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SOCIAL ECONOMICS, POLICY AND DEVELOPMENT

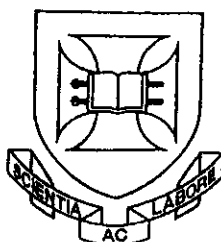
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**The Development of Tuvalu:
An Analysis of Trends, Issues and Policies**

by

Clem Tisdell

May 2000



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* This is a background paper used by the author as an input in preparing a report for the UN on the least developed Pacific island nations in relation to the UN "Final Review of the Implementation of the Programme of Action for the Least Developed Countries for the 1990s". The views expressed in this paper are those of the author and do not necessarily reflect the views of the United Nations.

† I sincerely wish to thank all those interviewed in Tuvalu (see appendix) for their assistance as well as many outside of Tuvalu who gave assistance. The usual *caveat* applies.

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Abstract

Tuvalu is one of the five least developed Pacific island nations according to the classification of the United Nations. This article reviews the situation of Tuvalu in relation to its development generally but paying particular attention to

- public and private finance;
- social issues such as education and health;
- its trade and external balance and
- economic infrastructure.

Policy suggestions are made in relation to each of these matters and an assessment given of the development status of Tuvalu.

1 BACKGROUND

With a population of barely 10,000 people and a land mass of 25.63 km² divided between 9 scattered islands, Tuvalu is one of the world's smaller nation states. Furthermore its relative isolation, its geographical segmentation and its poor atoll soils restrict its economic capabilities. On the other hand, it has rich fishery resources in relation to its population both within its lagoons and in its large EEZ. Fishing resources within its EEZ are mainly exploited by DWFNs. Although Tuvalu's fisheries are highly variable in their productivity depending on seasonal conditions, fishing royalties from DWFNs have in recent years provided more than 15 per cent of the total receipts of the Government of Tuvalu.

Another important asset of Tuvalu is the Tuvalu Trust Fund (TTF) which was established in 1987 principally by overseas donors 'to contribute to the long-term financial viability of Tuvalu by providing an additional source of revenue for recurrent expenses of the Government'. In the 1990s, it contributed about 20 per cent of the Government's recurrent revenue. In 1998, the Tuvalu Trust Fund (A Account, its 'untouchable' balance) stood at A\$59.464 m.

In recent years, Tuvalu has had virtually no export of goods. Little copra is now exported. Philatelic sales and bunkering are the main export items in the goods category. Its external trade balance as well as its external service balance are in substantial deficit. However, this trade deficit is more than balanced by income receipts from abroad (e.g. payments from its merchant seamen), transfers from the Tuvalu Trust Fund A Account, and income from fishing licenses as well as foreign aid. As a result, Tuvalu has been able to accumulate significant official reserve assets. In 1988, it is estimated that these stood at \$A38.17m, over three times Tuvalu's net import of goods and almost three times its total GDP at factor cost. Hence Tuvalu is in a relatively strong position in relation to its balance of payments and international reserves. This is largely a result of the presence of the TTF and prudent fiscal management by its government.

In 1996, GDP per capita in Tuvalu was estimated to be \$A1819. In comparison, GDP per capita of Kiribati was about \$A886 (ADB, 1998b, p.199). This suggests a higher standard of living in Tuvalu than in Kiribati. Furthermore whereas such income in Tuvalu (GDP per capita) more than doubled in that in the 1990s compared to the 1980s (ADB, 1998a, pp.137, 437) that for Kiribati rose by less than 20 per cent and erratically (Cf. ADB, 1998b, p.199). In fact in the 1980s and 1990s, GDP per capita in Kiribati was less than in 1979.

The public sector dominates the local economy of Tuvalu both through the activities of general government and public sector commercial enterprises. In 1998, as discussed later, more than half of direct cash employment in Tuvalu was generated by the government and public corporations, and probably most of Tuvalu's indirect cash employment.

Tuvalu has taken a cautious attitude towards foreign debt. It has a soft loan from the European Investment Bank which provided funds for the Development Bank of Tuvalu. But this is virtually a grant and the principal will be forgiven if difficulty arises in repayment which seems almost certain given the performance of the DBT.

A soft loan equivalent to \$A4m has been negotiated with the ADB as a contribution towards the Falekaupule Trust Fund (Outer Islands Development Trust Fund) discussed later. Tuvalu is fortunate in being virtually free of foreign debt. It is a country which has assiduously avoided living beyond its means, meagre though they might be. Slowly but methodically, it has improved its financial position.

Tuvalu relies mostly on foreign aid and to a lesser extent on its own available funds for development projects rather than loans. Official foreign aid is quite variable between years. In 1999, Tuvalu plans to use \$A9.3m of its own available funds for special development purposes. It estimates that it will receive foreign aid of almost \$A16m or about \$11m if the ADB loan of \$5.135 m is deducted. In 1998, its extra budgetary aid amounted to only \$A4.7m. For 1999, external grants are estimated to be \$1.24m. Apart

from the ADB, Australia and the Republic of China are expected to be its main sources of aid in 1999. Because of the short time series available, it is not possible to decide whether aid available to Tuvalu is currently declining. However, estimated grants for 1999 are up on those grants of 1996. Overall real aid seems to be about stationary in recent years and possible will not expand greatly. Real government development expenditure in Tuvalu is to a large extent a reflection of the availability of foreign aid. From ADB (1998, Chart 2.11, p.28) and more recent data, it is clear that Tuvalu's development expenditure rose significantly in real terms in the second half of the 1990s compared to the first half. This suggests that real aid rose in the latter period. However, in this latter period also the Government of Tuvalu began to increase its contribution from its own funds to Tuvalu's development progress. Overseas development assistance to Tuvalu did not decline in the 1990s.

2 FINANCES AND RESOURCES FOR DEVELOPMENT

2.1 National Development Plans and Resource Gaps

Tuvalu's extra budgetary desired expenditure typically exceeds its available aid. In 1998, its estimated shortfall of overseas aid was 25 per cent but actual extra-budgetary revenue was only about one-third of that estimated originally. There was a two-thirds shortfall in desired EXB (extra-budgeting) expenditure, representing a gap of \$A9.6m. The reasons are varied including limits on absorption capacity in Tuvalu.

As mentioned in ADB (1998a), *Kakeego o Tuvalu: National Development Strategy - 1995 to 1998* (Government of Tuvalu, 1995) was intended to provide policy guidelines for development. However, possibly because of change of government in 1995, progress in implementing the *Kakeego* has been slow. Progress in corporatisation of the public sector has been slow but the contracting out has increased. Broadcasting and information services (printing) are to be corporatised in the near future and the Tuvalu Maritime School is expected to be corporatised by the middle of next year. Virtually no privatisation of Government economic activities seems to have occurred.

Considerable effort has been made to improve the efficiency of the public sector. Performance budgeting has been introduced and program activities have been specified. It is however, unclear how performance goals will be monitored and penalties imposed for their non-fulfillment.

