

PROJECT COMPLETION REPORT

ON THE

OUTER ISLANDS AGRICULTURAL DEVELOPMENT PROJECT
(Loan 1412-TON [SF])

IN THE

KINGDOM OF TONGA

December 2001

CURRENCY EQUIVALENTS

Currency Unit		-	pa'anga (T\$)
		At Appraisal	At Project Completion
		(15 November 1995)	(30 June 2001)
T\$1.00	=	0.8000	0.4649
\$1.00	=	T\$1.2500	T\$2.1510

ABBREVIATIONS

AR	-	appraisal report
BER	-	bid evaluation report
CPD	-	Central Planning Department
DP	-	direct purchase
EA	-	Executing Agency
EIRR	-	economic internal rate of return
FIRR	-	financial internal rate of return
ICB	-	international competitive bidding
IS	-	international shopping
MAF	-	Ministry of Agriculture and Forestry
MLCI	-	Ministry of Labour, Commerce and Industries
MOF	-	Ministry of Finance
MOW	-	Ministry of Works
NZODA	-	New Zealand Overseas Development Assistance
PAT	-	Ports Authority Tonga
PCR	-	project completion report
PSC	-	project steering committee
RRP	-	report and recommendation of the President
SPRM	-	South Pacific Regional Mission
TA	-	technical assistance
TCC	-	Tonga Communications Corporation
TTC	-	Tonga Telecommunications Commission

NOTES

- (i) The fiscal year (FY) of the Government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends. For example, FY2001 begins on July 2000 and ends on 30 June 2001.
- (ii) In this report, "\$" refers to US dollars and T\$ refers to Tongan pa'anga.

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BASIC DATA

A. Loan Identification

1.	Country	Kingdom of Tonga
2.	Loan Number	1412-TON (SF)
3.	Project Title	Outer Islands Agricultural Development
4.	Borrower	Kingdom of Tonga
5.	Executing Agency	Ministry of Finance
6.	Amount of Loan	SDR2.434 million (\$3.271 million)
7.	PCR Number	PCR:TON 665

B. Loan Data

1.	Appraisal		
	- Date Started	3 July 1995	
	- Date Completed	18 July 1995	
2.	Loan Negotiations		
	- Date Started	7 November 1995	
	- Date Completed	17 November 1995	
3.	Date of Board Approval	12 December 1995	
4.	Date of Loan Agreement	29 April 1996	
5.	Date of Loan Effectiveness		
	- In Loan Agreement	28 July 1996	
	- Actual	23 December 1996	
	- Number of Extensions	2	
6.	Closing Date		
	- In Loan Agreement	30 June 2001	
	- Actual	August 2001	
	- Number of Extensions	Nil	
7.	Terms of Loan		
	- Interest Rate	1 percent per annum	
	- Maturity (number of years)	40	
	- Grace Period (number of years)	10	
8.	Disbursements		
	a. Dates		
	Initial Disbursement	Final Disbursement	Time Interval
	10 November 1997	8 October 2001	3 Years 11 months
	Effective Date	Original Closing Date	Time Interval
	23 December 1996	30 June 2001	4 Years 6 months

b. Amount (\$ million)

Category	Original Allocation	Final Allocation ^a	Amount Cancelled	Net Amount Available	Amount Disbursed	Undisbursed Balance
Buildings	0.53	0.89	0.00	0.89	0.89	0.00
Roads	0.84	0.75	0.00	0.75	0.75	0.00
Vehicles	0.12	0.09	0.00	0.09	0.09	0.00
Equipment	0.08	0.00	0.00	0.00	0.00	0.00
Telecoms.	1.27	1.21	0.00	1.21	1.21	0.00
Consulting Services	0.19	0.25	0.00	0.25	0.25	0.00
Service Charge	0.12	0.08	0.00	0.08	0.08	0.00
Unallocated	0.49	0.00	0.00	0.00	0.00	0.00
Total	3.64	3.27^{a/}	0.00^{b/}	3.27	3.27	0.00

^a Reduced total due to currency loss.^b Savings of \$4,988 cancelled.**C. Project Data**

1. Project Cost (\$ million)

Item	Appraisal Estimate	Actual
Foreign Exchange Costs	2.85	3.27
Local Currency Costs	2.87	1.35
Total	5.72	4.62

2. Financing Plan (\$ million)

Item	Appraisal Estimate			Actual		
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
Implementation Costs						
Borrower-Financed		2.09	2.09		1.35	1.35
ADB-Financed	2.71	0.79	3.50	3.19	0.00	3.19
Subtotal	2.71	2.88	5.59	3.19	1.35	4.54
IDC Costs						
Borrower-Financed	0.00	0.00	0.00	0.00	0.00	0.00
ADB-Financed	0.13	0.00	0.13	0.08	0.00	0.08
Subtotal	0.13	0.00	0.13	0.08	0.00	0.08
Total	2.84	2.88	5.72	3.27	1.35	4.62

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

Item	Appraisal Estimate			Actual		
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
Civil Works	0.74	2.01	2.75	1.72	0.48	2.20
Vehicles	0.09	0.11	0.20	0.09	0.06	0.15
Equipment	0.08	0.17	0.25	0.00	0.10	0.10
Telecoms.	1.72	0.19	1.91	1.21	0.43	1.64
Consulting Services	0.22	0.26	0.48	0.25	0.16	0.40
O&M	0.00	0.13	0.13	0.00	0.12	0.12
Total	2.85	2.87	5.72	3.27	1.35	4.62

4. Project Schedule

Item	Appraisal Estimate	Actual
Project Implementation Consultant	March 1996	June 1998
Civil Works Contracts		
Construction of TTC building, Niuafu'ou		
Date of Award	January 1997	September 1997
Completion of Work	June 1997	January 1998
Construction of MAF building, 'Eua		
Date of Award	January 1997	August 1998
Completion of Work	December 1997	February 1999
Construction of MAF building, Niuafu'ou		
Date of Award	January 1997	March 1999
Completion of Work	December 1997	October 1999
Construction of MAF building, Niutopotapu		
Date of Award	December 1999	October 1999
Completion of Work	June 2000	April 2000
Construction of 'Eua roads		
Date of Award	January 1997	July 1997
Completion of Work	December 2000	June 2001
Construction of Niuafu'ou roads		
Date of Award	July 1999	November 1998
Completion of Work	September 1999	October 1999
Construction of Niutopotapu road		
Date of Award	August 1999	June 1999
Completion of Work	January 2000	December 1999
Supply, Delivery, and Installation of TTC Equipment		
Dates		
First Procurement	June 1996	December 1996
Last Procurement	June 1997	May 1997
Completion of Equipment Installation	June 1997	December 1997
Start of Operations		
Completion of Tests and Commissioning	July 1997	February 1998
Beginning of Startup	January 1998	February 1998

D. Data of ADB Missions

Name of Mission ¹	Date	No. of Persons	No. of Person-Days	Specialization of Members
Fact-Finding	21 March - 8 April 1995	3	48	b, d, e
Appraisal Mission	3-22 July 1995	4	68	a, d, e, g
Inception Mission	24 February – 7 March 1997	2	20	a, h
First Review	16-22 October 1997	2	14	a, h
Second Review	20-26 June 1998	1	7	h
Third Review	9-20 November 1998	1	11	h
Fourth Review	15-28 September 1999	2	20	h, i
Fifth Review	6-18 March 2000	2	28	e, h
Sixth Review	4-13 October 2000	1	9	h
Seventh Review	14-28 May 2001	2	28	f, h
PCR Mission	10-23 July 2001	2	37	e, h

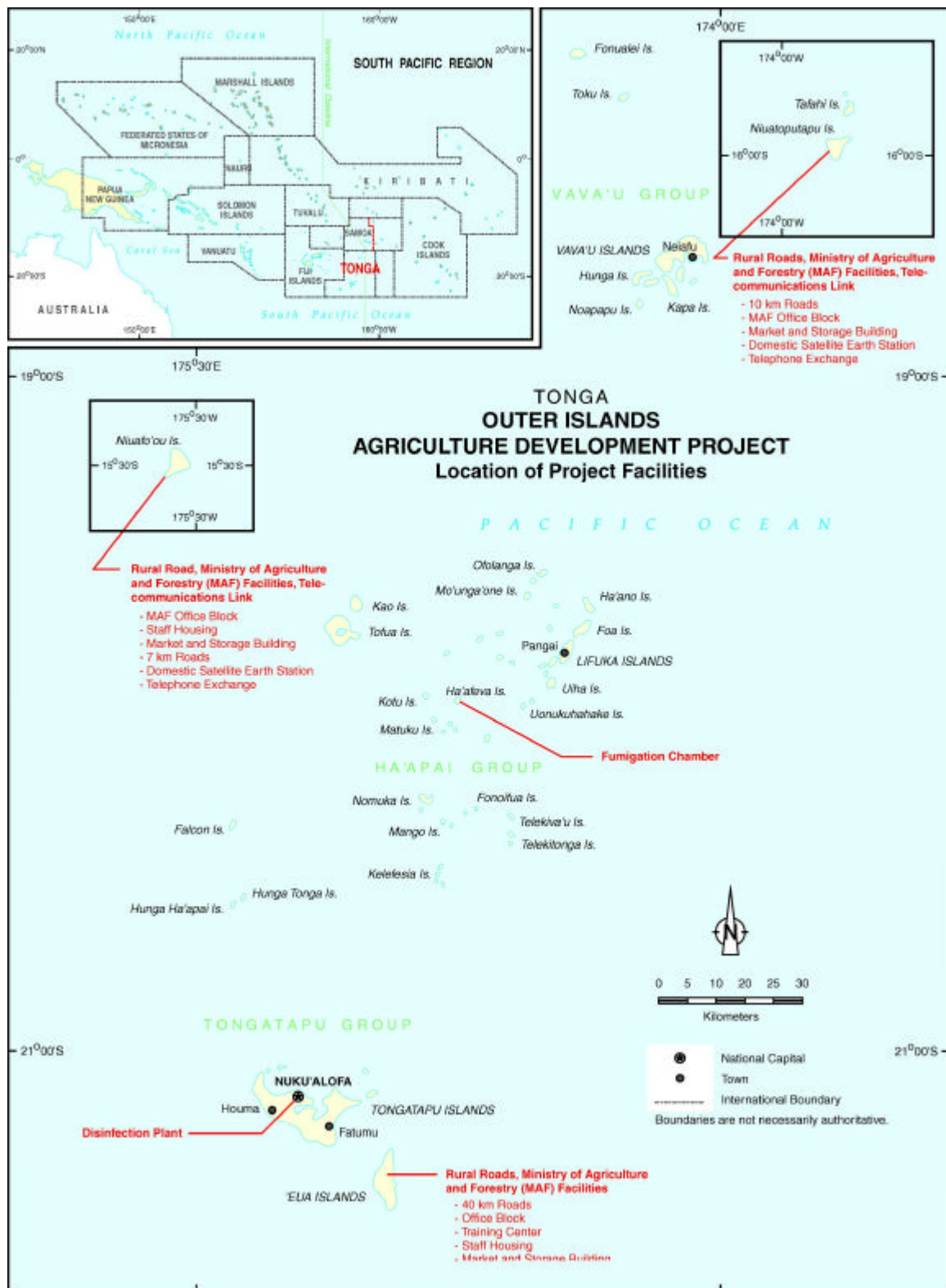
ADB = Asian Development Bank, IDC = Interest During Construction, O&M = Operations and Maintenance,

TTC = Tonga Telecommunications Commission,

MAF = Ministry of Agriculture and Forestry, PCR = Project Completion Report.

¹ a-engineer, b-financial analyst, c-counsel, d-economist, e-consultant specialist, f-control officer, g-programs officer, h-project officer, i-project assistant.

MAP



I. PROJECT DESCRIPTION

1. The Outer Islands Agricultural Development Project (the Project) was prepared to assist the Government of Tonga (the Government) in its efforts to achieve sustainable economic growth with a more equitable distribution of income, as set out in its Sixth Development Plan, 1991-1995. The Government had accorded high priority to the development of the agriculture sector and to development on the outer islands; the Project was designed to support these objectives. The islands selected for the project area were 'Eua, a small island close to the capital Nuku'alofa, and the islands of Niuatoputapu and Niuafo'ou (the Niuas) which are small, isolated islands at the extreme north of Tonga's territory.

2. In response to the Government's request, the Asian Development Bank (ADB) approved a technical assistance¹ (TA) to prepare a project to meet these objectives, and this was completed in January 1995. Subsequently, the Government and ADB agreed that the objectives of the Project would be to: (i) increase agricultural productivity and farm incomes on the outer islands, (ii) reduce the income disparities between households of the different island groups, and (iii) stimulate agricultural exports. These objectives were to be achieved by: (i) improving agricultural extension services, (ii) increasing and sustaining agricultural production systems on the Niuas and 'Eua, (iii) providing market support, and (iv) providing infrastructure.

3. The Project as appraised comprised four components: (i) capacity strengthening in the Ministry of Agriculture and Forestry (MAF) to provide extension services to the outer islands; (ii) farming systems improvement through research and development with the aim of increasing productivity and sustainability; (iii) market support and development through marketing facilities and services; and (iv) infrastructure improvements including the construction of agricultural roads, telecommunications on the Niuas, tanks and piping for domestic water supplies, and quarantine facilities. As part of the Government contribution, \$220,000 was to be allocated to fund small, community-initiated infrastructure projects on the islands to facilitate commercial initiatives.

