its depreciation. In view of its performance and familiarity with this type of vessel, the board and management of SSFCL initially decided not to follow the project recommendations to expand the fleet with two new vessels, but rather decided to purchase secondhand vessels using its own resources. Starting in March 1992, SSFCL purchased four secondhand vessels (SS1, SS2, SS3, and SS4). Each of these vessels was purchased with the intention to expand the fleet with vessels similar to the MFV Lofa rather than the design specified in the Project.

2. The SS1 was purchased for its capacity to catch and preserve fresh fish rather than the albacore on which the Project had been based. However, this was a new style of fishing and neither the captain, crew, nor vessel were able to operate efficiently. The SS2 was a vessel designed for fresh fishing and was acquired in 1994. Difficulties were experienced in getting the vessel fully operational. The SS3 was a vessel designed for long periods at sea and with a freezer capacity to hold sashimi-grade tuna for months. The SS4 was another Japanese longliner purchased in 1995. Specifications of vessels are in Table A4.1.

Table A4.1: SSFCL Nonproject Vessels

Vessel	Year Built	Length (meters)	Gross Tonnage (t)	Hold Capacity (t)	Hold Temp.
MFV Lofa	1981	34	..	..	..
SS1	1980	15	20	20	Ice/ -20 C
SS2	1979	23	59	40	Ice/ -25 C
SS3	1980	27	70	80	-55 C
SS4	1982	29	117	80	- 55 C

3. SSFCL had attempted unsuccessfully to operate these secondhand vessels to catch and market fresh sashimi along with albacore over this period but found that the poor catch (Table A4.2) and high operating costs led to disappointing financial performance as indicated in Table A4.3. Despite the addition of the newly acquired vessels, the total catch declined and the catch per vessel collapsed from more than 300 t per year to around 120 t in 1998.

Table A4.2: Fish Catch by Sea Star Vessels

(t)

Year	Albacore	Yellowfin and Bigeye Tuna	Others	Total
1994	435	56	97	588
1995	366	60	68	494
1996	453	46	62	561
1997	480	87	83	650
1998 (4 vessels)	319	16	121	456
1999 (4 vessels)	148	33	62	243
2000 (2 vessels) projected in business plan	156	125	53	335

Table A4.3: Vessel Operating Result

(T$ ‘000, year ended in December)

Vessel	1992	1993	1994	1995	1996
MFV Lofa	249.56	205.40	79.15	60.77	76.50
SS1	(86.81)	(108.11)	43.31	(91.82)	(125.79)
SS2			35.17	(95.50)	(78.46)
SS3			48.58	3.30	(34.71)
SS4					(6.45)
Fleet Result	**162.75**	**97.29**	**206.21**	**(123.25)**	**(168.91)**

4. The MFV Lofa was the only vessel that was able to consistently generate an operating surplus[20] but its surplus was insufficient to cover the losses incurred on other vessels in the fleet. None of the vessels in the fleet were able to cover the overhead costs of management and depreciation.

5. The net profits from the fishing vessels continued to decline and by 1995 the SSFCL fleet had started to suffer losses. SSFCL was also operating shore facilities and incurring costs associated with management and the depreciation of its assets other than fishing vessels. These administration and shore support expenses continued to increase and SSFCL started to incur heavy losses. Its equity position continued to decline as indicated in Table A4.4.

[20] Calculated as the value of catch less vessel operating costs including share of preparation and selling costs; vessel operating costs; crew costs; overheads including insurance and maintenance; changes in inventory of fuel, bait, and fish on-board; and depreciation.

Table A4.4: SSFCL Overall Financial Performance

(T$ '000)

Year	Vessel Operation Result	Administration & Shore Expenses including Depreciation	Profit/Loss	Equity
1991	134.89	3.95	153.43	1,653.00
1992	249.30	27.66	272.51	1,896.00
1993	97.29	36.70	87.00	2,410.05
1994	206.21	117.02	84.54	2,494.61
1995	(123.24)	147.27	(287.05)	2,374.94
1996	(168.9)	271.44	(451.04)	1,923.94
1997	(274.76)	280.08	(641.72)	1,282.18
1998	(574.91)	339.33	(801.06)	484.40

2. Project-financed Vessels

6. In 1994 SSFCL and the Government decided to accept the Asian Development Bank (ADB) loan and to proceed with the procurement of additional new fishing vessels. A naval architect was recruited as a ship building consultant under the loan to assist in the procurement by developing specifications for the vessels and evaluating the bids. The consultant had previously been employed by the Government of Tonga to prepare a design for two 23.5-meter steel hull longliners suitable for the Tongan fishery. There was an expectation at the time of appraisal that the vessels would be constructed locally; hence the design was intended to accommodate the ship construction skills and experience available locally.

7. A marine surveyor was appointed under the loan in January 1997 to oversee the procurement of secondhand vessels under limited international purchasing. The tender documents were issued in March 1997, and in January 1998 SSFCL contracted for the supply of two vessels that were under construction, but no longer required by their owners. These vessels were built to the US Gulf shrimp boat design and were judged to be highly suitable for tuna fishing in Tongan waters (Table A4.5). They were equipped with modern Lindgreen-Pittman monofilament longline reels with a capacity for setting up to 2,500 hooks per hookset. Each boat is able to carry 45 t of tuna at –35 C along with 10 t of ice. They are powered by Caterpillar engines (3408B main engine and 3304 auxiliary engine) and have ice and fresh water makers. The cost of the two vessels including equipment, fishing gear, and delivery was US$1,553,468, which was less than 30 percent of the cost of the lowest responsive bid for a new vessel. The construction of the vessels was to have been completed by mid-1998, but delays associated with a dispute concerning mobilization payments among other matters resulted in the vessels being delivered in January and March 1999.