Although not mentioned in the *Kakeego*, ADB (1998a, p.33) states that “with respect to outer island development, the concept of an Outer Island Development Fund based on the TTF example, but focused on supporting capital expenditure, is worthy of further investigation against a background evaluation of past and existing projects”. In fact on 31st July, 1999 agreement was reached on such a fund to be called the Falekaupule Trust Fund. This will be discussed under social issues. This fund should be of considerable assistance in promoting decentralisation in Tuvalu.

In line with proposed greater attention to women’s development, youth development and social welfare as mentioned in the *Kakeego*, a special section has been established within the Ministry of Health, Women and Community Affairs to give attention to these matters.

2.2 Public Finance in Tuvalu, Current and Development Budgets

The government of Tuvalu in the period since 1980 have pursued a careful financial policy in order to enhance the long-term sustainable development prospects of Tuvalu. For the period 1980-2000, its recurrent budget balance should be positive. In this period, the real value of the TTF will have increased and the Falekaupule Trust Fund (Outer Island Trust Fund) will have been established with a significant contribution from Tuvalu. Both the TTF and the Falekaupule Fund provide an important capital resource base for long-term development and economic stability.

As mentioned earlier, TTF A and B accounts exist. TTF A is adjusted to preserve the real size of the fund. TTF B arises from excess funds transferred from TTF and held in the Consolidated Investment Fund to act as a stabilizing item in the Government’s budget. Government revenues are highly variable and therefore a contingency fund is needed.

One item which substantially adds to variability of Tuvalu's public revenue is year to year variation of income from fishing licenses.

Table 1 presents an overview of the 1999 budget of Tuvalu. Its recurrent core budget is in surplus. In relation to its proposed development expenditure, the government of Tuvalu will fund some of this (about one-third in 1999) but it will look to overseas aid for most of its development funds. Most development projects will only proceed if a foreign donor can be found. In the foreword to the National Budget for 1999, the Minister of Finance and Economic Planning states:

"The Government has a strong desire to take on more responsibility in financing its development programmes whilst maintaining a healthy balance in the Consolidated Investment Fund (CIF). The large Special Development Expenditure of \$9.3 million (SDE) accounts for more than a third of Public Sector Programme in 1999, signaling to our development partners the commitment of the Government to social and economic development".

INSERT TABLE 1

Although the core recurrent budget of the Government for 1999 is in surplus, its overall recurrent budget shows a deficit after allowing for special development expenditure (SDE) by the Government. The Minister for Finance and Planning in the Foreword to the Budget states:

"After financing the SDE programme the budget deficit, excluding XB items stands at \$5.5 million. Given the available finance of about \$11.5 million, this means that we are able to cover the deficit and make a contribution to the TTF of \$1.2 million (in accordance with the DSP project documentation) and maintain about \$4.8 million in the CIF at years end. This will enable the CIF to perform its role as a buffer to stabilize the budget if there is an unexpected shortfall in revenues".

It should be noted, however, that given annual fluctuation in public receipts for Tuvalu, the government is unlikely to have sufficient 'surplus' funds to maintain special development expenditure at the proposed 1999 level on a regular basis.

Table 1
An Overview of the 1999 Budget of Tuvalu in \$A

	Recurrent	Development	Total
1. Total revenue and grants ^(a) (=1.1+1.2+1.3)	17,731,025	12,837,025	30,288,025
1.1 Total non-grant (=1.1.1+1.1.2)	13,837,025	-	13,837,025
1.1.1 Tax ^(b)	3,660,000	-	3,660,000
1.1.2 Non Tax	10,177,025	-	10,177,025
1.2 Total grants ^(d) (=1.2.1+1.2.2)	1,240,000	12,557,600	13,797,600
1.2.1 Operating grants and transfers	40,000	6,962,400	7,002,400
1.2.2 Capital Grants	1,200,000	5,595,200	6,795,200
1.3 Other Revenue ^(e) (=1.3.1)	2,654,000	-	2,654,000
1.3.1 Automatic distribution from the Tuvalu Trust Fund	2,654,000	-	2,654,000
2. Total expenditure (=2.1+2.2)	13,911,099	26,061,850	39,972,949
2.1 Operating expenditure (=2.1.1+2.1.2)	13,495,909	9,620,400	23,116,309
2.1.1 On Government's own account ^(f)	11,519,409	6,293,400	17,812,809
2.1.2 Current grants and transfers to other agencies	1,976,500	3,327,000	5,303,300
2.2 Capital expenditure	415,109	16,441,450	16,856,640
2.2.1 On Government's own account	215,190	7,101,450	7,316,640
2.2.2 Capital grants and transfers to other agencies	200,000	9,340,000	9,540,000
3. Core budget balance: surplus/(deficit) (=1-2-1.3)	1,165,926	-	-
4. Actual budget balance: surplus/(deficit) (=1-2)	3,819,926	13,504,250	9,684,324
Financial Management transactions			
Contribution to the Tuvalu Trust Fund ^(g)	1,200,000	-	1,200,000
ADF loan from the ADB for Falekaupule Trust Fund	-	4,200,000	4,200,000
Net Charge in balance of Consolidated Fund	2,619,926	9,304,250	6,684,324

- (a) Total Revenue and grants equals recurrent revenue plus XB revenue (which equals XB spending). "Development" includes XB and Special Development Expenditures (SDEs). The deficit on development is equal to SDE spending.
- (b) Income Tax, company tax, sales tax, import duties, room tax, airport departure tax, and liquor and firearm licenses.
- (c) The \$4.2m non-tax revenue for development is the anticipated ADB (ADF) loan for the Falekaupule Trust Fund.
- (d) Operating grants for development include TA, training and scholarships.
- (e) The TTF distribution is treated separately because of its potential size and volatility.
- (f) Spending that is for and by Central Government (ie it excludes transfers to other agencies).
- (g) The value of Tuvalu's assets is not changes by transfers between the CIF and TTF. Such transactions do not contribute to a deficit. They are therefor treated 'below the line' as Financial transactions.

Source: Government of Tuvalu (1999, p.1)

Table 2 sets out the budget estimates for 1999 for recurrent revenue for Tuvalu. This table shows that import duties are the most important source of taxation receipts followed by income tax. Sales tax is also an important source of taxation revenue. The interest and dividend component is significant source of revenue but funds from fish licenses in 1999 (estimated to be \$5 million) are expected to be the major contributor to public current revenue. However, this component is volatile and can vary between years by large amounts depending on natural variations in the abundance of fish. Telecom licenses for the hire of satellite communication capacity make a sizeable contribution to public revenue. They are used by overseas corporations to provide internet services. Grants from overseas aid donors, an additional source of current revenue, appear to be highly variable between years.

INSERT TABLE 2

Total recurrent expenditure by purpose is shown in Table 3. In 1999 after the allocation to the Office of the Prime Minister, the largest allocations, in order, are to education and culture; to works, energy and communications, followed by health, women and community affairs.