4. The Project was appraised in July 1995 and the loan was negotiated in November 1995. ADB, on 12 December 1995, approved a loan of \$3.6 million equivalent for the Project and a further \$1.45 million for two attached TA grants comprising \$600,000 to support the strengthening of MAF² and \$850,000 to develop the capacity of Tonga Trade (the national export promotion body) to play its role in market support and development.³ A brief history of the Project is presented in Appendix 1.

II. EVALUATION OF IMPLEMENTATION

A. Project Components

5. Commencement was delayed due to the late signing of the Loan Agreement and delayed loan effectiveness. Once implementation began, it proceeded largely as planned. The late start has been largely compensated for by faster than planned progress once activities started.

¹ TA 1970-TON: *Agriculture Development Project*, for \$430,000, approved on 26 October 1993.

² TA 2467-TON: *Capacity Strengthening of MAF*, for \$600,000, approved on 12 December 1995.

³ TA 2468-TON: *Institutional Strengthening of Tonga Trade*, for \$850,000, approved on 12 December 1995.

1. Ministry of Agriculture and Forestry Capacity Strengthening

6. This component was to strengthen the agricultural extension services on the outer islands and provide supporting research and trials work. The MAF programs were to place added emphasis on baseline socioeconomic surveys, on research and development into new crops, on marketing and quality improvement, and on improvements in farm management.

7. This component was implemented without significant modifications to the appraisal proposals. The Project improved the MAF facilities on 'Eua and the Niuas by constructing new offices, renovating existing office space, and by providing housing, training facilities, and transport for staff. Building construction was delayed due to difficulties that the Government experienced in securing counterpart funds and to physical difficulties in transporting materials to the Niuas. The facilities on 'Eua were completed in February 1999, those on Niuafo'ou in October 1999, and those on Niatoputapu in April 2000. The buildings are of good quality and are being used effectively. A 2-ton truck, a 4x4 pick-up truck, and a motorbike were supplied to 'Eua; a truck and a motorbike to Niuafo'ou; and a 4x4 pick-up truck, a motorbike, and a boat to Niatoputapu, all during 1998. Office furniture, including computers, was also supplied. Despite the delays in construction, since additional qualified staff were posted to these locations, in some cases before the facilities were finished, MAF's capacity was strengthened through the Project. The training facilities have also been effectively used.

8. Following earlier ADB assistance to MAF,⁴ MAF was to be restructured, with this requirement the subject of a loan covenant (para. 31). The restructuring of MAF was closely linked to TA 2467-TON: *Capacity Strengthening of the Ministry of Agriculture and Forestry*, which was attached to the loan (paras. 38-40). The restructuring of MAF became a major task of the TA but it has proved more difficult and time consuming than anticipated and the covenanted time limits for the restructuring were not met. Eventually, the Research-Extension Division was established in December 1998 and the Corporate Services Division in January 2000. The Research-Extension Division is the division of MAF most important to the achievement of the Project and this was the first to be restructured. This division is now the largest division in MAF, consisting of four functional units: Research Unit, Information Unit, Administration Unit, and the Extension Unit. Since its establishment, the Research-Extension Division has managed to operate properly with its increased functional responsibilities, despite resources constraints in many areas of operation, and the fact that staff had to adjust to the new structure. Although delayed, the MAF restructuring is now substantially complete. It was achieved without any increase in budget requirements, and MAF is now fully staffed and its effectiveness has been increased. As a result, the MAF structure is likely to be sustainable.

2. Farming Systems Improvement

9. This component aimed to improve the standard of living of rural households through the application of research and development into more productive and sustainable agricultural production systems for 'Eua and the Niuas. Appropriate research and development was to be funded on the target islands and the safe use of agrochemicals was to be promoted. On-farm, rather than basic, research was to be emphasized to assess and demonstrate the performance, under commercial conditions, of different practices and cultivars. Given the differences in climatic and ecological conditions between the Niuas and the center where basic research is

⁴ TA 1712-TON: *Review of Operations of the Ministry of Agriculture and Forestry*, for \$75,000, approved on 5 June 1992.

conducted on Tongatapu, testing and verification of results from Tongatapu was to be an important part of the program.

10. The component was implemented largely as planned at appraisal apart from delays in provision of the project implementation consulting services. Eleven months of international consulting services were provided to support the implementation of this component. The services covered the specializations of post-harvest technology (three person-months), training and extension (three person-months), handicraft design (two person-months) and marketing and small business (three person-months). In addition, three person-months of local consulting services were to be provided to promote the safe use of agricultural chemicals. The roles of the consultants were to prepare training materials, help MAF staff prepare training and extension programs, train extension staff, and to undertake training programs in village communities. During implementation, training in the safe use of agrochemicals was changed to training in integrated pest management. This has achieved the same objective and provided the opportunity for farmers in the Niuas to seek accreditation from MAF as organic suppliers. Under the Project, nurseries and on-farm trials were established on the islands to facilitate the introduction of new plants and techniques. A crop utilization unit has been established at headquarters of MAF at Tongatapu to promote value-adding activities and agribusiness.

11. It was envisaged at appraisal that the implementation consultants would be fielded immediately after loan effectiveness, but they were not fielded until June 1998 owing to MAF's unfamiliarity with ADB's recruitment procedures. Their services were delivered in split inputs with completion in February 1999. The delay in fielding them may have been beneficial since there had also been delays in restructuring MAF, so the input coincided with the formation of the new Research-Extension Division (which would be responsible for implementing the consultants' recommendations). The restructuring of MAF was more a function of the TA consultants than the implementation consultants, so the delay in their recruitment did not delay the restructuring. The input of the implementation consultants was effective and was put to use by the extension service throughout Tonga, including the outer islands.

3. Market Support and Development

12. This component was intended to improve marketing facilities and services by constructing buildings on 'Eua and the Niuas that would serve as local markets, provide storage for goods being shipped, and house processing operations. In addition, the Project sought to improve the flow of market information and provide training from other components of the Project and the associated TA 2468-TON: *Institutional Strengthening of Tonga Trade*.

13. The component was implemented as planned except that, as with the other MAF buildings, construction was delayed until February 1999 for 'Eua, October 1999 for and April 2000 for Niuatoputapu. The quality of construction was good and the 'Eua building has already survived a cyclone with damage only to surrounding fencing. Although public local markets has been operating at all centers, these were not sustained. Patronage was low due to competition from privately run markets and resistance to cost recovery charges. The buildings are now rented out for other purposes related to project objectives, for example, pre-export storage of squash on 'Eua, and as working and storage areas for production of handicrafts on the Niuas. Planning of this component appears to have suffered from lack of attention to the design, location, and management of the facilities as well as attempts to have facilities that also served other purposes. The privately run markets are smaller, less expensive in rent, and located in residential areas. Financial returns from the other uses of market facilities are likely to be negligible in relation to the capital costs of the buildings.

14. Initially, there was little improvement in the flow of export market information owing to the failure of Tonga Trade and MAF to develop cooperative information-sharing arrangements for much of the implementation period. Market prices are now regularly disseminated via print and electronic media and commodity reference material is more readily available. The rapid and rational response of farmers to changes in market conditions during implementation indicates that access to market information is now adequate. However, in hindsight it appears that lack of market information in itself was not such a serious constraint as envisaged at appraisal. This situation has since improved and, as a result of the restructuring of MAF and training, the MAF field extension service and headquarters now accept marketing as an important, mainstream function.

4. Infrastructure

15. The Project was to finance the construction of 57 kilometers of new farm and farm-to-market roads for vehicles, telecommunications on the Niuas, domestic water supplies, quarantine and pre-export disinfection facilities, and the establishment of community funds to meet the costs of small investments to support small entrepreneurial ventures.

a. Roads

16. The road construction activities under the Project were delayed; in some cases they fell short of target both in terms of quality and length of route constructed. Nonetheless, the roads have contributed to increased vehicle registration and use. On 'Eua, construction of roads did not start until September 1998 after the Ministry of Works (MOW) had completed the construction of an earlier road project there. The Project provided for 40 kilometers of roads on 'Eua, but at the time of the project completion report (PCR), only 32 kilometers had been built. MOW has undertaken to complete the remaining section. The 'Eua road program has been a source of concern in terms of the rate of progress, as well as the standards of construction and of financial and physical reporting. The poor standard of capital equipment available to MOW contributed to slow progress. At project completion, the condition of some sections of the roads in 'Eua needed further improvement, in particular roadside drainage and centerline vegetation as a result of inadequate pavement material. However, the roads are acceptable for agricultural access. The Government has undertaken to address these issues under its routine maintenance program.

17. The construction of roads on the Niuas was delayed owing to the difficulty in getting construction plant shipped there. Work began on road construction on Niuafo'ou in November 1998 in conjunction with a project funded by New Zealand Government and the roads were completed in October 1999. Quality was affected by the poor characteristics of the volcanic-based fill material used. Roads on Niuatoputapu were completed in December 1999. Overall, the standard of construction is satisfactory; the number of vehicles on the Niuas has rapidly increased since the roads were built.

b. Telecommunications

18. Under the Project, the existing community radiotelephone services on the Niuas were to be replaced by private telephone services using a domestic satellite earth station. The component was implemented largely as planned. The installations were completed and commissioned in December 1997. Installation was assisted by linking some of the procurement in projects being undertaken elsewhere in Tonga by the Tonga Telecommunications

Commission (TTC). There are 128 subscribers on Niuatoputapu and 74 on Niuafu'ou. The facilities have been in use since then with minimal downtime. Minor difficulties arose from the fact that lines were installed on Niuafu'ou before the roads had been surveyed and some poles had to be moved.

19. Usage in terms of calls originating in the Niua has been more than forecast and they have been used for commercial as well as personal calls. The availability of high-quality telephone services facilitated the implementation of this Project. The work was completed under budget and, with the savings, TTC installed a community radio telephone and fax on the island of Tafahi near Niuatoputapu, improved its office facilities, and extended the telecommunications service. This element of the Project has been efficiently and effectively implemented.

c. Water Supplies

20. As proposed at appraisal, 60 tank and piping water supply systems were installed with work completed in February 1998. The Government sought funds from the New Zealand Overseas Development Assistance (NZODA) for installation, which was to be government funded under the Project. NZODA provided the funds under its Rural Development Program for the Niua at an estimated amount of \$271,474.

d. Community Funds

21. This element of the component was not implemented as planned but was judged to have achieved part of its intended purpose. Under the Project, community funds totaling about \$220,000 were to be established on the three islands ('Eua and the two Niua) as part of the government counterpart contribution. However, the Government had difficulty sourcing funds so, in early 1998, NZODA agreed, with the concurrence of ADB and the Government, to set up funds for the Niua at T\$25,000 per island. The administration of the funds is coordinated by the Central Planning Department, of the Government of Tonga, which is in conformity with NZODA requirements but is contrary to the arrangements specified in the report and recommendation of the President (RRP). At appraisal, it was envisaged that there would be a stronger role for island development committees and MAF in community projects. The arrangements do not reflect the recommendations of the rural sociologist provided under TA 2467-TON, which suggested that there should be revolving funds, with repayment arrangements determined by the respective communities. However, the mission had found the funds have been effectively used. Overall, the funding has fallen about 80 percent short of requirements, with none at all for 'Eua. Several projects involved the fencing off of garden areas to prevent damage by pigs and the development of kava plantations in new areas. This component was not closely researched during project preparation and, even if full funding had been available, it is unknown whether the target communities could have completely and effectively used the funds. The funds are not central to the purpose of the project and the shortfall has not seriously affected the achievement of project benefits.

e. Quarantine and Disinfection Equipment

22. This part of the component was implemented as planned. There were delays in landing incinerators on the Niua due to the poor wharf facilities and rough seas. Incinerators were required so that MAF could destroy suspect material and assist in the preservation of the favorable pest and disease status of the Niua. All the equipment has been installed using Government funds as planned. The equipment is currently in working order and is being used.

B. Implementation Arrangements

23. There were no major changes in the implementation arrangements for the Project to those proposed at appraisal. The RRP indicated that the Ministry of Finance (MOF) was to be the Executing Agency with MAF, MOW, and TTC the implementing agencies for their respective components. The Deputy Secretary for Finance was appointed Project Director and MOF was to be responsible for project reporting and administrative links with ADB. MAF was to appoint a Project Manager and establish a project office responsible to the Director of MAF. MOW and TTC were also to appoint project managers. A project steering committee convened by MOF and meeting every two months was also to be established. These arrangements were a condition for loan effectiveness, and were implemented and maintained throughout implementation.

24. The project steering committee comprised representatives of MAF, MOW, Ministry of Labour, Commerce and Industries (MLCI), Prime Minister's Department, Tonga Development Bank (TDB), TTC, Ministry of Foreign Affairs, the permanent island representatives of the three islands, and the Central Planning Department. Government representatives of the three islands have expressed appreciation of the role of the project steering committee in keeping stakeholders informed of developments and resolving problems concerning the Project. The appointed project managers were senior officers in their respective organizations with enough authority to perform their roles effectively. The presence of the capacity-strengthening TA team in MAF helped project management, especially in the early stages. Although specified implementation arrangements were adhered to, there were several instances of late submission of reports.