Table A4.5: Project-Financed Vessels

Vessel	Year built	Length (meters)	Hold Capacity (t)	Hold Temp.	Gear
SS5 Pakeina	1998	29	45	- 35 C	Monofilament
SS6 Tavake	1998	29	45	- 35 C	Monofilament

8. The first of the new vessels (SS5 Pakeina) commenced operation in Tonga in December 1998. The second vessel (SS6 Tavake) commenced operation in March. The initial results from the Pakeina were judged to be disappointing by SSFCL. In the period to May 1999 it brought in a catch averaging per day of fishing 0.56 t/day valued at T$1,663/day. This compared with the SS1, which averaged 0.47 t/day, but with a higher value of T$1,812/day because of a higher average value of the catch. Without seeking approval from ADB, SSFCL decided to re-locate the Pakeina to Australia in an effort to improve its profitability. (It is understood that similar plans were developed for the other new vessel, but they were dropped after ADB and the Government expressed their concerns). SSFCL established a subsidiary company in Australia (Sea Star Australia Pty Ltd.) and entered into a management contract to operate the vessel. In order to operate in Australia, the vessel was required to pay a license fee of A$18,000. The contract provided for the training of a Tongan crew, and this was the justification offered by SSFCL management for the re-location.

9. The charter company has performed poorly and has not provided details of the catch rate nor other details of vessel and crew performance. The accounts for the year ending December 1999 are summarized in Table A4.6. The vessel generated a net operating loss of A$47,941 prior to depreciation. This has placed a further drain on SSFCL cashflow and represents a poor management decision. Details of the performance of the charter company in the current year were not available, but SSFCL advised that the vessel was currently tied up and not fishing. The charter company were owed A$147,000 and were refusing to release the vessel until this amount was paid.

Table A4.6: Performance of Pakeina by Sea Star Australia Pty Ltd.

(year ended in December 1999, in A$)

Item	Amount
Total Income	607,018
Cost of Sales	514,590
Gross Profit	92,428
Expenses including Charter Fee	140,368
Net Operating Profit (before depreciation)	(47,941)

10. The second of the newly acquired vessels (Tavake) has operated in Tonga since its delivery in March 1999. It has been operated along with SS1 and SS4 by Maui Pacific Fisheries Limited (Maui Pacific)[21] under a management agreement dated 24 December 1999. This two-year agreement provides for the manager (Maui Pacific) to manage and operate the SSFCL fleet (Tavake, SS1, and SS4) and to provide working capital, a fleet manager, captains, engineers, and fishing crews along with onshore engineering services. In return for these services, SSFCL has undertaken to pay Maui Pacific a management fee consisting of 20 percent of the fleet operating result up to T$1.7 million per year and thereafter 30 percent of the fleet operating result. Maui Pacific has also provided its own vessel (Laumanu) and pays SSFCL a royalty of 20 percent of its operating result (or 30 percent if the result is above T$700,000). Under the management agreement, Maui Pacific is responsible for the marketing of all fish exported as fresh and SSFCL is responsible for all nonfresh export and local sales of the catch.

11. The Tavake has performed reasonably well since its arrival in Tonga as indicated in Table A4.7. The catch was 110 t in 1999 and a projected 148 t in 2000, which is lower than has been achieved in the past with other vessels. However, under the management of Maui Pacific there has been a dramatic increase in the proportion of the catch marketed as fresh export from 11 to 27 percent. In addition, again apparently as a result of the manager's better marketing approach, the average value of fresh export has increased more than threefold from T$3,413 per t in 1999 to T$14,465 in 2000. As a result, the average return per t has increased almost threefold.

Table A4.7: Performance of Tavake

Item	Actual 1999				Projected 2000			
	Volume (t)	Percentage (%)	Value (T$)	Price (T$/t)	Volume (t)	Percentage (%)	Value (T$)	Price (T$/t)
A. Fishing Trips	16				24			
B. Fishing Days	162				200			
C. Crew					7			
D. Catch								
1. Fresh Export	11.84	11	40,427	3,413	39.31	27	568,670	14,465
2. Local & Cannery	98.44	89	217,685	2,211	108.71	73	413,102	3,800
Total	**110.28**		**258,112**	**2,341**	**148.02**		**981,772**	**6,633**

12. Although the 1999 fish catch of the Tavake was reasonable, after deducting operating costs it generated an operating result of -T$8,754. After allowing for depreciation of T$91,233, the vessel generated a loss of T$99,989.

13. The marketing results achieved by the manager from the operation of the Tavake in the first six months of 2000 are indicated in Table A4.8. This indicates that there has been an improvement in the volume and value of fresh export catch. Maui Pacific has diversified the markets for sashimi-grade fish into Korea, Honolulu, and mainland United States.

[21] Maui Pacific Fisheries Limited is a firm registered in Tonga and owned by Tongan and overseas interests.

Table A. 4.8: Volume and Value of Catch in First Half of 2000

Sales	**Volume (kg)**	**Value (T$)**	**Price (T$/kg)**
Export to:	27 percent		
1. Republic of Korea	4,015	65,416	16.29
2. Japan	9,054	159,392	17.60
3. Republic of Korea/ Japan	1,008	9,433	9.36
4. United States	4,455	45,385	10.19
5. Honolulu	1,124	4,709	4.19
Fresh Export Total	**19,656**	**284,335**	**14.47**
Local	73 percent		
Local Sale Total	**54,354**	**206,551**	**3.80**

kg = kilogram