INSERT TABLE 3

2.3 Economic Reforms, especially Public Sector Reforms

Economic reforms are being introduced gradually in Tuvalu. The main reforms have been in the introduction of output budgeting with performance indicators. In introducing the 1999 Budget, the Minister of Finance and Economic Planning stated:

“The framework of output budgeting is intended to provide an additional layer of information in the Budget that contributes to improved economic and financial management, more cost effective and efficient planning processes, greater transparency and accountability in the Budget, and improved management and personnel planning in the public service”

Table 2
Summary of Estimated Recurrent Revenue by Type for Tuvalu,
1995-1999, \$A

	<u>1995</u> <u>Actual</u>	<u>1996</u> <u>Actual</u>	<u>1997</u> <u>Actual</u>	<u>1998</u> <u>Revised</u>	<u>1999</u> <u>Estimated</u>
1 Taxation					
Income Tax	654,097	720,724	1,090,811	1,053,191	930,000
Company Tax	431,270	220,154	307,747	413,053	480,000
Sales Tax	368,301	445,294	349,193	510,846	500,000
Import Duties	1,323,067	1,085,408	1,286,452	1,842,242	1,500,000
Other indirect taxes ^(a)	112,695	96,966	84,461	151,461	250,000
Sub Total	2,889,430	2,568,546	3,118,664	3,970,793	3,660,000
2 Interest and dividends ^(b)	190,348	964,467	763,207	873,203	771,000
Sub Total	190,348	964,467	763,207	873,203	771,000
3 Government charges					
Fish licenses	2,141,429	921,476	3,567,603	6,516,028	5,000,000
Telecom licenses	-	1,563,010	2,754,968	2,357,311	2,090,190
Investment Passport Scheme	-	-	-	30,175	500,000
Other Charges	1,440,472	2,306,247	1,401,392	2,088,356	1,815,825
Sub Total	3,581,901	4,790,733	7,723,963	10,991,870	9,406,015
4 Grants	566,767	866,227	29,495	415,597	1,240,000
Sub Total	466,767	866,227	29,495	415,497	1,240,000
Other revenue					
Automatic distribution from TTF to CIF	-	-	3,893,261	11,100,000	2,654,000
Total other revenue	-	-	3,893,261	11,100,000	2,654,000
Total additions to consolidated fund	7,228,446	9,189,972	15,528,590	27,351,463	17,731,025

(a) Includes airport departure tax, room tax the import levy, and liquor and firearm licenses.

(b) Includes all interest receipts, the automatic distribution form the TTF, returns on the CIF, all dividend receipts, and contributions from Government corporations. The automatic distribution from the TTF has been excluded due to its size and volatility.

(c) Includes Taiwan grants (until 1998), EU counterpart funds, and the grant to the Meteorological Division.

(d) The automatic distribution from the TTF to the CIF has been isolated form other types of revenue after 1997 because of its size and volatility.

Source: Extracted from Government of Tuvalu (1999, p.4)

Table 3
Summary of Recurrent Expenditure by Head Tuvalu,
1995-1999, \$A

Head	Description	1995 Actual	1996 Actual	1997 Actual	1998 Rev.	1999 Approv.
A	Office of the Governor General	47,068	86,808	64,745	65,775	91,700
B	Office of the Prime Minister	1,208,369	1,142,033	2,062,500	2,477,433	2,933,643
C	Office of the Attorney General	31,573	39,160	34,231	72,133	137,149
D	Parliament	145,813	162,558	172,163	165,169	276,800
E	Office of the Auditor General	74,582	62,593	66,584	75,102	107,400
F	Finance and Economic Planning	600,867	648,274	596,437	914,979	1,018,220
G	Works, Energy, and communications	1,862,289	2,271,990	1,752,417	1,965,180	2,201,430
H	Health, Women, and Community Affairs	866,571	824,818	951,722	1,351,377	1,485,200
I	Natural Resources and Environment	741,544	857,648	770,608	885,123	1,206,535
J	Home Affairs and Rural Development	400,561	463,786	580,113	555,380	645,097
K	Police and Prison Services	415,124	560,274	500,367	486,643	801,934
L	Tourism, Trade and Commerce	-	-	207,122	113,991	162,800
M	Education and Culture	1,437,230	1,814,361	1,802,854	2,202,090	2,843,192
	TOTAL CORE SPENDING	7,831,591	8,934,323	9,561,862	11,330,375	13,911,099
	Special Development Fund Expenditures SD ^(a)					
A	Office of the Governor General	-	-	-	-	-
B	Office of the Prime Minister	-	-	-	921,858	1,651,000
F	Finance and Economic Planning	-	750,000	-	1,179,389	1,197,000
G	Works, Energy and Communications	-	-	-	150,259	460,000
H	Health, Women and Community Affairs	-	-	-	594	10,000
I	Natural Resources and Environment	-	-	-	995,387	358,000
J	Home Affairs and Rural Development	-	-	-	105,236	5,400,000
K	Police and Prison Services	-	-	-	8,267	-
L	Tourism, Trade and Commerce	-	-	-	51,975	30,000
M	Education and Culture	-	-	-	335,471	198,250
	TOTAL SD				3,748,436	9,304,250
	Financial management transactions ^(b)					
4014	Contribution to the Tuvalu Trust Fund	-	1,438,082	3,000,000	6,000,000	1,200,000
	TOTAL OUTFLOW FROM THE CONSOLIDATED	7,831,591	10,372,405	12,561,862	21,078,811	24,415,349

(a) Special development expenditure items are items that are not considered part of the core budget (ie. there is no commitment to a continuation of spending on these items). They are financed through CIF funds in excess of the amount needed for budget stabilisation purposes.

(b) Financial management transactions are strictly outflows from the consolidated fund but they do not affect the level of financial assets.

Source: Extracted from Government of Tuvalu (1999, p.10)

Corporatisation of public enterprises has proceeded slowly but now may accelerate somewhat with the change of Government in 1999. For example, broadcasting and information services (the latter involves mainly printing) will be corporatised in the near future and the Tuvalu Maritime School is expected to be corporatised by mid-2000. Shipping services are also being considered for corporatisation. Although recommended in the ADB(1998) Report, privatisation of public enterprises and undertakings has not occurred. There are significant constraints on such privatisation in mini-economics and those in which the communal ethic is strong as in Tuvalu.

Nevertheless, discussions indicate that increased contracting out by the public service sector has occurred. At the same time, there are some concerns that in a mini-economy it may not result always in increased economic efficiency and may provide scope for overcharging due to lack of competition or favouritism in awarding contracts, especially those that are below the threshold which would require their consideration by the Public Tender Board.

Greater attention is being given to the user-pays principle by public service enterprises. Since the ADB (1998) report, charges by public enterprises have been raised with a view to greater cost recovery. At the same time public enterprises are plagued by bad debts. Both the Tuvalu Telecommunication Corporation and the Tuvalu Electricity Corporation have considerable arrears, as mentioned in the Foreword to the Tuvalu National Budget.