C. Project Costs and Financing

25. The total cost of the Project was estimated at \$5.7 million at appraisal of which \$2.8 million or 49 percent was foreign exchange. These estimates included provisions for price escalation, physical contingencies, and the service charge during implementation. Of the base cost of \$5 million, \$3.4 million (68 percent) was for infrastructure; \$0.7 million (14 percent) for MAF capacity strengthening; \$0.5 million (10 percent) for market support and development; and \$0.4 million (8 percent) for farming system improvement. The actual project cost was approximately \$4.62 million as shown in Appendix 2.

D. Project Schedule

26. The Project was to be implemented over a period of five years starting in March 1996 and finishing in August 2001. Preparatory works were to start early in 1996 with physical work beginning in early 1997. Roadworks were scheduled to coincide with the small ports component of the Transport Infrastructure Project⁵ to take advantage of the availability of equipment and construction crews on the islands. The telecommunications system was to be completed by mid-1997. All TA teams were to be fielded from the start of 1996 and the farming systems component was to be operational from the beginning of 1997.

27. The start of the Project was delayed by the late signing of the loan on 29 April 1996 and effectiveness on 23 December 1996. Installation of telecommunications equipment began in early 1997 and the system was operational by the end of 1997, which was an excellent recovery after the delayed start. The Tonga Trade TA started in January 1997, but the consultant inputs

⁵ Loan 1303-TON (SF): *Transport Infrastructure Project*, for \$10.0 million, approved on 28 June 1994.

did not finish until June 2000 and the other inputs were not fully used at the time of completion. The MAF TA team was not fielded until July 1997 and was extended until 2000. The project implementation consultants' services began in June 1998 and were completed in February 1999. The restructuring of MAF was delayed but was substantially completed at the time of the PCR.

28. Road construction on 'Eua began in January 1998 and was substantially completed at the time of the PCR. Roads on the Niuaus were completed in late 1999. Buildings on 'Eua were finished in February 1999, those on Niuafo'ou in October 1999, and those on Niuatoputapu in April 2000. All construction work on the Niuaus was affected by the difficulty in, and high cost of, shipping equipment to them. It was anticipated at appraisal that work could be combined with that of the Transport Infrastructure Project (Loan 1303-TON) and use equipment on site for that project; however, the delay in effectiveness made this impossible. The physical components were completed in December 2000 as originally envisaged at appraisal. Appendix 3 compares the project schedule envisaged at appraisal with actual implementation.

E. Engagement of Consultants and Procurement of Goods and Services

29. The recruitment and use of consultants under the Project was in accordance with ADB's *Guidelines on the Use of Consultants*. All civil works and equipment were procured in accordance with ADB's *Guidelines for Procurement*. With the approval of ADB, the procurement of telecommunications equipment was carried out by TTC following international competitive bidding procedures, in conjunction with procurement of similar equipment required for a major telecommunications upgrade of the interisland links in Tonga. Buildings were designed by MOW and contracts for construction were awarded on the basis of local competitive bidding procedures. All buildings on each island were grouped for the purpose of tendering. Roads on Niuatoputapu were constructed by a private contractor following direct purchase procedures, but all other roads were built under force account by MOW. Given the constraints in interisland shipping and MOW's construction gang schedule for the outer islands, it was convenient to hire a private contractor, currently working on the island at the time, to carry out the road construction. However, road construction by force account in the case of Tonga is considered more cost effective and efficient than any other procurement arrangement as proved by the implementation of the roads component under the Transport Infrastructure Project (Loan 1303-TON). Vehicles and office equipment were procured by international shopping or direct local purchase. Procurement details are shown in Appendix 4.

F. Performance of Consultants, Contractors, and Suppliers

30. All consultants employed under the Project performed satisfactorily. The MAF implementation consultancy was effective in introducing the desired changes to the Ministry. The MAF Institutional Strengthening TA required some reorientation and an extension of time but was effectively implemented. The performance of the Tonga Trade TA consultants was satisfactory but its long-term effectiveness was reduced by a shortage of full time counterpart staff. The implementation period was extended in recognition of staff constraints. MOW design and tendering for civil works was satisfactory and building contractors performed well, as did the one private road contractor on the outer islands. MOW road construction was satisfactory but was hampered by the unreliability of some equipment, in particular compaction equipment, which resulted in poor compaction of some sections of the roads. Suppliers of telecommunications equipment performed satisfactorily.

G. Conditions and Covenants

31. Most of the 13 major loan covenants have been complied with (Appendix5). The reorganization of MAF did not occur within the time frame specified, but is now almost complete. Covenants relating to the staffing and independence of Tonga Trade have not been met, nor has the requirement for private sector funding of 50 percent of the costs of Tonga Trade. The latter covenant is now generally acknowledged to be unrealistic. The RRP gives no indication that the potential impact of this covenant was adequately researched either in terms of the capacity of the export sector to contribute to the costs of Tonga Trade or what was an appropriate size for Tonga Trade in relation to anticipated benefits. Changes to the agreed arrangements for managing the community funds; less than required funding for the Niuas; and failure to establish a fund for 'Eua resulted in partial compliance with that covenant. The project steering committee was established as required and has been effective. While specific plans have not been developed, the Government has given assurances that adequate provision has been made for the maintenance of project facilities.

H. Disbursements

32. An imprest account was established for reimbursement of smaller local expenditure. Some of the implementing agencies were initially unable to make effective use of this facility but, with assistance from ADB supervision missions, subsequently it was effectively used. Direct payments were used to settle bigger contracts and roadworks carried out under force account were paid on the basis of statements of expenditure. Over half the proceeds were disbursed in the first two years of the Project, largely due to the speedy execution of the telecommunications component. Disbursements over the final three years of the Project ranged between 14 and 20 percent of proceeds per year. A comparison of appraisal estimates and actual disbursements is shown in Appendix6.

I. Environmental and Social Impacts

33. Any adverse environmental impacts have been minimal. Project roads have resulted in additional runoff, but the consequences will not be serious, provided that maintenance is adequate. The Project was not designed to encourage big increases in areas under cultivation and in any case, with the exception of the squash industry, most cropping does not involve a major disturbance of the soil. Use of chemical herbicides, pesticides, and fertilizers is limited in Tongan agriculture and the Project introduced integrated pest management. This has succeeded to the extent that the Niuas are moving toward accreditation by MAF as organic suppliers.

34. The social impact of the Project on the Niuas has been striking. People can now communicate easily with the rest of the world via the telecommunications system. The availability of roads and vehicles has enriched their social lives and increased the efficiency of their agriculture. This has come at the price of a much increased requirement for cash income which is causing some difficulty, especially on Niuafo'ou. The cash-flow difficulties were exacerbated by the fact that the telecommunications facilities were installed early in the Project, leading to an early increase in cash requirements, while the roads and improved agricultural services designed to increase incomes were delayed. Moreover, kava, the main cash crop, takes four years to mature. On Niuatopotapu, it appears that the traditional culture of handicraft production will be strengthened, as the commercialization of this activity appears to be the main source of increased cash incomes.

J. Performance of the Borrower and the Executing Agency

35. Given the difficulties associated with any project seeking to assist the development of the outer islands, the performances of the Borrower and the Ministry of Finance as Executing Agency were generally satisfactory, apart from implementation delays and some shortfalls in counterpart funding. There was a long delay in loan effectiveness and, apart from the telecommunications component that was implemented rapidly, various other components were delayed by the inability of Government to mobilize funds for its counterpart contribution. Recruitment of technical assistance specialists for MAF was delayed and execution of the components concerned with institutional strengthening was slower than expected. The deployment of equipment for road construction by MOW was delayed, resulting in delays in this component. Mobilization of road construction plant and equipment to the Niua and 'Eua was difficult.

K. Performance of the Asian Development Bank

36. The performance of ADB was generally satisfactory, particularly when one considers the challenges associated with designing and supporting outer island projects of this type. The design of the Project was a protracted process but the time lapse itself contributed to substantial and beneficial revision, including a reduction in the number of components. The components could have been reduced further by combining the strengthening of MAF and the farming systems improvement components, since their inputs and outputs are difficult to distinguish from each other.

37. ADB supervised the Project regularly, with an officer from its South Pacific Regional Mission (SPRM), Port Vila, Vanuatu undertaking all review missions; this provided good continuity. Issues were correctly identified and brought to the attention of the Government. SPRM provided help to the Government in meeting ADB requirements and ADB showed flexibility in regard to revision of the TAs, reallocation of proceeds to accommodate financial constraints of the Government, and procurement of telecommunications equipment. Inflexibility from ADB on these matters could have resulted in failure to complete the components.

III. TECHNICAL ASSISTANCE

1. TA 2467-TON: Capacity Strengthening of the Ministry of Agriculture and Forestry

38. Following an ADB-financed review of the operations of MAF,⁶ ADB approved TA 2467-TON for \$600,000 to strengthen the capacity of MAF to manage market-oriented development projects. The resources provided under the TA included consulting services, equipment, and operating costs. Details are provided in Appendix 7.

39. At appraisal, it was envisaged that MAF would be restructured prior to the start of the TA. However, at the start of the TA, the inception report noted that the strategic plan for MAF had not been adopted and MAF had not been restructured as expected when the TA terms of reference were prepared. The time required for institutional change in the Tonga public service was underestimated and, as a result, benefits arising from the strengthening of MAF have been delayed by several years. Changes to the scope of the TA to accommodate this situation were

⁶ TA 1712-TON: *Review of Operations of the Ministry of Agriculture and Forestry*, for \$75,000, approved on 5 June 1992

agreed following a tripartite meeting held in October 1997. As a result, assisting with the restructuring of MAF became the major activity of the TA. The main consultant inputs were completed in July 2000 while the institutional development specialist provided short-term inputs until June 2000.

40. The consulting services were satisfactory and accepted by the Government and ADB. As a result of the TA and appointment of qualified staff, the restructuring is almost complete, the use of computers is now widespread throughout the Ministry, and data management is much improved. The distribution of information is more attuned to the needs of clients and field staff, and uses modern technology. A benefit monitoring system has been developed, though, at the time of project completion, it had not been used due to incomplete data entry. MAF has adopted program budgeting. The restructuring of the Research-Extension Division has improved linkages between farmers and extension workers and between extension workers and specialist support staff. The incorporation of finance, administration, budgeting, planning, and information functions within the new Corporate Services Division has improved the coordination of support services. A general feature of the restructuring has been the recruitment of more highly qualified staff, funded by savings arising from reductions in the number of unqualified support staff.

2. TA 2468-TON: Institutional Strengthening of Tonga Trade

41. Tonga Trade had been established to take responsibility for export marketing at the national level. Its roles covered market development, as well as trade information, policy, and promotion. ADB approved TA 2468-TON for \$850,000 to establish Tonga Trade as an agency independent of the Government. The TA was to cover the costs of expert assistance, office equipment, vehicles, and operating costs. It was required that Tonga Trade would be operationally independent of the Government and that private sector funding for its operations would reach at least 50 percent by the beginning of the third year of its operations. Further details on the TA are provided in Appendix 8.

42. Tonga Trade was formally inaugurated on 17 January 1997, and the consulting services element of the TA was completed in July 2000 to the satisfaction of the Government and ADB. During the course of the TA, much was achieved in marketing studies, trade promotion, and the formation of industry councils and associations. However, the effectiveness of the TA was affected by unavailability of counterpart staff, shortage of local funding, poor cooperation with other agencies, and difficulty in meeting the private sector funding covenant. At completion, core senior staff had been appointed on a permanent basis, government funding had been increased, and specific plans had been made to generate funding from the private sector.

43. Compliance with the major private sector funding covenant was not achieved. This covenant was inflexibly expressed, may not have taken adequate account of the limited capacity of the export sector to provide funds, and entailed the risk of forcing Tonga Trade to impose de facto taxes on exports, which would have been counterproductive to the purposes of the TA. The legal status and role of Tonga Trade have been subject to frequent changes of policy during implementation and remained unresolved at completion.

IV. EVALUATION OF INITIAL PERFORMANCE AND BENEFITS

A. Financial Performance

1. Telecommunications

44. This component was implemented at less than the cost estimated at appraisal. Income from subscribers to the Niuas telephone system to Tonga Telecommunications Commission (TTC), now Tonga Communications Corporation (TCC), exceeds the amount estimated at appraisal. However, operating costs are relatively high and the Niufo'ou operation in particular is financially marginal. Income is also generated from overseas calls to the Niuas, but it was not possible to separate this from other revenues from incoming calls and estimates used in the appraisal analysis were used to assess the overall financial impact on TCC. The FIRR of this component has been reestimated at 8.2 percent compared with 4 to 5 percent at appraisal. The improvement arises from the lower construction cost and higher than estimated usage. Details of returns and costs are presented in Appendix 9.

45. The proceeds of the loan related to the telecommunications component were lent to TTC on terms in line with those specified in the RRP. However, the subloan was denominated in SDR and the 33 percent depreciation of the pa'anga in SDR terms between the time of drawdown and the time of completion has resulted in an unintended increase in the debt servicing cost to TCC and the effective rate of interest in pa'anga. The component will have a negative impact on the cash flow of TCC until the loan is repaid, and the denomination of the loan has exacerbated this. TTC bears the foreign exchange risk and at the time of completion, movements in the exchange rate had resulted in an increase in the effective rate of interest in pa'anga from 6.8 percent to 12.3 percent.

46. Charges for telephones averaged T\$893 on Niuatoputapu and T\$741 on Niufo'ou per subscriber per year over the past two years. This is a high proportion of disposable cash income. Arrears, although stable, amount to almost one year's charges on Niufo'ou and about four months on Niuatoputapu. TCC pursues arrears and has achieved almost full payment of current accounts and reduction in amounts outstanding, especially on Niuatoputapu. Charges are sufficient to cover management and operating costs, but not the full cost of debt servicing under the subsidiary loan. Hence, although the component has been implemented quickly and efficiently, and well received by the beneficiaries, it is a cash drain on both its customers and the business supplying the service.

2. Crop Production Incomes

47. At appraisal, it was expected that the Project would increase incomes by encouraging increased cultivation and introduction of technology to increase yields. The expected increase in cropping intensity and acreage cultivated was a relatively modest 14 percent on 'Eua and 50 percent, but from a low base, on the Niuas. Yield increases were also expected to be modest. At project completion, MAF crop production survey data indicated that incomes of the target population had already increased beyond that anticipated at appraisal for year 20.

48. The Project is not yet mature and the full impact will not be observable for some years. However, some changes from the position forecast at appraisal have already occurred, mainly in the areas and production of different crops in response to changed price, transport, and marketing conditions. Since the farming systems component has only been in progress for a short time, it is unlikely that there has been time for new, yield-increasing technology to be

developed and adopted by farmers. The main changes since appraisal which will affect project benefits are (i) the unexpected expansion of squash pumpkin (main cash crop in the niche market) on 'Eua; (ii) low vanilla prices in 1998 and 1999, which led to decreased vanilla production, maintenance, and planting, although record high prices in 2000 stimulated rehabilitation and production activity on 'Eua but not on the Niua; (iii) delays in establishing a shipping service from the Niua to Samoa which prevents farmers from marketing perishable produce effectively; (iv) kava prices have been higher than anticipated and planting has increased beyond appraisal estimates; (v) the trade fairs organized by Tonga Trade have helped boost demand for handicrafts resulting in expanding production of handicrafts on all islands; and (vi) the sale of firewood and planting material has become a significant industry for farmers on 'Eua but this was not included in project analysis.

49. The estimates of the likely additional income of households on the three islands have been revised to recognize these changes. The increase over the appraisal estimate was 18 percent for Niuatoputapu, 41 percent for 'Eua, and 55 percent for Niuafo'ou. In the case of 'Eua, the reduction in forecast vanilla income is more than offset by additional earnings from kava and squash. On Niuatoputapu, higher earnings from kava and handicrafts more than offset the reduced income from yams and taro and the elimination of vanilla income. Niuafo'ou has the highest earning potential per household from kava and this more than offsets lower than forecast earnings from vanilla, yams, taro, and watermelons. Details of crop production at appraisal and as revised in December 2000 are presented in Appendix 10.

B. Economic Performance

50. The anticipated economic performance of the Project is better than envisaged at appraisal. Crop production benefits have been delayed as a result of slower than anticipated implementation, but increases in household incomes have been greater than expected. Compared to appraisal estimates, financial crop production benefits per household are 41 percent higher for 'Eua, 18 percent higher for Niuatoputapu, and 55 percent higher for Niuafo'ou. The economic analysis at appraisal was based on export parity prices for crop production and benefits at project level were derived from household level data by assuming progressive adoption of changes introduced by the Project. This approach has been retained by adjusting the appraisal estimates of economic crop production benefits according to the differences in timing and levels of financial crop production benefits presented in Appendix 10. The revised telecommunications benefits are based on actual TCC revenue and are presented in Appendix 9.

51. The economic analysis used in the RRP made several adjustments to costs. At appraisal, economic foreign exchange costs were adjusted to border prices and local costs were adjusted by the standard conversion factor. In some cases (quarantine facilities off the target islands, community development funds, water supplies) no benefits were estimated, so costs were also excluded. These adjustments have been retained though it could be argued that given the expansion of the scope of the TA for MAF to include the whole department, a smaller share of the cost should be charged to the Project. The economic benefits and costs are presented in Appendix 11.

52. Project costs have been rescheduled in line with slower than expected implementation. Benefits have been correspondingly rescheduled. Telecommunications benefits have been deferred to commence in project year three and crop production benefits have been deferred to commence in project year five. This reflects the fact that the infrastructure and institutional strengthening activities were not implemented until project years three to five.

53. The base case economic internal rate of return (EIRR) is 25 percent compared to the appraisal estimate of 16 percent. This is high for an agricultural project but the improvement since appraisal has been assisted by the doubling of returns to the telecommunications component. Moreover, the increase in the area of kava under cultivation that has occurred since appraisal totals 381.5 acres. Over the next four years, this crop alone will result in a total additional T\$9.5 million in crop production income at present prices. Such economically efficient responses are possible because the project interventions, which at around \$700 per beneficiary are relatively inexpensive, are applied to a farm population that is already settled and housed. The strong kava prices have contributed greatly to returns, but on the other hand, the unstable vanilla prices and continuing shipping problems have restrained them. Kava prices are underpinned by strong domestic and export demand, and have been supported by the falling value of the pa'anga.

54. The sensitivity analysis in the RRP related to changes in the total value of crop production, changes in costs, exclusion of telecommunications benefits, and delays in the receipt of benefits. This found the Project to be robust in the event of adverse developments in these areas. Risks related to the costs and timing of implementation no longer exist and changes in these parameters from appraisal estimates have been incorporated in the revised analysis. Likewise, the value of farm production has already been affected by major changes in the prices of vanilla and kava, which have been accommodated in the revised analysis. However, the price of kava is historically high and this crop has emerged as a major source of the higher than forecast project benefits. This would be equivalent to the prices used in the RRP and is regarded as a worst case scenario. The crop production benefits on 'Eua would fall to about the RRP estimates while they would fall to below appraisal forecasts on both the Niua. The EIRR would fall to 22 percent.

C. Attainment of Benefits

55. Observable benefits in the form of increased rural incomes have appeared early for a project of this type, especially given the delays before loan effectiveness and in the early part of implementation. Given that the project-assisted improvements in the delivery of agricultural services have only been in existence for one or two years, the benefits achieved so far probably stem largely from the improvements in the transport and communications systems. In this regard, earlier investments in roads and ports on the target islands through the ADB-financed Transport Infrastructure Project have probably assisted in the achievement of these benefits. This conclusion would be consistent with the findings of very high economic returns to road and port investments made under that project.⁷

56. Although the outcome for the remote Niua has been favorable, it was expected that a more diverse range of enterprises would be launched there, supported by improved shipping services. These services have not materialized, either to Samoa or to Vava'u and Tongatapu. Without more frequent and regular transport services, the marketing of perishable produce from the Niua will not be possible and enterprises will be limited to dealing in storable items, particularly kava and handicraft, and potentially vanilla. The most important enterprises on these islands at present trade are kava and handicrafts, which are non-perishable and have a high value per unit weight. However, even these products need a transport system and there are current difficulties in marketing the Niuafo'ou kava crop. It is believed that these can be overcome and the full value of the crop has been included in the revised estimates of benefits.

⁷ PCR:TON 24338: *Transport Infrastructure Project* (Loan 1303 [SF]), ADB, March 2001.

However, if action is not taken, the position of Niuafu'ou households will be severely affected. Apart from the transport of produce, improved shipping is required for passengers and the inward transport of other goods, including fuel for the burgeoning vehicle fleet. In this respect, shipping between the Niua and Vava'u has a better chance of being economic than that between the Niua and Samoa because it would be used for passengers and inward goods.

57. It is disappointing that more precise information on benefits was unavailable at the time of PCR Mission. Substantial TA input went into planning a benefit monitoring system for MAF and the system proposed is practical and appropriate. Given the improved staffing of MAF's Economics and Planning section, it should be possible with minimal assistance to make it operational. Much of the information required is already produced, but not necessarily systematically. It is suggested that acceptance of the need for benefit monitoring could be enhanced if reporting on benefits could be included in existing departmental reporting so that it did not appear as an additional requirement. MAF has indicated that for the benefit monitoring and evaluation system to be useful, it should be converted into a format for incorporation in the Ministry's annual report to ensure that it is recorded systematically and consistently.

V. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

58. Despite a slow start, most of the Project was implemented before the originally planned completion date. Although there were long delays, the project schedule had enough flexibility to allow the implementors to make up for lost time. The target beneficiaries have responded rationally and enthusiastically to the opportunities created and, as a result, the increase in their incomes has been greater than expected. The Government agency most influential in the achievement of project goals, MAF, has been the focus of institutional development. While progress has been slow, there have been major changes in MAF's geographic focus and the way in which it interacts with its clients. These changes are in line with those intended by the planners of the Project. The future role of Tonga Trade remains uncertain. Although it had not developed as planned during the implementation of the TA, it has since achieved its greatest success by providing effective services to exporters and by generating substantial private sector support and funding for its activities. Road building has been subject to delays throughout implementation but in all cases the roads have been used effectively to the social and economic benefit of the beneficiaries.

59. It is clear that this Project and other investments have produced significant and beneficial changes in the lives of the target populations. Given its excellent sea and air links with Tongatapu, its improved road network, and growing economy, it is doubtful that 'Eua should still be classed as an outer island. Similarly, the lives of the people of the Niua have been changed by their increased ability to communicate with each other and the rest of the world through the improved telephone system and their improved mobility following the building of new roads. One of their tasks, to ensure that these benefits are sustained, is to generate increased incomes so that they can afford the cost of using telephones and of owning and operating vehicles.

60. Based on ADB's *Criteria for Assessment of Project Performance/Success*, the Project is judged to be successful (see Appendix 12). The Project's goals are rated highly relevant to ADB's strategic objectives, which focus on diversification including agriculture, infrastructure and support services for economic growth, private sector development, and human resources development. They are also consistent with the Government's development strategy, which makes agricultural and economic development of the outer islands a priority. As indicated

above, the Project has been efficacious since it has largely achieved its immediate objectives, the only limitation on efficacy being the delay in implementing some components. The Project is judged to be efficient in its use of inputs as indicated by the outputs it generated with inputs as planned. The sustainability of the Project is rated likely. Sustainability of agricultural systems has been enhanced by the introduction of integrated pest management and participatory on-farm research. The financial impact of the installation of the telecommunications component on the beneficiaries and on TTC gives rise to some uncertainty over the long-term sustainability of this component. The uncertainty over the role and funding of Tonga Trade also generates doubts about its sustainability in its present form. The institutional development impact of the Project is rated moderate. The focus, structure, and activities of MAF have been altered substantially as a result of the project and to the benefit of the rural sector. In the case of Tonga Trade, the desired level of institutional development has not been achieved. The social impact of the project on the Niuas has been striking.

B. Lessons Learned

61. The strong response of the beneficiaries to the opportunities created by the Project confirms that Tongan farmers, regardless of location, are economically motivated and will respond to attractive commercial opportunities. Moreover, the fact that the beneficiaries' choice of enterprises altered in response to changed market conditions indicates that they are market driven and, given the necessary information, will respond rationally. The design of the Project was aimed at improving the commercial and technical environment in which farmers operate rather than promoting a prescriptive mix of enterprises, and this allowed farmers to respond to changes within the project framework.

62. The strengthening of MAF has resulted in a more effective organization, better able to serve the farmers of Tonga. However, the restructuring took much longer than anticipated even with liberal provision of foreign technical assistance. Long-term, resident consultants would have been more effective than the intermittent inputs in maintaining progress. The extra cost of such additional inputs would have had to be weighed against the likely benefits. Regular and consistent supervision by ADB and the flexibility shown by all parties permitted the necessary adjustments to changed circumstances while retaining the original objectives.

63. The provision of access roads has been highly appreciated by the beneficiaries, producing both social and economic benefits. In areas with agricultural land not served by roads, provision of roads may be the most efficient way of stimulating economic growth.

64. The experience with the Tonga Trade TA exemplifies the difficulties of applying large-scale assistance to small and new organizations. Tonga Trade did not have the staff or financial resources to make the most effective use of the TA provided, especially the training component, when it was given. Moreover, the continuing underresourcing of Tonga Trade, together with its subsequent changes in orientation, suggest that support for its direction and role as specified in the RRP was not universal at higher levels of Government at the time of the TA. The more recent improvement in funding and apparent increase in effectiveness indicate that a shift in policy thinking has occurred. The scale of a TA must recognize the size and strength of the recipient institution and ensure that there is general political support for the TA since, without it, successful institutional change is impossible.

65. The goal of privatizing the operations of Tonga Trade within a short period was unrealistic and did not reflect the limited size and strength of the agricultural export sector, which was intended to assume the major roles in financing and directing the organization. Far

too much was expected of the private sector in relation to its ability to deliver. Given this conclusion, it is questionable whether the level of spending envisaged for Tonga Trade was justified, given the size of the export sector.