2.4 External Financing and Public Debt

The establishment of the Tuvalu Trust Fund in 1987 reduced the dependence of Tuvalu on the vagaries of overseas aid donors and enhanced the opportunities of Tuvalu to engage in its own long-term planning or management for its economic development. This combined with a cautious attitude to public spending, the addition of new sources of public revenue in the late 1990s, such as Telecom (international) licenses and increased income from fishing licenses in the 1990s has meant that Tuvalu has not accumulated foreign debt or internal debt. As mentioned earlier, some EIB funds were borrowed but

only a small amount and on a basis subject to waiver. Now an external loan will be taken from ADB as a contribution to the Falekaupule Fund. However, if this fund is managed and performs in a similar way to TTF, there is little risk that returns will not exceed the rate of interest payable. Therefore, the assessment of ADB (1998, p.20) of Tuvalu's external financial position will not be changes in its fundamentals. ADB commented:

“Underpinned by aid remittances, and investment income and free of external debt servicing, Tuvalu's external position is sound and possibly less vulnerable to external shocks than that of most small commodity exporters”.

Nevertheless, that position is not unassailable and foreign aid transfers remain a crucial source of Tuvalu's foreign exchange (ADB, 1998, p.19).

2.5 Encouragement of Foreign Direct Investment and External Financial Flows

In 1998, the government instituted an Investment Passports Scheme to encourage foreign direct investment in Tuvalu and to enable managers and investors to reside in Tuvalu to carry out business. The response however, appears to have been much less than expected judging from the large difference in budgeted and actual revised public revenue from the scheme in 1998. A joint retail venture has been established with a Taiwanese entrepreneur but the overall response has been quite limited.

This should be no surprise, given that there do not appear to be too many opportunities for high returns on capital investment in Tuvalu. For this reason most of Tuvalu's own commercial investment is offshore. International investors considering direct investment have many opportunities to choose from so international competition for their funds is intense. In those cases, where significant returns on invested public funds can be obtained in Tuvalu, such as in the National Bank of Tuvalu it is understandable that the government would be reluctant to dispose of its interest to foreign direct investors unless it could obtain a higher return on funds elsewhere.

The Tuvalu Business Centre, which was established in 1998 or thereabouts, apart from providing guidance to local business persons, now provides overall guidance for overseas persons wishing to establish a business in Tuvalu and further guidance is available from

the Ministry of Tourism, Trade and Commerce. Especially given the proximity of relevant organizations in Funafuti obtaining relevant information and guidance for establishing a business should not be a major problem.

2.6 Domestic Finance and Financial Markets

Private financial markets in Tuvalu do not really exist although there are a few money-lenders in Funafuti and it is reported that the Tuvalu Seaman's Union plans to form a credit union. The only commercial bank at present is the National Bank of Tuvalu (NBT) which is a publicly owned corporation. There is no central bank but the National Bank of Tuvalu carries out many of the functions of a central bank such as acting as lender to the government. Its main source of income appears to be from commission on foreign exchange, returns from reserves held in Australia (these are tax free in Australia). Its commercial banking business seems to be less profitable. Fees on accounts are relatively low, and bad debts are a continuing problem in relation to its loans especially in cases where the borrower has gone overseas. The bank is the most profitable of the public sector commercial enterprises (Asian Development Bank, 1998, p.152)

In 1995, the Public Sector Reform Committee of Tuvalu recommended that shares be issued in the NBT "to private investors, including foreign banks , if that is needed to preserve a stable international network" (Asian Development Bank, 1998, p.55). This has not been acted on but is still on occasions considered. Given the particular nature of this bank and the structural constraints of the economy of Tuvalu, the case for privatisation of this bank is not overwhelming. Given that to a considerable extent that it acts as a central bank and that much of its profitability is associated with these operations, the sale is likely to transfer some rental income to private investors. It is unlikely that private investors from Tuvalu as distinct from institutional investors such as the Tuvalu National Provident Fund (TNPF), would be able to subscribe a significant amount of capital and shares. Furthermore, shares are unlikely to be easily marketable given the absence of a stock exchange in Tuvalu. The question should also be asked whether the government would obtain a higher return on funds obtained from the sale of its interest in NBT by investing the funds obtained elsewhere,. However, there may still be scope for increasing the efficiency of the bank's commercial operations.

The Development Bank of Tuvalu (DBT) constitutes the second banking body in Tuvalu. Like most development banks it was intended to provide finance for projects unlikely to receive financial support from the commercial bank because of lack of collateral and risk. In practice, some collateral is normally required by such banks. Also (possibly for political reasons) interest rates are usually more favourable than the market rate. Thus most development banks are in the position where it is very difficult for them to operate profitably. The DBT is no exception. They are often put in a “catch 22 situation”. Their failure to pursue marginal loan projects can lead to criticism that they are not discharging their social functions. Their pursuance of such loans and subsequent losses may, on the other hand, be taken as evidence that they are inefficient. The role and tests of economic performance of development banks need to be reviewed urgently.

The historical background of DBT is set out in ADB (1998, pp.22-23). DBT was established in 1984 to stimulate private sector development in Tuvalu and took over the assets and liability of the Business Development Advisory Bureau (BUDAB) which had been established in 1981 for a similar purpose. This appears to have meant that it also inherited its bad debts. Interest rates of DBT and BUDAB were subsidised by the Government. Extra funding was obtained in 1994 by a loan from the European Investment Bank (EIB), and small grants from the New Zealand Business Development Fund intended merely to provide finance for women’s development projects in the outer islands.

DBT has experienced financial losses mainly due to bad debts. Provision for bad debts in DBT accounts went from 32% in 1993 to 54% in 1996 and discussions with DBT staff indicate that the position has deteriorated further. Extra effort is being made to collect such debts. Although most debts were secured by collateral, it has been reported that field checks on assets were done. Furthermore, loans tended to be made upfront and not staged by progress payments dependent on work completed. So at best in theory a loan for a building (which formed part of the security) could have been used for another purpose. Monitoring on the outer islands was especially difficult – there DBT basically relied on agents.

Given the deteriorating financial position of DBT the previous Government of Tuvalu announced that it intended to merge DBT with NBT or place it under NBT's direct supervision as a division of NBT. Current staff of DBT would not be ensured of a position in the new management and would need to apply for available positions. The move was not welcomed by NBT* and demoralized DBT staff. DBT experienced considerable staff losses as employees sought positions elsewhere. Borrowers also seeing the apparent weakness of DBT became more reluctant than ever to repay their loans. In addition New Zealand Business Development Funds were no longer provided to DBT but to the Tuvalu National Council of Women for distribution. *

As at September, 1999, DBT was in a dysfunctional state due to uncertainty about its future. It is possible that the present government will not proceed to incorporate DBT in NBT.

It seems that DBT is no longer undertaking training in business management and development for its borrowers and potential borrowers. Reliance is being place in the UNDP-sponsored Tuvalu Business Centre (established in 1998) for business training purposes, provision of information for small businesses and guidance to business investors, including potential foreign investors. It provides valuable information about the economics and other aspects of establishing and operating a business. Considerable flexibility exists in the delivery of its programmes – a necessity given the different types of time-constraints facing its potential clients. There's no charge for its services. In fact, lack of a participatory attendance fee (typically \$35 per day) has rankled some government employees who have been requested to attend courses of the centre for basic training. The level and calibre also of some staff sent for training has been below expectation. Nevertheless a few participants have been selected to act as trainers and they will receive a payment when their services are utilized on a casual basis.