66. The telecommunications component has been efficiently implemented and is of great benefit to the target population. However, it will be a cash drain to TCC for some time. TCC has contributed to the achievement of important development goals, but its poor financial performance may conflict with its new corporate status. Some of the assurances and covenants contained in the RRP and Loan Agreement were unrealistic and surprisingly so given that the low commercial returns to this investment were known. When using commercially oriented organizations to achieve non-commercial objectives, ADB and the Government should acknowledge possible conflicts, and should gear financial arrangements to realistic assessments of commercial outcomes.

C. Recommendations

1. Project-Related

a. Future Monitoring

67. Roads are of great importance to project benefits and their maintenance should be monitored and implemented, particularly those on 'Eua. With continuing development of the economy of 'Eua, investment in upgrading the project roads and other rural roads on the island may be justified in the future.

68. Benefits in the form of increased rural incomes are still emerging but it is difficult to measure them. By December 2001, MAF should adopt the benefit monitoring system proposed as part of the TA and should incorporate the system as part of the overall MAF reporting system.

b. Covenants

69. By December 2001, ADB and the Government should amend the covenant requiring Tonga Trade to be at least 50 percent funded by the private sector to reflect the difficulties in complying and the possible risks in forced compliance. The intent of any replacement requirement should emphasize the need for private sector involvement in export promotion and the need for equitable sharing of costs between the private and public sectors.

c. Further Action

70. The Government should make adequate budgetary provision for the maintenance of buildings and roads and ensure that MAF facilities on the outer islands are fully staffed. The Government should continue to attempt to develop improved shipping services to the Niuas to enable the people there to participate more fully in the cash economy.

d. Additional Assistance

71. Project benefits would be enhanced by improved transport services to the Niuas. Given the potential volume of trade this may not be possible on a sustainable basis. Even if this is so, it would be valuable to have a realistic assessment of prospects so that planning can be based

on fact rather than undeliverable promises. External assistance should be sought to carry out such an assessment.

72. While some of the objectives of the Tonga Trade TA have been achieved, its status, funding, and role are still uncertain. Assistance in resolving these questions would be productive.

e. Timing of Project Performance Audit Report Preparation

73. A project performance audit report would be most useful if it were carried out no later than December 2006.

APPENDIXES

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PROJECT HISTORY OF MILESTONE EVENTS

A. Project Processing to Loan Effectiveness

26 October 1993	Approval of PPTA
25 July 1994 to 15 Jan 1995	Feasibility Study
21 March to 8 April 1995	Loan Fact-Finding
15 June 1995	Management Review Meeting
3 to 22 July 1995	Appraisal
3 October 1995	Staff Review Committee Meeting
7 to 17 November 1995	Loan Negotiations
21 November 1995	Board Circulation
12 December 1995	Board Approval
29 April 1996	Signing of Loan Agreement
23 December 1996	Loan Effectiveness

B. ADB Supervision and Implementation

January 1997	Tonga Trade TA consultants fielded. Project Management System in place.
24 February to 7 March 1997	ADB inception mission.
February 1997	TTC request to change from ICB to IS. Recruitment of MAF capacity strengthening TA changed from individuals to firms.
11 April 1997	Subsidiary Loan Agreement with TTC signed.
24 July 1997	MAF TA consultants fielded.
16-22 October 1997	ADB Review Mission. Tripartite meeting to discuss inception report for TA 2467-TON (MAF). Revision of scope agreed.
January 1998	Roadworks started on 'Eua.
February 1998	Telecommunications facilities on Niuafo'ou commissioned.
February 1998	Niuafo'ou water supplies completed.
3 June 1998	MAF implementation consultants fielded.
20-26 June 1998	ADB Review Mission. Tonga Trade TA reviewed and difficulties with staffing and private sector funding noted.
26 June 1998	Tenders for 'Eua buildings closed.
June 1998	NZODA agreed to finance the establishment of community funds for the Niuafo'ou of T\$25,000 per island.
November 1998	Work commenced on Niuafo'ou roads.
9-20 December 1998	ADB Review Mission. Tripartite midterm review of TA 2467-TON (MAF). Further reallocation of time among the experts was agreed. The completion date for TA 2468-TON was extended from 31 December 1998 to 31 December 1999.
December 1998	Research-Extension Division of MAF established.
February 1999	'Eua buildings completed.
February 1999	Project implementation consultant inputs completed.
October 1999	Niuafo'ou buildings completed.
October 1999	Niuafo'ou buildings commenced.

15-28 September 1999	ADB Review Mission.
September 1999	Niuafo'ou roads completed.
December 1999	Niutatoputapu roads completed.
January 2000	MAF Corporate Services Division established.
April 2000	Niutatoputapu buildings completed.
6-18 March 2000	ADB Review Mission Observable impacts on the economies of the Niuas and 'Eua noted.
July 2000	Consultant input for TA 2468-TON (Tonga Trade) completed.
August 2000	TA 2467-TON (MAF) completed.
4-13 October 2000	ADB Review Mission. Roadworks on 'Eua suspended pending review of expenditure.
December 2000	Crop surveys on 'Eua and Niuas completed by MAF.
17-31 May 2001	ADB Review Mission. Savings of \$76,174 reallocated to permit completion of 'Eua roads.

COST ESTIMATES/ACTUAL EXPENDITURES AND COMMITMENTS
(\$'000)

Subproject	Original Cost Estimates			Foreign Cost %	Actual Cost		
	Foreign	Local	Total		Foreign	Local	Total
I. Investment Cost							
A. Civil Works							
Buildings	323.80	971.50	1,295.30	100	894.56	110.68	1,005.24
Roads	200.60	601.70	802.30	100	740.10	94.44	834.54
Water Supply	89.80	89.80	179.60		0.00	271.50	271.50
Subtotal Civil Works	614.20	1,663.00	2,277.20		1,634.66	476.62	2,111.28
B. Vehicles	91.90	111.00	202.90	100	93.13	56.21	149.34
C. Equipment and Furniture	112.40	112.40	224.80	100	0.00	95.76	95.76
D. Telecommunications Equipment	1,334.50	444.80	1,779.30	100	1,209.09	433.18	1,642.27
E. Consulting Services							
Training	2.80	8.50	11.30	100	2.80	8.00	10.80
Specialist Services (Local)		18.20	18.20	100	16.00	19.00	35.00
Specialist Services (Foreign)	204.20		204.20		229.70	0.00	229.70
Subtotal Consulting Services	207.00	26.70	233.70		248.50	27.00	275.50
F. Research and Development							
Research Labor		48.50	48.50		0.00	33.95	33.95
Travel and Accommodation	16.80	50.40	67.20		0.00	47.04	47.04
Training Materials and Publications	22.40	67.40	89.80		0.00	62.86	62.86
Subtotal Research and Development	39.20	166.30	205.50		0.00	143.85	143.85
Total Investment Costs	2,399.20	2,524.20	4,923.40		3,185.38	1,352.62	4,538.00
II. Recurrent Costs							
Operation and Maintenance	0.00	125.40	125.40		0.00	120.00	120.00
Total Recurrent Costs	0.00	125.40	125.40		0.00	120.00	120.00
Total Baseline Cost	2,399.20	2,649.60	5,048.80		3,185.38	1,352.65	4,538.00
Physical Contingencies	194.50	141.20	335.70				
Price Contingencies	119.70	87.00	206.70				
Total Project Cost	2,713.40	2,877.80	5,591.20		3,185.38	1,352.62	4,538.00
Service Charge on the Loan	132.50	0.00	132.50		80.87	0.00	80.87
Total Costs	2,845.90	2,877.80	5,723.70		3,266.25	1,352.62	4,618.87

LOAN NO. 1412-TON(SF): OUTER ISLANDS AGRICULTURAL DEVELOPMENT PROJECT**Implementation Schedule**

Activity	1997 Year 1	1998 Year 2	1999 Year 3	2000 Year 4	2001 Year 5
Nominated Project Manager	■				
Establish Project Office	■				
	(2)	(6)	(3)		
Recruit and Field Consultants	■	■	■	■	
Initial Market Investigations	■	■			
Design Civil Works and Telecommunications Systems	■	■			
Construct MAF Facilities	■	■	■	■	■
Construct Roads	■	■	■	■	■
Construct Market Buildings	■	■	■	■	
Install Telecommunications System	■	■			
Select and Train MAF Staff	■	■	■	■	
Farmer Group Meetings	■	■	■	■	
Prepare Community Development Plans	■	■	■	■	
Farmer and Producer Training	■	■	■	■	■
Generate Improved Extension Packages	■	■	■	■	■
Implement Extension Packages	■	■	■	■	■
Plan Research Program	■	■	■	■	■
Implement Research Program	■	■	■	■	■
Specify and Order Equipment and Vehicles	■	■			
Receive and Deploy Equipment and Vehicles	■	■			
Implement MAF advisory TA	■	■	■	■	■
Review and Refine Market Information	■	■	■	■	■
Review Transport Links	■	■	■	■	
Implementation Tonga Trade Advisory TA	■	■	■	■	■
Baseline Socioeconomic Surveys	■	■	■	■	
Monitoring and Evaluation	■	■	■	■	■
Midterm Review	■	■	■	■	■

MAF = Ministry of Agriculture and Forestry, TA = technical assistance

Legend:

Actual
Planned Start (as envisaged at Appraisal)

PROCUREMENT DETAILS

Category	Contract Number	Contract Description	Awarded To	Contract Value \$	Mode of Procurement ^a	Date of Procurement
A. Civil Works						
	0005	Construction of roads on 'Eua	Ministry of Works	396,180	FA	1 July 1997
	0006	Construction of Tonga Telecommunications Commission Building, Niuafo'ou	Homecenter	82,627	LCB	8 September 1997
	0009	Construction of 'Eua MAF Buildings	Oregon Pacific International	339,577	LCB	3 August 1998
	0010	Construction of roads on the Niuas	Ministry of Works	33,869	FA	30 November 1998
	0011	Construction of Niuafo'ou MAF Buildings	Moala Friendly Construction	229,936	LCB	8 March 1999
	0013	Construction of Niuatoputapu MAF Buildings	Oregon Pacific International	242,420	LCB	6 October 1999
	0014	Construction of Niuatoputapu roads	Vete Holdings	218,679	DH	16 October 1999
B. Vehicles						
	0007	Supply of project vehicles and MAF vehicles	ASCO Motors	93,127	IS	3 March 1998
C. Telecommunications Equipment						
	0001	Supply, delivery, installation of domestic satellite earth stations, Niuas	NEC	1,009,256	ICB	12 December 1996
	0003	Telephone exchanges	Redcom Lab	195,212	ICB	22 May 1997
	0012	Supply and erection of security fence	Vete Holdings	4,620	DP	3 March 1999
D. Consulting Services						
	0008	Project implementation consultants	ANZDEC, NZ	248,504	ICB	3 June 1998

^a DP = direct purchase, DH = direct hire, FA = force account, ICB = international competitive bidding, IS = international shopping, LCB = local competitive bidding, MAF = Ministry of Agriculture and Forestry, ANZDEC, NZ = ANZDEC (New Zealand Consultants Ltd)
Source: South Pacific Regional Mission, ADB.

STATUS OF COMPLIANCE WITH MAJOR LOAN COVENANTS

Covenant	Relevant Date	Responsible Agency	Status of Compliance
1. The Project Director and the project managers to be appointed and the project steering committee (PSC) and the project offices to be established. The PSC to include the permanent island representatives, appointed by the Prime Minister's Office, from each of the Niua and 'Eua, in addition to representatives from MOF, MAF, MOW, TTC, MLCI, the Ministry of Foreign Affairs, CPD, PMD, and TDB.	Prior to loan effectiveness.	MOF, MAF, MOW, TTC.	Complied with.
2. MAF to prepare a time-bound action plan acceptable to the Asian Development Bank (ADB) for the necessary reorganization of MAF so that the Project can be implemented expeditiously. This plan will be implemented within six months of loan effectiveness.	Prior to loan disbursement.	MAF.	Delayed and partly complied with.
3. MLCI to appoint an individual with suitable professional experience as the Director of Tonga Trade, and to provide that the Director has appropriate executive authority to expeditiously direct the activities of Tonga Trade.	Prior to loan effectiveness.	MLCI.	Complied with technically, but not consistent with thrust of the RRP. (Secretary MLCI is not full time with Tonga Trade and has no private sector experience.)
4. MLCI to prepare a time-bound action plan acceptable to ADB for implementing the recommendations of the ADTA which are acceptable to the Government and ADB, in particular with regard to ensuring that at least 50 percent of the costs of Tonga Trade are met by the private sector within a further 12 months.	Within 12 months of start of the ADTA for the institutional strengthening of Tonga Trade.	MLCI.	Not complied with.
5. Island development committees, each including representatives of local communities, PMD, MAF, MOW, TTC and the relevant local government services, to be established on each of the outer islands.	Within three months of loan effectiveness.	MOF, PMD, MAF.	Complied with.
6. The Government to ensure, through the island development committees, that local communities on the outer islands are fully consulted on all important aspects of the Project activities to be implemented in their communities, and that all members of these communities (including women) have full opportunities to participate in extension and training activities carried out under the Project.	Within three months of loan effectiveness.	PMD, MAF.	Complied with.