* NBT took the position that if they were forced to accept the 'merger' with DBT, a separate division with separate accounts would be established for DBT activities

Some concern has been expressed about the method of assessing the performance of the Tuvalu Business Centre. Apparently the number of business start-ups by those obtaining training through the Centre is taken as an indicator of its performance. However, this indicator is not adequate on its own. Services are also provided to existing businesses. Furthermore, convincing an enterprise which would be bound to fail if it started business may also be an advantage. Performance criteria may need further consideration. In any case, it is rational to have just one organization, such as the Tuvalu Business Centre, providing non-formal business education and supplying business advisory services rather than say the DBT duplicating some of this work.

If DBT continues as an entity, its role should be more carefully defined and performance standards determined with its role in mind. Furthermore, it may be desirable for it (or its successor) to start with a clean slate as far as debts are concerned. Moreover, if DBT is to remain economically viable more attention must be given to the credit worthiness of its customers and checking in field of the provision of collateral. Greater use of a system of progress payments of loans as a project develops may be desirable. It is also difficult to know the extent to which its individual loans have been motivated by political considerations. When credit is subsidized demand usually exceeds supply so defacto rationing of available funds occur.

Provision of micro-finance in Tuvalu faces considerable restraints. The lack of credit unions relying on local community funds may exacerbate this problem. The Tuvalu National Council of Women reports difficulties in managing its micro-finance scheme. Difficulties have been experienced in obtaining loan repayments. The maximum loan is \$500 and have been for small projects such as micro-retailing and small piggeries, jewelry imports for resale and export of patent medicines for resale. It is reported that loan funds are sometimes used for purposes other than that agreed, eg. to meet the costs of a wedding or a funeral, and in such cases securing repayment is often difficult. It is also a problem to check whether clients have multiple loans. Some cases have been taken to the people's lawyer in order to secure repayments. Consideration is being given to a system of group responsibility for loans. Individual loans will still be made but future

loans to a group will depend on satisfactory repayment of loans by members in that group so that in effect a revolving fund is involved.

2.7 Recommendations

- The Tuvalu Trust Fund has proven to be valuable instrument for the economic development of Tuvalu and should continue to be managed in line with existing objectives.
- The Falekaupule Trust Fund (to be discussed later) provides a valuable addition to the TTF and its management can draw on experience with the TTF.
- Nevertheless, Tuvalu remains crucially dependent on overseas aid and remittances to help reduce its resource gap.
- The cautious attitude to public finance adopted by Tuvalu has meant that has avoided economic and financial crises. Given its vulnerable position, its cautious attitude to public finance is justified.
- Tuvalu has been selective in its choice of economic reforms. This is appropriate given that it is a relatively isolated mini-economy and also account must be taken of its customs and culture. While additional benefits can be obtained from further economic reforms, limits to the value of reforms within this context also need to be recognized.
- Currently Tuvalu is virtually free of economic debt. Caution should continue to be exercised in this regard. However, the ADB soft loan intended as a contribution to the Falekaupule Fund does not constitute any significant risk.
- There are significant gaps and problems in financial markets within Tuvalu. The role of the DBT needs to be clarified and the absence of credit unions means that micro-financing is not well catered for. Attention is needed to both these areas.
- Bad debts and arrears constitute a problem for the financial sector in Tuvalu as well as for many commercial enterprises. This appears to be so in most of the countries being investigated. A study of the reasons and means to reduce this problem might have useful policy consequences.

3 SOCIAL ISSUES

3.1 Introduction

Economic and broader social welfare issues are closely intertwined. Factors which improve social welfare very often increase or improve human capital. This is especially so of education and health. But it may also be true of employment opportunities since these often involve on-the-job learning and can contribute to the health and welfare of families and to social stability. Also the opportunities which different families and individuals (distribution of opportunities) and their welfare situation needs to be considered, especially the presence of poverty in its various forms. Hence particular attention will be given to education and health in Tuvalu and to employment. The coverage will include important environmental factors which impact on health, some impacts of economic globalization on health and a brief comment on poverty.

3.2 Education – an Overview

In 1996, Tuvalu spent 18.2% of total recurrent government expenditure on education, a slight rise compared to the earlier part of the 1990s. Of this, almost a half was spent on secondary education, just over a quarter was allocated to primary education and 17% to the Tuvalu Maritime School with the remainder being allotted to general administration of education. Details are given in Table 4.

INSERT TABLE 4

It might be noted that Tuvalu has no technical college. Apart from Tuvalu Maritime School it has a branch of the University of the South Pacific (USP) which caters mainly for foundation courses. Hence opportunities for tertiary education within Tuvalu are quite restricted. Given the small population of the country, it is difficult from an economic viewpoint for the country to support a range of tertiary educational facilities and programmes. Hence many of its tertiary students must study abroad e.g. trainee teachers, which is also costly. Small nations suffer from many economic disadvantages in providing for the tertiary education of their citizens.

Table 4
Recurrent Education Expenditure,
1991-1996, \$A

Year	1991	1992	1993	1994	1995	1996
Government	5349.0	6,283.6	8,379.1	8,152.2	7,826.9	9,219.1
Ministry of H.S and HRD	1,562.7	1,698.3	2,158.4	2,265.1	2,303.8	2,786.7
Department of Education	889.7	986.8	1,264.0	1,346.9	1,346.9	1,675.4
Share of Government Expenditure %	16.6	15.7	15.1	16.5	16.5	18.2
Department of Education by Subsector						
General Administration	57.6	65.2	90.2	61.1	61.1	87.9
% of Education Expenditure	6.5	6.6	7.1	4.5	4.5	5.2
Primary Education	197.4	292.8	390.7	409.6	409.6	449.1
% of Education Expenditure	22.2	29.7	30.9	30.4	30.4	26.8
No. of Primary Students	1,483.0	1,416.0	1,648.0	1,697.0	1,697.0	1,788.0
Unit Costs of Secondary Education (\$)	133.0	207.0	237.0	241.0	241.0	251.0
Secondary Education	373.4	405.6	478.5	563.2	613.9	836.0
% of Education Expenditure	42.0	41.1	37.9	41.8	46.6	49.9
No. of Secondary Students (Motufoua H S)	318.0	297.0	250.0	321.0	415.0	424.0
Unit Cost of Secondary Education (\$)	1,174.0	1,366.0	1,914.0	1,755.0	1,479.0	1,972.0
Tuvalu Maritime School	254.1	214.3	290.9	287.6	224.6	286.0
% of Education Expenditure	28.6	21.7	23.0	21.4	17.1	17.1
No. of TMS Students (approx. FTE)	70.0	75.0	80.0	80.0	90.0	100.0
Unit Cost of TMS Education	3,630.0	2,857.0	3,636.0	3,595.0	2,496.0	2,860.0
Library and Archives	7.3	8.8	13.7	25.4	21.1	16.4
% of Education Expenditure	0.8	0.9	1.1	1.9	1.6	1.0

Source: Central Statistics Division, GOT, and ADB (1998, prior)

There does, however, appear to be scope for the further development of the tertiary education sector in Tuvalu taking in to account local demand, possibilities for employment abroad and provision of export services via the internet. Already a private firm in Funafuti provides secretarial training, including computer-use training in Funafuti, and its graduates are in demand especially in the public service. A well-focussed technical and higher education college development could give positive returns. It might be best located in Funafuti on the site of the old government secondary school. Many of its students would already be in employment in Funafuti and might attend part-time. Vaitupu was suggested as a possible site in ADB (1998) but this fails to take account of the location of most individuals who may wish to enrol. Similarly, Amatuku was suggested as an alternative location where it might be combined with the Tuvalu Maritime School. Location and other reasons however suggest that this would be a less suitable choice in the long term than the Funafuti location suggested above.