Covenant	Relevant Date	Responsible Agency	Status of Compliance
7. MAF, in consultation with MOW, TTC, and the island development committees, to develop a plan acceptable to ADB for the operation and maintenance of the facilities constructed or improved under the Project.	Within six months of loan effectiveness.	MAF, MOW, TTC, PMD.	Delayed compliance.
8. The Government to ensure that all civil works carried out under the Project are in compliance with applicable environmental laws and regulations, and with applicable guidelines of ADB.	After loan effectiveness.	MOF, MOW.	Complied with.
9. MAF to prepare an action plan acceptable to ADB for training farmers on the outer islands in integrated pest management techniques and the appropriate use of agro-chemicals and fertilizers.	Within six months of loan effectiveness.	MAF.	Complied with.
10. A Subsidiary Loan Agreement that is satisfactory to ADB to be executed and delivered by the Government and TTC, and to be effective and binding on both parties thereto.	Before disbursement of ADB loan proceeds for the telecommunications sub-component.	MOF, TTC.	Technically complied with but not consistent with RRP requirement. (TCC bears exchange risk).
11. The Government to establish community funds for small infrastructure projects on the outer islands. The funds to be held at the local offices of TDB and to be used for capital improvements which will facilitate agricultural production, processing or marketing, handicrafts, or tourism. The projects to be financed out of such community funds to be selected by each community, as confirmed to the MAF Project Manager by the Permanent Island Representative concerned. The MAF extension officer on each of the outer islands to be responsible for reporting to the Project Director on the utilization of these funds.	Within six months of loan effectiveness	PMD, MAF, TDB.	Partly complied with. T\$25,000 each contributed by NZODA for NF and NTT. Fund operated by Central Planning Department and NZODA.
12. The Borrower shall furnish to ADB as soon as available, but in any event not later than six (6) months after the end of each related fiscal year, certified copies of the project audited accounts and financial statements and the report of the auditors relating thereto.	Within six months of end of fiscal year.	MOF.	Delayed compliance.
13. The Borrower shall furnish promptly completion report of the Project within three months of the physical completion of the Project.		MOF	Delayed compliance.

COMPARISON OF APPRAISAL AND ACTUAL LOAN DISBURSEMENTS
(\$'000)

Year	Quarter	Appraisal			Actual		
		Disbursed	Cumulative	%	Disbursed	Cumulative	%
1996		0	0				
1997	I	0	0		0	0	
	II	10	10		0	0	
	III	100	110		0	0	
	IV	100	210		240	240	
			210	5.78		240	7.56
1998	I	500	710		1,102	1,342	
	II	350	1,060		117	1,459	
	III	300	1,360		54	1,513	
	IV	100	1,460		9	1,522	
			1,460	40.17		1,522	47.94
1999	I	200	1,660		170	1,692	
	II	300	1,960		131	1,823	
	III	300	2,260		120	1,943	
	IV	200	2,460		34	1,977	
			2,460	67.68		1,977	62.27
2000	I	250	2,710		669	2,646	
	II	300	3,010		14	2,660	
	III	300	3,310		0	2,660	
	IV	100	3,410		15	2,675	
			3,410	93.81		2,675	84.25
2001	I	150	3,560		182	2,857	
	II	75	3,635		208	3,065	
	III		3,635	100.00	201	3,266	100.00
Total		3,635			3,266		

Source: ADB.

**MINISTRY OF AGRICULTURE AND FORESTRY TECHNICAL ASSISTANCE,
TA 2467-TON**

1. The project preparatory technical assistance identified a number of areas in which the Ministry of Agriculture and Forestry (MAF) would need to be strengthened to implement the Outer Islands Agricultural Development Project. The Asian Development Bank (ADB) had financed a review of the operations of MAF,⁸ which had recommended, inter alia, that MAF move toward a four-division structure. The report found MAF to be an effective organization, but with weaknesses in resource management (human, financial, and assets) and technical skills (farm and business management, analytical techniques, monitoring, evaluation, and understanding of the cash economy). The recommendations and findings were accepted in principle by the Government and a strategic plan for the reorganization and future operations of MAF was to be approved by Cabinet in 1996. ADB agreed to provide technical assistance (TA) focused on strengthening the capacity of MAF in the management of its market-oriented development projects.

2. The resources provided under the TA for a total of \$600,000 included 25.5 person-months of consulting services, \$40,000 worth of vehicles and equipment, and \$55,000 for incremental operating costs. The Government was to provide a contribution of \$30,000 in the form of office and secretarial support. The consulting services were 18 person-months for an institutional development specialist; three months for a management information systems specialist; two months for a benefit monitoring and evaluation specialist; and two and a half months for a media communications expert.

3. Recruitment of the required consultants was delayed by a change from individuals to a single company contract but the team was fielded on 24 July 1997. The inception report of the institutional strengthening specialist noted that the TA was designed to follow the adoption and implementation of the strategic plan for MAF. However, at that time of TA Inception, July 1997 this had not been done and the proposed restructuring of MAF had not occurred. The success of the TA was dependent on these changes having been made. A tripartite meeting held in October 1997 between the Government, the consultants, and ADB reviewed the issues raised in the inception report and concluded that the scope needed to be changed to allow the consultant team to assist with the reorganization proposed in the 1993 report on the review of the operation of MAF. ADB approved changes, within the budget limitations, to the terms of reference mainly affecting the institutional development specialist and rural sociologist, and minor reallocation of person-months to accommodate this requirement without sacrificing the original objectives.

4. The consultant inputs were provided in three main phases: July-November 1997, May-October 1998, and May-July 1999. The institutional development specialist provided short-term inputs until June 2000. Assisting with the implementation of the restructuring became a major activity of the institutional development specialist but progress was slow. The reformed Research-Extension Division was established in December 1998 and the Corporate Services Division in January 2000. Fortunately, these are the two divisions of most importance to the achievement of the goals of the Outer Islands Agricultural Development Project (OIADP). The formation of the Regulatory and Quality Management Division, and the commercialization of the mechanical services and forestry activities were still in progress at the time of project completion. A loan covenant required that the reorganization of MAF be implemented within six

⁸ TA 1712-TON: *Review of the Operations of the Ministry of Agriculture and Forestry*, for \$75,000, approved on 5 June 1992.

months of loan effectiveness and this has not been complied with. Substantial, but not complete, compliance was achieved by the time of project completion.

5. The inputs of the other specialists were provided as specified and accepted by the Government and ADB. A rural sociologist had been added to the team to assist with defining the needs of clients and improving linkages between MAF, farmers, and other interested groups. During his first input, the management information specialist helped MAF introduce program budgeting as required by the Ministry of Finance, an activity not included in his terms of reference. As a result of the TA and appointment of qualified staff, the use of computers is now widespread throughout MAF and data management much improved. The distribution of information is more attuned to the needs of clients and field staff and uses modern technology. A benefit monitoring system has been planned though, at the time of project completion, it had not been used. Staff at MAF believe that more work is required in this area and has made a proposal to request further assistance. The merger of the research and extension functions appears to have been successful in improving the standards of field services, though the sustainability of this improvement will need to be assessed after more time has elapsed.

6. In his final report, the institutional development specialist made a number of observations about the conduct of the TA and institutional improvement in the Government in general.⁹ "Implementation of the restructure was retarded by difficulties with recruitment, job rotations and the frequent absence of senior officers on overseas missions and the bureaucratic procedures of the Public Service. The fragmented nature and inadequate time allocated to the input from specialists did not adequately provide the support needed for MAF to fully achieve the revised objectives of the TA" (p. 11). Despite these difficulties and the need for a substantial revision of the purpose during implementation, the TA successfully achieved most of its goals.

⁹ Agrico (1995) Ltd. Final Report on Institutional Strengthening of the Ministry of Agriculture and Forestry, ADB TA 2467-TON, September 2000.

TONGA TRADE TECHNICAL ASSISTANCE, TA 2468-TON

A. Rationale

1. The Government in 1995 adopted a policy that the marketing of agricultural and other commodities should be rationalized under a new entity called Tonga Trade within the Ministry of Labour, Commerce and Industry (MLCI). Its roles covered market development, trade information, trade policy and trade promotion. The Asian Development Bank (ADB) provided a technical assistance (TA) grant to help Tonga Trade support the other components of the Project to increase sales of agricultural products and handicrafts.

2. It was the intention that Tonga Trade would be operationally independent of the Government and that private sector support would be gradually increased. Agreements stipulated that Tonga Trade would draw up an action plan indicating how at least 50 percent of its funding would come from the private sector by the beginning of the third year of its operations.

B. Resources

3. The TA provided a total of 20.5 person-months of consultancy input, namely 12 person-months for an export marketing specialist; 5 person-months for a management information systems specialist; and 3.5 person-months for short-term specialists for training in the development of marketing plans, presentational skills, and database analysis. In addition, the TA provided a total of \$401,000 to cover the costs of office equipment, vehicles, promotional travel, communications, publications, and training. The Government was to provide counterpart funding of \$230,000, mainly in the form of local staff and operating expenses for three years.

C. Implementation

4. Tonga Trade was formally inaugurated on 17 January 1997, with the first input of the consultants starting on 16 January 1997. The consulting services element of the TA was completed in July 2000. Initially, only one of the planned nine Tonga Trade positions was funded by the Government, with other positions, including those of Director and Deputy Director, being filled on part-time bases by staff from MLCI, most only being able to devote about 20 percent of their time to the work of Tonga Trade. Thus, a large technical assistance input was applied to a brand new institution with only a fraction of its designated staff on strength.

5. The TA services were to be provided in two phases: (i) a first phase of approximately six months to create a business plan for the operation of Tonga Trade and assist the permanent staff to gain support from industry and other sections of government for Tonga Trade's activities; and (ii) a second phase during the next 18 months that would continue to train permanent staff to achieve the objectives of Tonga Trade.¹⁰ This appeared to recognize that the capability and role of the institution needed to be developed first to enable it to play its role effectively. In the event, the inputs of the team leader were supplied in bursts of about one month rather than the solid six months envisaged by the proposed phasing.

¹⁰ Asian Development Bank. Proposed Loan and Technical Assistance to the Kingdom of Tonga for the Outer Islands Development Project. Report and Recommendation to the President, November 1995.

6. It is of interest that the terms of reference for the two main consultants relate more to the achievement of the goals of Tonga Trade than creating an organization that could achieve them itself. The qualifications and experience required of the appointees also emphasized skills in export marketing and management information systems rather than institutional development. In fact, the team leader spent considerable time on essential institutional development tasks including the preparation of proposals for the corporatization of Tonga Trade and seeking sources of private sector funding, but these were not carried through to finality.

D. Achievements

7. During the course of the TA, much was achieved. Marketing studies for priority commodities were carried out and industry profiles were produced, mostly involving locally hired consultants. Tonga Trade participated in and staged trade fairs and carried out trade missions to promote Tonga's produce. Industry organizations were promoted and the Kava Council was established. Information on trade developments and opportunities were disseminated through newsletters and other publications and remain accessible through the library and Internet facilities of Tonga Trade. Specific successes were recorded in helping make export sales, notably the sale of Tonga's stockpile of vanilla in 1999. These efforts were appreciated by industry.

E. Constraints

8. The TA was seriously affected by problems of staffing, funding, and the involvement of the private sector. ADB review missions had repeatedly drawn these problems to the attention of the Government. A tripartite review meeting involving the Government, the consultants, and ADB was held on 25 June 1998 to discuss these issues. Lack of dedicated full-time staff hampered work and produced excessive dependence on the human and other resources provided through the TA. High turnover of the MLCI and other staff allocated also reduced the long-term benefit of the substantial amount of training provided. The division of responsibilities between staff also changed from functional to sectoral and back to functional during the course of the TA. The tripartite review identified the appointment of a full-time deputy director as the most urgent staffing requirement. It was also informed of the impending funding of other full-time positions. While the timing of these commitments was not met, there was gradual improvement in the staff position during the TA and at the time of completion there were four full-time staff with considerable experience in the organization, including the deputy director.

9. Linkages with the Ministry of Agriculture and Forestry (MAF) and the Tonga Development Bank in relation to the promotion of export marketing was another problem area. The review accepted that responsibility for this function rested with MLCI and recommended that desks for agriculture and fisheries be set up in Tonga Trade and operated by staff from the respective ministries. It was also recommended that the antenna for the Centre for Industrial Development be moved from the Tonga Development Bank and that a forum be set up between the two organizations to facilitate the exchange of information. The lack of cooperation led to some duplication, waste of resources, and less than complete use of available information in the early stages of the TA. However, by completion, agreement had been reached on the roles of the three institutions, but the role of Tonga Trade was not well understood by the community at large.