Care might be taken in planning such a college not to crowd out private suppliers of educational services where these adequately meet needs. For example, current suppliers may be encouraged to provide services to the technical college on a contract basis.

In Kiribati, the Institute of Technical and Higher Education provides courses in intensive mode (and by flexible delivery) to upgrade the qualifications of teachers. Lecturers are flown in from Fiji for a series of short periods to supply these courses. For some courses, this is the most economical method of provision. Tuvalu has a need to upgrade the qualifications of its teachers and presumably those of many of its public servants and a well designed technical college can provide strategic assistance with this. Improved training in the trades will have local benefits as well as increase opportunities for 'guest' work abroad.

There may be scope to establish a branch or branches of the proposed Tuvalu technical college, or institute of technical and higher education at an early stage on some other islands, especially Vaitupu, where agriculture could be a focus. But scope for economically establishing branches is likely to be limited.

Technical education in Tuvalu needs to be developed taking into account likely market demand for trainees. Market requirements should be a prime consideration. Tuvalu is the only country in this review without technical college facilities and it seems appropriate that serious plans be drawn up and evaluated for the development of such facilities. The development will require foreign aid.

3.3 School Education

The adult literacy rate of Tuvalu is reported by the UNDP (1999, p.105) to be 95%, just below that of Samoa. But combined gross school enrolments are only 74% for males and 75% for females in Tuvalu, a percentage significantly less than in Samoa. While gross primary enrolments (5-14 years age group) are 88% they fall sharply away at secondary level (15-19 years of age group) to 34% (UNDP, 1999, p.110). The comparable figures for Samoa are respectively 94% and 70%. At around 18% of the governments recurrent budget, public spending on education in Tuvalu accounts for a similar percentage of Tuvalu's budget as in Kiribati (UNDP, 1999, p.101).

The structure of school education in Tuvalu is outlined in ADB (1998, Ch.5). There are several registered pre-schools operated by local community groups with some government financial assistance. It seems that staff have little or no training. This might be rectified by short courses through USP's Extension Centre or through and Institute of Technical and Higher Education, should it be established.

The majority of primary school education is government supplied although the Seventh-day Adventist Church school on Funafuti also provides eight years of compulsory basic education. Education in government schools is free at primary and junior-secondary level (Forms 1 and 2). There are two higher level secondary education schools in Tuvalu viz., the Government Motufoua High School located on the island of Vaitupu and the Fetuvalu High School on Funafuti operated by the Congregational Church of Tuvalu. The former is a boarding school. Its fees are \$100 per term and the parents must provide uniforms. If

a family has more than two children attending, fees for extra children are usually waived. The may also be waived in case of financial difficulty.

Transport between Vaitupu, Fanufuti and the other islands is by *Nivagea II* and is far from reliable. This can for example result in classes commencing late, as was recently so (Sept. 1999) due to the delayed return of *Nivagea II* to Tuvalu from Fiji.

While no government assistance is provided to the Seventh Day Adventist primary school, some is provided to Fetuvalu High School.

Teaching materials such as textbooks and printed material seem to be in short supply in schools at all levels. Very little material in the Tuvaluan language (similar to Samoan) is available. It is also reported that classroom furniture is in short supply and that in many primary schools children must sit on the floor. In primary schools, the inspector of schools indicated that more than a quarter of the teachers are not adequately trained. There is a need to improve the training of teachers at all levels. Too many teachers are at present 'untrained'.

Shortage of qualified staff is said to be a continuing problem. At the administration level it has been impossible to fill positions required for curriculum development and planning. An area has been allotted at the old secondary building in Funafuti for the curriculum group but there are no staff.

ADB (1998) claims that the quality of school education in Tuvalu has declined in recent years. This may partly be a consequence of attempting to extend the extent of participation in education using inadequate resources. Hence, available educational resources may have become spread more thinly. The Education for Life (EFL) programme of Tuvalu (as for example, outlined in *Kakeego*) aims amongst other things to increase the number of years of compulsory schooling to 10. The number of years of compulsory schooling was increased to 8 in the late 1980s which necessitated Forms 1 and 2 of secondary education being introduced at existing primary schools in the early

1990s, even though a lack of adequately trained and experienced staff existed at this level. ADB (1998, pp.106-107) observes that:

“In confirmation of a quality decline at primary level, the biggest problem identified by the principals of secondary schools was the lack of literacy and numeracy of students entering Form 3 with problems in the primary schools being compounded by the inexperience of primary school teachers in teaching forms 1 and 2. Secondary schools have introduced remedial teaching to cope with the problem, but there is concern that standards may drop more as secondary education is further expanded

ADB (1998, p.108) also notes that financial strains on the public purse are likely to rise if the number of years of free access to public education is further expanded.

The fact that the population of Tuvalu is distributed across nine widely scattered islands poorly served by inter-island transport adversely impacts on the economics of supplying school facilities in Tuvalu. Even with two high schools for the whole of Tuvalu, economies of scale cannot be fully realized. In the future, however, electronic communications may make it more economic to supply education at remote locations.

3.4 Tertiary Education

Currently Tuvalu must send most of its students abroad who require specialised tertiary education. With its small population it can only support a limited range of offerings in tertiary education. The Tuvalu Maritime School (TMS) is the main tertiary institution in the country. A branch of USP exists but it mainly concentrates on foundation courses.

TMS is financed by the government and provides training for merchant seamen who are mainly employed by German shipping lines. The remittances of Tuvalu's merchant seamen provide an important source of income, foreign exchange and employment for the country. ADB (1998) reports, however, that it is becoming more difficult for graduates to find employment. It reports problems in maintaining standards. These problems are now being addressed.

In addition, competition for employment of merchant seamen is global and relatively intense. For example, Tuvalu faces competition from China, Pakistan and the Philippines. This has resulted in Kiribati and Tuvalu restraining the asking wages of its seamen.

Demand for seamen may be increased by improving the recognized quality of trading and possibly by more positive marketing and promotion by the agents in Tuvalu of which there are said to be only two.

At the same time, Tuvalu needs to explore global markets for blue-collar and related workers and to see if it can establish a technical college able to train Tuvaluans to help meet this demand. The possibility of the strategy was discussed above.

Education serves many functions. One of these is to train individuals who wish to obtain cash employment. Educational offerings must be developed with market demand for labour an uppermost consideration.

The government intends to corporatise TMS by the middle of 2000 and to introduce fees. Students will be able to finance their fees through a loan system; loans being repayable from income after employment. Some technical college courses could be financed in a similar manner.

3.5 Employment

Employment necessarily raises many social issues. In Tuvalu, opportunities for cash employment are limited. From UNDP (1999, p.111), it can be deduced that only a little over one-third of adults are working. It is reported that 14% of adults are in government employment, 10% in private employment and 13% engage in subsistence agriculture. Those in cash employment often support several members of an extended family. Possibilities for cash employment are very restricted in the outer islands compared to Fanufuti and considerable immigration to Fanufuti occurs in search of cash employment. This leads to overcrowding on Fanufuti and in some cases the building of 'shanties'.

Table 5 provides information on cash employment in Tuvalu in the period 1988-1998. From this it can be seen that employment in the core Government sector has declined since its peak in 1992. Employment in public corporations has shown a decline since 1996. Private employment has shown a significant upturn since 1995. In 1998 the amount of employment in the private sector was comparable to that in the government sector. The predominance of the public sector as an employer compared to the private sector significantly declined in the latter part of the 1990s compared to the earlier period. Nevertheless spending injections provided by the public sector clearly remain a major stimulus for employment in the private sector.

INSERT TABLE 5

From Table 6, it can be seen that the percentage of Tuvalu's population in cash employment has fluctuated during the 1990s around 14-15%. This means on average that everyone in employment has to meet the cash requirements of almost 7 persons. While the percentage of Tuvalu's population engaged in cash employment has remained relatively static throughout the 1990s, the percentage of its adult population in cash employment has risen significantly since the 1970s (cf. ADB, 1998, p.12).

INSERT TABLE 6

Insufficient data exists on unemployment and underemployment in Tuvalu. Presumably the unemployed and under employed are assisted by their extended family. Limited data is available on poverty, income inequality and differences in economic opportunity. While a Human Poverty Index (HPI) has been estimated for Tuvalu (UNDP, 1999, p.112) this index pays little attention to the presence of economic deprivation as such. At 7.3 for Tuvalu it is relatively low as for example compared to Solomon Islands on 49.1. However, it should be stressed that HPI is subjective in the choice of variables which it takes into account. This choice appears to be heavily influenced by the availability of data.

Table 5
Numbers in Cash Employment by Employing Sector,
Tuvalu, 1988-1998

Year	Govt.	Public Corporations	Total Public Sector ^a	Private	TOTAL
1988	731	141	872 (67)	420	1,292
1989	697	139	836 (67)	404	1,240
1990	724	142	866 (68)	425	1,281
1991	672	160	832 (65)	444	1,276
1992	770	171	941 (66)	482	1,423
1993	726	169	895 (72)	353	1,248
1994	736	220	956 (73)	358	1,314
1995	644	270	914 (70)	387	1,301
1996	673	281	958 (66)	506	1,460
1997	650	275	925 (62)	568	1,493
1998	672	229	901 (57)	687	1,588

Note: ^aPublic sector employment as a percentage of total cash employment shown in brackets.

Source: Based on ADB (1998, Table 2.3, p.13) and extra data supplied by the Tuvalu National Provident Fund

Table 6

**Estimated Population of Tuvalu, Numbers in Cash Employment and
Percentage of Total Population in Cash Employment 1991-1998**

Year	Population	Numbers in Cash Employment	Percentage of population in cash employment
1991	9,041	1,276	14.1
1992	9,002	1,423	15.8
1993	9,995	1,248	13.9
1994	9,509	1,314	13.8
1995	9,221	1,301	14.1
1996	9,592	1,460	15.2
1997	10,249	1,493	14.5
1998	10,371	1,588	15.3

Sources: Population estimates from the advisor to Tuvalu Statistics Office. Numbers in cash employment from Table 5.

3.6 Health

In trying to provide adequate health services, Tuvalu is disadvantaged by being an isolated micro-state fragmented in to several scattered islands with poor inter-island transport. Furthermore, Tuvalu's isolation means that it is costly and difficult to access the health services of other countries. Its small population means that economies of scale and specialisation in the provision of medical services cannot be obtained. This is further compounded by its population being distributed across nine islands with transport to Funafuti or a central point being slow and infrequent. Except for emergencies inter-island transport relies on the *Nivagea II* the service if which is irregular and which can take 2-3 weeks to reach Funafuti from an outer island. There are no inter-island plane services.

Tuvalu is served by one hospital, the Princess Margaret Hospital, located in Funafuti. The outer islands are served by health clinics staffed by nurses. Doctors rarely visit the outer islands given the inadequacy of transport. Minor operations are performed by nurses in the outer islands who also receive advice by phone from doctors at the Princess Margaret Hospital as required. Patients whom nurses are unable to treat are referred to the Princess Margaret Hospital.

Statistics indicate that in terms of population per doctor and particularly population per nurse the situation of Tuvalu is more favourable than in Fiji (UNDP, 1999, p.106). But for the reasons given above, such statistics can be very misleading.

Life expectancy at birth is 67 years in Tuvalu which is relatively high by Pacific island standards but only 9.8% of its people are expected to survive to age 40 mainly because Tuvalu's infant mortality rate is very high (59 per 1000 live births), higher for instance than that of the Solomon Islands but not as high as that of Kiribati. The reasons for Tuvalu's high infant mortality rate is unclear but in some of the Pacific islands infanticide has been practiced as a population control measure. Considerable effort is made by nurses through the health clinics to make mothers aware of appropriate health care practices. One of the doctors at the Princess Margaret Hospital suggested that there has been a

reduction in breast-feeding because of the presence of mothers in the workforce. This can result in a higher rate of infection in infants.

“The major causes of mortality in Tuvalu continues to be infectious diseases, including diarrhea, acute respiratory infections, eye infections, tuberculosis, pneumonia and skin problems” (ADB,1998, p.115). In Funafuti the incidence of these diseases is increased by overcrowding. Life-style non-communicable diseases are on the increase as diet and patterns of exercise alter for example.

As recommended by WHO for Samoa, ADB (1998, p.124) recommends a change in the relative allocation of health funding from curative to preventative medicine. The scope for this in Tuvalu is uncertain. Tuvalu is already giving considerable attention to health education, especially as far as the prevention of AIDS is concerned. Medical facilities in Tuvalu seem to be relatively basic. Diagnostic equipment for example is in short supply at the Princess Margaret Hospital. In September 1999, no facilities existed for example for completing sputum tests for tuberculosis. Such tests are important to locate carriers and reduce the possibility of new infections.

Lack of maintenance at the hospital is a problem. Water was in short supply in September 1999 at that hospital, mainly its seems because attention had not been given to leaks in gutters and storage facilities.

The relative allocation from the government recurrent budget for health of about 9.4% is one of the lowest amongst the five poor Pacific nations being reviewed here. Health services are free. There is a reluctance to charge for such services given the communal nature of Tuvalu. Payment by those requiring health care is a result of foolhardy behaviour (for instance, alcohol abuse associated with fighting or traffic accidents) is now on the books but so far has not been enforced. Arguments for and against the payment of medical fees are similar to those discussed in the case of Samoa. The same also applies to the possible introduction of health insurance schemes.

Increased contracting out of some services associated with health has occurred. For instance, repainting of some sections of the Princess Margaret Hospital is occurring on a contract basis.