10. The required privatization of Tonga Trade was noted by the TA Consultants as a problem area. The review was informed that Tonga Trade would become a limited liability company by the end of 1998. Although plans for incorporation had been drawn up by the TA

expert, these were not implemented. At the time of the final consultant input, it was decided that Tonga Trade would continue as a division of MLCI. MLCI and the TA team leader argued persuasively for this course of action¹¹ mainly on the grounds that the export sector was not mature enough to support the organization, that costs would be lower within the government structure, and that there were advantages in maintaining strong links with government. The establishment of a Tonga Export Authority was mooted. At the time of completion, plans to incorporate had been revived and may come to fruition in the apparently more favorable political climate. The formation of industry councils for kava, squash, and handicrafts, along with the planned formation of a Vanilla Council has in any case provided a mechanism for the involvement of the private sector in the formation of industry policy and the delivery of support services.

11. The covenanted requirement for 50 percent private sector funding was not complied with. The tripartite review considered this requirement to be unachievable and unrealistic. It was recommended that a short-term consultancy be used to design a cost-recovery model for Tonga Trade. However, at the time of completion, firm commitments had been obtained from squash exporters for funding totaling T\$120,000 for Tonga Trade. This was in return for labeling, certification, and market management services to be provided by Tonga Trade. While not meeting the 50 percent requirement, this represents a significant breakthrough and Tonga Trade has plans to raise funds for other industries on a similar basis. Tonga Trade is also directly engaged in the export of some products.

12. Shortage of public sector funds was also a continuing problem during implementation; little was provided by the Government and there were also delays in drawing down TA funds due to lack of experienced administrative staff in Tonga Trade. This improved in the 2001/02 budget, with Tonga Trade being allowed a T\$300,000 revolving fund and export diversification funding of T\$200,000.

F. The Privatization Issue

13. In the end, the privatization loan covenant has not been complied with and Tonga Trade has not developed in the way indicated in the RRP. Its role was seen as concentrating on information gathering and dissemination, but it is presently involved in exporting on a much more operational basis. This entails the risk of being seen by the private sector as a competitor rather than as a provider of services. This would result in the withdrawal of private sector support. Whether this occurs will depend on the strength of the private sector and the arrangements under which Tonga Trade provides its services. The export sector is not strong and this is one reason why the required private sector funding was difficult to attract. It is also argued by Tonga Trade that the services that it provides cannot be delivered by the private sector. Danger points are (i) the provision of services on a subsidized basis, which would stifle the emergence of private service providers, and (ii) the use of legislation to force exporters to use the services.

14. Throughout the TA, MLCI and the consultants indicated that planning to comply with the covenants was occurring, whereas the difficulties might have been clearly acknowledged early in the TA and revisions negotiated to move the organization in the direction intended but with realistic and achievable targets. That this did not occur is due to the underestimation of the need for institutional development in framing the TA inputs and the fact that Tonga Trade itself was a

¹¹ Ministry of Labour, Commerce and Industries, Institutional Strengthening of Tonga Trade (ADB TA 2468-TON). Final Report February 2001. Section 3.1.

new and underresourced organization. Failure to make a firm decision on the legal status of Tonga Trade has been a source of uncertainty, as exemplified by the change from its operating as a division of MLCI early in 2001 and revival of corporatization plans in mid-2001. The institutional development of MAF, which was assisted by TA 2467-TON and occurred in a long-established and well-staffed department, indicates that long-term external assistance is needed and that it is a slow process.

15. The final report of the consultants also questions the premise underlying the TA that production for export would be increased if producers were better informed about markets, and markets were developed through promotion. Conditions in Tonga made it difficult to establish a direct correlation and export development in Tonga was dependent on facilitating a number of interrelated factors including investment capital, industry organization, and the skills base of the population (MLCI 2001 consultants' Final Report). The current activities of Tonga Trade recognize these conclusions to some extent, particularly its role in the encouragement of investment.

G. Further Assistance

16. Despite its several years of existence, a number of questions important to the future of Tonga Trade have not been answered. It is not known how big the organization should be. Its size has been determined by its access to resources from the Government, the TA and, more recently, the private sector. But at no stage has the question been answered of what level of expenditure is justified and affordable for an organization with its functions. Nor have its role and functions been consistently defined. Finally, although the planners of the TA apparently had clear ideas on this question, the legal status of Tonga Trade and how it interrelates with the private sector have not been decided. It is recommended that part of the unused TA resources be used to address these questions.

RETURNS TO TELECOMMUNICATIONS INVESTMENT

A. Income

1. Total charges to telephone subscribers has averaged T\$105,408 on Niuatoputapu and T\$51,925 on Niuafu'ou for a total of T\$157,333 over the past two years. That compares with an estimated T\$12,000 per year on each island for the former radio system and T\$70,000-T\$80,000 used in the appraisal analysis. Hence, income from domestic calls is higher than expectation, despite the fact that charges are the same as for the rest of Tonga.

2. Income is also received for overseas calls coming into the Niua. The recently merged **Tonga Communications Corporation (TCC)** was unable to separate the income from this source attributable to the Niua, so the estimates used in the appraisal analysis were used. These indicate income rising from T\$60,000 in 1998 to T\$150,000 from 2003. It is believed that the merger of the domestic and international operations to form TCC will enhance returns from overseas calls, but it is noted that they are under some threat from US companies attempting to negotiate lower returns to TCC per minute of incoming calls. Recent poor commercial results of international communications companies reinforce this threat.

B. Costs

3. TCC pays for the use of the satellite for the system. At appraisal, this was estimated to cost T\$36,000 per year but TCC has revised this to T\$24,000. Other costs of running the Niua services total T\$88,779 per year. Information on the operating costs of the previous radio system are unavailable, so half this cost has been taken as incremental. The investment cost was estimated at appraisal at T\$2.356 million. Actual costs were T\$1.763 million. Cost and income details are presented in Table A9 below.

C. Net Returns

4. On the basis of these costs and returns, net returns before financing rise from T\$60,000 in 1998 to T\$150,000 from 2003 onward. The internal rate of return is 8.2 percent, compared with appraisal estimates of 4 to 5 percent. The improved economic performance is due to lower investment costs, higher income from domestic calls, and lower costs of satellite hire.

D. Financing and Cash Flow

5. The proceeds of the loan used to reimburse the costs of the telecommunications project were lent by the Government to TTC. TTC was to use the cash generated from the new service to repay the loan to the Government and it was expected that "the telecommunications subcomponent will generate its own revenue stream and is expected to reach its break-even point at the end of five years" (RRP, para. 66). The terms of the TTC subsidiary loan were to be "at least [ADB's] US dollar ordinary capital resources rate, currently 6.91 percent per annum, with a maturity of 15 years including a grace period of 3 years. The Government will bear the foreign exchange risk on the TTC loan" (RRP, para. 55). TCC was to ensure that charges were high enough to maintain financial viability.¹²

¹² Para. 14 of Schedule 6 to the Loan Agreement states "The Borrower shall ensure that maintained at sufficient levels to ensure TTC's financial viability."

6. The terms of on-lending set out in the RRP were generally followed; the interest rate is 6.79 percent; there is a grace period of 3.2 years; and final maturity is 14.7 years with the final payment being made in 2011. However, the loan is denominated in special drawing rights (SDR) and the Government is clearly not bearing the foreign exchange risk. This has resulted in substantial unintended costs to TTC since the value of the SDR has increased from T\$1.7921 in November 1997 when drawdown commenced to T\$2.6497 at the time of completion. Annual repayments of principal over the repayment period are SDR79,755 equivalent to T\$211,328 and interest payments were due to begin at SDR63,805 equivalent to T\$169,064 in 2000 for a total of T\$380,392 in that year. As a result, the investment is cash-flow negative for TCC to the extent of almost T\$200,000 in 2001 and will remain cash-flow negative until the loan is repaid.

7. The terms of on-lending determine to a large extent the sharing of costs and benefits of the telecommunications component between the Government and TCC. If the rate of exchange between the SDR and the pa'anga remain at 1:2.6497 applied at loan completion, effective rates of interest in pa'anga applying to the main parties would be: Government of Tonga to ADB 1.635 percent and TCC to the Government 12.29 percent. These compare with commercial bank interest rates for prime borrowers of 8.5 to 10.5 percent in Tonga between 1997 and 2000.¹³

8. The effect of the denomination of the subloan in SDR has been to increase the effective rate of interest to TCC in pa'anga to 2-4 percent above rates which would apply to a prime commercial borrower in Tonga. The effective rate of interest that the Government will pay in pa'anga has also increased from 1 percent to 1.635 percent. This, however, is still highly concessional and, given inflation of 6-8 percent per year during 1999 and 2000, negative in real terms.

E. Impact on Beneficiaries

9. The beneficiaries have enthusiastically embraced modern communications and clearly appreciate the service. Charges for telephones averaged T\$893 on Niuatoputapu and T\$741 on Niufo'ou per subscriber per year over the past two years. This is a high proportion of their disposable cash income. Arrears, although stable, amount to almost one year's charges on Niufo'ou and about four months on Niuatoputapu. Niufo'ou subscribers are reported to be experiencing difficulties in keeping up payments. The people of Niufo'ou were more seriously affected by the demise of the copra industry and their investments in kava, the crop on which its future economic hopes are based, are yet to pay off in cash. It is believed the stronger handicrafts economy on Niuatoputapu has enabled subscribers there to increase incomes to meet their new commitments.

F. Conclusions

10. This component has been implemented quickly and efficiently and usage is above expectations, but TCC will still have to cross-subsidize the service for some years. In the RRP it was envisaged that the investment would be self-financing and that TCC would be able to adjust charges if necessary to achieve this result. Other parts of the project designed to increase the incomes of the target populations were delayed and this has meant that the people have had their opportunities to spend more money increased before they have been given the means to increase their incomes. Under these circumstances it is doubtful if increasing charges would increase returns to TCC. It is more likely that phone usage would be curtailed to keep accounts

¹³ National Reserve Bank of Tonga, "Quarterly Bulletin", September 2000, Table C2.

within affordable limits. Given that it was always recognized that this investment would produce low returns,¹⁴ and that it has been efficiently implemented, it may be appropriate to renegotiate the terms in favor of TTC, at least to the level specified in the RRP.

Table A9: Telecommunications Costs and Returns
(T\$'000)

Year	Increm. Domestic Revenue	Increm. Incoming Revenue	Investment Cost	Satellite Rent	Increm. Operating Costs	Net Benefit	TCC Debt Service	TCC Cash Flow
1997	0.0	0.0	1,763.0	0.0	0.0	-1,763.0	0.0	-1,763.0
1998	133.0	60.2	0.0	24.0	44.4	124.8	98.0	26.8
1999	133.0	70.7	0.0	24.0	44.4	135.3	137.0	-1.7
2000	133.0	83.0	0.0	24.0	44.4	147.6	322.0	-174.4
2001	133.0	104.7	0.0	24.0	44.4	169.3	367.0	- 197.7
2002	133.0	111.1	0.0	24.0	44.4	175.7	353.0	-177.3
2003	133.0	150.0	0.0	24.0	44.4	214.6	339.0	-124.4
2004	133.0	150.0	0.0	24.0	44.4	214.6	324.0	-109.4
2005	133.0	150.0	0.0	24.0	44.4	214.6	310.0	-95.4
2006	133.0	150.0	0.0	24.0	44.4	2 14.6	288.0	-73.4

¹⁴ The financial internal rate of return for the telecommunications subcomponent was estimated at "between four and RRP, para. 97.

IMPACT ON FARM INCOMES

A. Estimates at Appraisal

1. During project preparation, the financial impact of the Project on rural incomes was assessed through model farm household budgets for each of the three islands ('Eua and the two Niuas). Incomes were to be increased by encouraging increased cultivation and introduction of technology to improve yields. The expected increase in cropping intensity and acreage cultivated was a relatively modest 14 percent on 'Eua and 50 percent, but from a low base, on the Niuas. Yield increases were also expected to be modest.

B. Changes since Appraisal

2. The Project is not yet mature and the full impact will not be observable for some years. However, some changes from the position that was forecast at appraisal have already occurred, mainly in the areas and production of different crops in response to changed price, transport, and marketing conditions. Since the farming systems component has only been in progress for a short time, it is unlikely that there has been time for new, yield-increasing technology to be developed for, and adopted by, farmers. Benefits from this component are expected to occur later.

3. The following assessment of changes has been based on:

- (i) recorded changes in prices and costs;
- (ii) the results of annual Ministry of Agriculture and Forestry (MAF) crop area surveys; and
- (iii) a workshop that was held in MAF on 18 July 2001 and that was attended by the MAF officers in charge from outer island stations, the women development officer, RED division specialists, MAF economists and marketing officer, and the project completion review team. A list of changes that appeared to have occurred between appraisal and completion was prepared by the project completion review team and was reviewed by the workshop.

4. **The squash industry** has remained more prosperous than expected, assisted on 'Eua by the improved road system, better access to transport, and mechanical cultivation. However, over time, squash production has become more concentrated on bigger farms on which it is possible to make more efficient use of mechanical cultivation, with production on smaller farms declining. Sales of squash from 'Eua averaged 2,200 tonnes in 1999 and 2000 compared with a level of 733 tonnes in 1996. It was estimated at appraisal that production would increase by only about 16 tonnes per year. Improved road access was a prerequisite for this increased production since squash is a bulky, low-value crop, and efficient transport is needed to meet shipping schedules. On-farm trials and extension services assisted by the Project also support the squash industry on 'Eua.

5. **Vanilla prices** were depressed to about half the levels used in the analysis in the RRP in 1998 and 1999, but surged to new records in 2000. Production, maintenance and planting were curtailed during 1998 and 1999 and statistics indicate that some of the area recorded in 1996 has been lost, almost totally in the case of the Niuas. This was confirmed by MAF staff from these areas. There has been a resurgence of rehabilitation and production activity since 2000 on 'Eua and it is expected that much of the original area will be brought back into

production. However, most of this existed pre-project and is not attributable to the Project. Production and marketing was always more difficult on the Niuas and the hotter climate there also cast some doubts as to the technical suitability of the sites for vanilla production. If the industry is to be revived there it will have to start almost from scratch. At appraisal it was estimated that farmers on all three islands would receive increased incomes from vanilla from project year five.

6. The mooted **shipping service** from the Niuas to Samoa is not yet operational, though produce from other parts of Tonga is being exported to American Samoa.¹⁵ It was expected that direct shipping to Samoa would provide a market outlet for root crops and some watermelons from the Niuas. Shipping to other ports in Tonga has also been irregular and unhelpful to the development of trade. Market buildings constructed under the Project are not used as markets and have not increased opportunities for local sales, so the only markets for perishable produce from the Niuas are village-based local markets supplying mainly yachts and wage earners, and those using the infrequent Government-sponsored shipping services to Tongatapu. Local market sales are greater on Niuatoputapu than on Niuafu'ou, supported by the stronger economy based on handicrafts there. Agricultural extension officers report that increased areas of root crops were planted on the Niuas, but some were wasted as a result of lack of markets, especially on Niuafu'ou.

7. **Kava demand and prices** have been higher than estimated. A financial price of T\$10 per kg was used in the project analysis whereas prices at the time of completion were T\$20 to T\$25 per kg. Standing immature crops of kava are being traded at prices of T\$25,000 per acre or greater. Farmers on all three islands have responded by growing greatly increased areas; from 67 acres in 1996 to 303 acres in 2000 on 'Eua; from 37.5 acres to 108 acres on Niuafu'ou; and from 20 acres to 95 acres on Niuatoputapu. Much of the Niuatoputapu kava is grown on the island of Tafahi and some farmers have moved to Tafahi from Niuatoputapu to take advantage of the favorable growing conditions there.

8. Demand for **root crops, vegetables, and fruits for domestic consumption** on Tongatapu and for export have remained strong, providing opportunities for 'Eua farmers to sell produce. Average prices for yams and taro were about 20 percent above appraisal estimates. However, acreages have not increased significantly. Instead, incomes have been increased by interplanting root crops with kava. The land and other resources devoted to increased production of squash may also have restricted the increase in production of root crops.

9. On all islands, interest in expanding production of **handicrafts** has been strong, as reflected in planting of paper mulberry and pandanus and its importance in MAF programs. Handicrafts have featured strongly in trade fairs organized by Tonga Trade and demand has increased. Some change in the structure of the industry is also evident with the sale of semi processed handicraft materials for finishing elsewhere. This may provide opportunities to earn increased returns per unit of labor. The information base for handicrafts is the poorest of the enterprises under review. No information is available on exports, while the growth rates and yields of the trees used to produce the raw materials are not documented as well as for other crops.

¹⁵ The MAF 1996 Annual Report records that export of produce on the Olovaha direct from Niuatoputapu to Pagopago amounted to 875 kg of root crops, 108 watermelons, 78 coconuts and 78 giant taro. Such volumes are inadequate to support an international shipping service. The successful service between 'Eua and Tongatapu indicates that the transport of passengers and nonagricultural goods is more important to success than agricultural produce. On this basis, it is more likely that sustainable services can be developed between the Niuas and other parts of Tonga rather than Samoa.

10. Sale of **firewood and planting material** has become a significant industry for farmers on 'Eua. This has been assisted by project roads providing access to fields for removal of regrowth trees cleared for new gardens and transport of bulky planting material. Project analysis made no allowance for these benefits. Limited observation of shipping cargoes from 'Eua to Tongatapu indicated that up to half the cargo could consist of firewood and planting material.

11. Project analysis made no allowance for increased production of **livestock**. Agricultural extension officers indicated that the provision of access roads led to increased livestock numbers since it made it easier for owners to manage and provide water for them where they grazed or foraged. The surplus root crop production and coconuts formerly used for copra production on the Niuaus would also provide fodder for additional livestock, or better feeding of existing ones. However, statistics to 2000 did not show significant increases in numbers of livestock.

C. Costs

12. A full review of the cost of inputs was not possible, but the items for which information was available suggested that, apart from kava and vanilla, there had been no major change in the terms of trade facing farmers. The cost of labor had increased by 20 percent and tractor hire by about 15 percent. The costs of fertilizer had increased by about 10 percent while the price of squash seeds fell. For most enterprise budgets, most of the inputs are supplied by the household and cash costs are a small proportion of total costs.

D. Revised Estimates

13. The estimates of the impact of the Project on agricultural incomes made at appraisal were revised on the basis of these changes:

- (i) income from squash on 'Eua was increased by T\$800 per household by year 3, compared to zero increase in the RRP. This reflects increases already achieved;
- (ii) increases in vanilla income on 'Eua were deferred by five years to reflect the interruption to planting and maintenance, which occurred following the low prices of 1998 and 1999. Benefits from vanilla on the Niuaus were eliminated;
- (iii) income from yams and taro on 'Eua has been left unchanged. There is a high level of commercial activity but it is unquantified and area data do not suggest significant expansion of plantings. Root crops would have been affected by higher than expected competition for resources from the increased squash and kava production;
- (iv) income from yams and taro on Niuaotoputapu has been reduced by 60 percent to reflect the limited export marketing opportunities, but some local sales. Income from yams and taro on Niuafo'ou has been reduced by 70 percent to reflect the more limited local market there;
- (v) income from kava has been increased to reflect the higher prices and increased planting on all islands. Increases in income from project year 5 have been increased to T\$1,900 for 'Eua; T\$2,300 for Niuaotoputapu; and T\$3,100 for Niuafo'ou. The derivation of these changes is presented in Table A10;
- (vi) income from watermelons and various crops on Niuafo'ou has been reduced by 70 percent to reflect the fact that marketing to Samoa is not yet practical; and

(vii) additional income from handicrafts has been doubled for Niuatoputapu. The people there have been able to pay their telephone accounts of around T\$900 per subscriber per year as well as supporting the increased vehicle fleet. The income for this has almost certainly come from handicrafts. Additional income under the “various” category for increased by 50 percent to reflect the high level of planting of trees for handicraft material. No change has been made to estimated handicraft income for ‘Eua.

14. No allowance has been made for benefits from firewood, planting material or livestock because of difficulty in quantification and weaker linkages with the Project. However, it is believed that more detailed investigation would reveal benefits from the Project in these areas. To this extent, the revised estimates are conservative.

Table A10: Increases in Household Income

Item\Year	1	2	3	4	5	6	7	8	10	20
1. 'Eua at Appraisal										
Yams	0	1,131	1,161	1,192	1,222	1,253	1,283	1,314	1,375	1,500
Taro	0	20	40	59	79	99	119	138	178	375
Kava (dried)	0	8	16	853	875	895	917	938	981	1,100
Vanilla	0	0	0	0	100	400	700	800	800	800
Squash	0	8	16	24	32	40	47	55	71	150
Tapa Cloth	0	0	750	750	750	750	750	750	750	750
Total	0	1,167	1,983	2878	3,058	3,437	3,816	3,995	4,155	4,675
2. 'Eua Revised										
Yams	0	1,131	1,161	1,192	1,222	1,253	1283	1,314	1,375	1,500
Taro	0	20	40	59	79	99	119	138	178	375
Kava (dried)	0	8	16	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Vanilla	0	0	0	0	0	0	0	100	400	800
Squash	0	8	800	800	800	800	800	800	800	800
Tapa cloth	0	0	750	750	750	750	750	750	750	750
Total	0	1,167	2,767	4,701	4,751	4,802	4,852	5,002	5,403	6,125
3. Niuatoputapu at Appraisal										
Yams	0	10	19	29	38	48	57	67	86	180
Taro	0	457	474	491	508	525	542	559	592	688
Kava (dried)	0	8	16	853	875	895	917	938	981	1100
Vanilla	0	0	0	0	100	400	700	750	750	750
Pandanus mats	0	0	550	550	550	550	550	550	550	550
Total	0	475	1,059	1,923	2,071	2,418	2,766	2,864	2,959	3,268
4. Niuatoputapu Revised										
Yams	0	4	7.6	11.6	15.2	19.2	22.8	26.8	34.4	72
Taro	0	182.8	189.6	196.4	203.2	210	216.8	223.6	236.8	275.2
Kava (dried)	0	8	16	2,300	2,300	2,300	2300	2,300	2,300	2,300
Vanilla	0	0	0	0	0	0	0	0	0	0
Pandanus Mats	0	0	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Total	0	194.8	1,313.2	3,608	3,618.4	3,629.2	3,639.6	3,650.4	3,671.2	3,747.2
5. Niuafo'ou at Appraisal										
Yams	0	10	19	29	38	48	57	67	86	180
Taro	0	457	474	491	508	525	542	559	592	688
Vanilla	0	0	0	0	100	400	700	750	750	750
Water Melon	0	707	714	721	728	735	742	749	763	770
Various	0	0	0	400	400	400	400	400	400	400
Total	0	1,174	1,207	1,641	1,774	2,108	2,441	2,525	2,591	2,788
6. Niuafo'ou Revised										
Yams	0	3	5.7	8.7	11.4	14.4	17.1	20.1	25.8	54
Taro	0	137.1	142.2	147.3	152.4	157.5	162.6	167.7	177.6	206.4
Vanilla	0	0	0	0	0	0	0	0	0	0
Water melon	0	212.1	214.2	216.3	218.4	220.5	222.6	224.7	228.9	231
Kava	0	0	0	3,100	3,100	3,100	3,100	3,100	3,100	3,100
Various	0	0	0	600	600	600	600	600	600	600
Total	0	3,52.2	3,62.1	4,072.3	4,082.2	4,092.4	4,102.3	4,112.5	41,32.3	4,191.4
Table										
Economic Budget (aggregated).										
From RRP	1	2	3	4	5	6	7	8	10	20
Crop Production Benefits										
Eua	0	178,787	364,708	557,393	777,771	808,088	852,628	904,547	993,953	1,012,240
Niuas	0	138,628	238,753	334,394	456,859	480,478	512,392	543,199	592,209	600,800
Telecoms Benefits	0	14,236	21,584	30,186	45,231	49,882	76,878	76,878	76,878	76,878
Total Benefits		331,651	625,045	92,973	1,279,861	1,338,448	1,441,898	1,524,624	1,663,040	1,689,918

ECONOMIC BENEFITS AND COSTS
(2001 T\$'000)

Item\Year	1	2	3	4	5	6	7	8	10
Economic Budget (Aggregated).									
From RRP									
Crop Production Benefits									
'Eua	0	178	364	557	777	808	852	904	993
Niuas	0	138	238	334	456	480	512	543	592
Telecom. Benefits	0	14	21	30	45	49	76	76	76
Total Benefits		331	625	921	1,279	1,338	1,441	1,524	1,663
Cost of MAF TA (50%)	224	204	197						
Cost of TT TA (50%)	151	180							
Project Costs	3,082	583	613	100	100	64	64	64	64
Net Benefit	-3,458	-765	-375	560	829	960	1,059	1,136	1,268
Revised									
Crop Production Benefits									
'Eua	0	0	0	0	234	478	730	1,019	1,058
Niuas	0	0	0	0	178	308	431	589	612
Telecom. Benefits	0	0	125	135	148	169	176	215	215
Project Costs	313	2,015	627	896	627	65	65	65	65
Net Benefit	-313	-2,015	-502	-761	-67	890	1,272	1,758	1,820

ASSESSMENT OF INITIAL PROJECT PERFORMANCE

Project Assessment Criterion	Evidence	Weighting	Score	Weighted Score
A. Outcome				
Relevance	Judged to be highly relevant to the strategic objectives of the Asian Development Bank (ADB), which focus on diversification, including agriculture; infrastructure and support services for economic growth; private sector development; and human resources development. Judged to be highly relevant to the Government's development strategy, which makes agricultural and economic development of the outer islands a priority.	0.20	3.00	0.60
Efficacy	Judged to be efficacious since it has largely achieved its immediate objectives, the only limitation being the delay in implementing some components.	0.25	2.00	0.50
Efficiency	Judged to be efficient in its use of inputs as indicated by the outputs that it generated with inputs as planned.	0.20	2.00	0.40
Sustainability	Judged to be likely based on the undertaking of the Government to increase the budget for maintenance of roads and Ministry of Agriculture and Forestry (MAF) facilities on the outer islands. Judged to be likely because the sustainability of agricultural systems has been enhanced by the introduction of integrated pest management and participatory on-farm research.	0.20	2.00	0.40
Institutional Development	Judged to be moderate. The focus, structure, and activities of MAF have been altered substantially as a result of the Project and to the benefit of the rural sector. In the case of Tonga Trade, the desired level of institutional development was not achieved.	0.15	2.00	0.30
Overall Assessment				2.20