In a small country, such as Tuvalu, it often turns out that contracting companies or firms are closely associated with the families of public servants or politicians. This makes it especially difficult for contracts to be let on an impartial basis or with an appearance of impartiality.

Since the ADB (1998) report, no substantial increase in cost recovery in the health system has occurred. A small start appears to have been made on raising efficiency by engaging in more contracting out of maintenance services. Performance and output budgeting is being introduced in the health sector as another means to increase efficiency.

3.7 Regional Development, Centralisation and the Falekaupule Fund (The Outer Island Development Fund)

There has been a substantial drift of the population of Tuvalu from the outer islands to the capital, Funafuti. This has partly been motivated by the greater opportunities for cash employment in Funafuti plus easier access to the modern amenities of life. This influx to Funafuti contributes to crowding there and to associated environmental problems. The government has tried to counteract the trend by locating the main offices and activities of two government departments (Agriculture and Education) at Vaitupu. But population movement to Funafuti continues.

Urbanisation and concentration of population at central places seems to be a natural tendency in modern development. Economies often result from this process but it does require greater attention to be given by the community to alleviating possible adverse environmental impacts from concentration of population at central places. Up to a point, it may be best to accept this pattern of change and adopt measures to counteract its environmental impacts. At the same time, policy measures may be possible to make

living in the outer islands more attractive. In this regard, the Falekaupule Trust Fund (Outer Island Development Fund) is an important initiative.

The Falekaupule Trust Fund (FTF) was established on 31 July 1999 as a result of a direct grant from the Government of Tuvalu and initial contributions from the eight Falekaupule (councils of chiefs or elders) representing the islands of Tuvalu. The government contributed \$4m and the councils about \$1.3m. An additional \$4m is to be contributed from a loan from the ADB. In 2000, a further grant of \$2m is to be made by the government of Tuvalu and an additional \$2m will be contributed from a further loan from the ADB. This will bring the Fund to \$13.3m. Provision is also made for further voluntary contributions by the Falekaupule.

The Fund is to be managed in a similar way to the TTF. The aim will be to try to maintain the real capital value of the FTF and use income earned above that which needs to be reinvested for that purpose for the benefit of the island communities. The Falekaupule are to be the trustees of the Fund. Returns available for distribution will be distributed in proportion to Falekaupule contributions. While this was intended as an incentive to have the islands contribute to the Fund, an economically disadvantaged island may find it difficult to contribute funds and continue to be disadvantaged.

According to the deed establishing the FTF, it is “for the island communities of Tuvalu for the charitable purpose of:

- (1) assisting the acquisition and development of skills and self-reliance in the communities through local training;
- (2) enabling the communities to acquire, maintain and improve community assets and resources in order to further education and self-reliance;
- (3) funding community projects that improve the living conditions of the communities, and;
- (4) Increasing the ability to generate revenue within the community for the good of the community”.

The purpose of FTF appears to be quite wide. Only after the FTF has been in operation for some time will it be possible to determine the type of development projects obtaining support.

The Fund will ensure participation in development decisions by island communities and combines elements of decentralisation with political unity. Also a long-term development perspective is encouraged though the recommendation that the real value of FTF (its contributed capital) be maintained. Development is to be funded from returns not capital. The Falekaupule contributions enhance the sense of ownership and responsibility of island communities. FTF may prove to be a suitable model for other archepalagic developing countries, such as Kiribati, to emulate.

3.8 Recommendations

- In extending educational opportunities in Tuvalu care must be taken not to reduce the performance (quality) of gifted students. This along with the financial costs involved, suggests that increasing the school leaving age (extending further the number of years of compulsory schooling) should not be a high priority.
- Increasing the quality of education already given seems to be an urgent requirement. Some of the 'needs' have been specified. Overseas aid is required to assist with this.
- There appears to be an urgent requirement in Tuvalu for a technical college or a technical and higher education institute both to meet local requirements and to provide further opportunities for employment of Tuvaluans overseas. Courses should take account of market potential.
- The Tuvalu Maritime School provides skills which enable many Tuvaluans to obtain employment as merchant seamen with overseas shipping lines. In turn, they contribute to foreign exchange earnings by Tuvalu and make a significant positive contribution to Tuvalu's Balance of Payments. But it is difficult for TMS to maintain standards. Attention is being given to this matter. Corporatisation may assist. But overseas aid is likely to be still required, especially if innovations in shipping are to be covered fully. The employment of merchant seamen is globally competitive and agents in Tuvalu may need to pay greater attention to marketing. Also Tuvalu may

find it advisable to diversify its input of skilled labour into other industries. The proposed institute of technical and higher education should be developed with this in mind.

- Tuvalu faces many natural disadvantages in the provision of educational services because of its small population and the distribution of its population over nine scattered islands.
- Cash employment opportunities within Tuvalu are extremely limited. Each person in cash employment must meet the cash needs of almost seven persons on average. Because opportunities for expanding cash employment in Tuvalu are limited, it is imperative that its workforce be adequately trained and seek job opportunities outside Tuvalu. This requires also that developing countries be less restrictive in their willingness to accept 'guest' workers and migrants from Tuvalu.
- Most direct cash employment is in the public sector. However, since 1993 the importance of the public sector as an employer has declined markedly. In 1993, it accounted for 73% of cash employment but by 1998 this had declined to 57%. While there may be scope for further expanding employment in the private sector, there is little prospect of the private sector becoming the driving force of the economy in the near future.
- Insufficient information is available about unemployment and underemployment in Tuvalu, about labour markets generally and about poverty and the distribution of economic deprivation.
- The economies of provision of health services are adversely affected by the small population of Tuvalu and its distribution over nine scattered islands served by inadequate transport facilities.
- Facilities at Princess Margaret Hospital are limited and maintenance is a problem.
- There is scope for improving health by improving environmental conditions.
- It is not clear how much scope exists for beneficially redistributing further funds from curative to preventative medicine. Tuvalu seems relatively active in the latter respect as far as health education is concerned.
- A cautious approach to user-pays and to compulsory health insurance schemes linked to NPF payments may, as in the Samoan case, be wise.

- Measures to increase cost effectiveness in delivery of health services should continue to be pursued.
- The Falekaupule Trust Fund opens up new economic opportunities for island communities and may help to stem the population drift to Funafuti. New cash employment opportunities are likely to be created on the outer islands as a consequence of the Fund. The Fund could provide a model to be emulated by other developing countries wishing to address regional development on a sustainable basis.

4 TRADE AND TUVALU'S EXTERNAL BALANCE

4.1 Overview

Tuvalu has a substantial deficit in its balance of trade in goods and in services but this is more than outweighed by a surplus or income received from abroad plus transfers (see Table 7). Except for small deficits on its current account in the late 1980s, Tuvalu has had a surplus on its current account since 1985. Overall Tuvalu has had a slight surplus in its balance of payments and has increased the size of its external reserves to some extent since the mid-1980s. External balance has been maintained despite the variable and uncertain nature of much of its foreign income.

INSERT TABLE 7

Exports of goods by Tuvalu are negligible. They consist mainly of philatelic sales and bunkering. Exports of other goods, such as copra, have declined to become relatively insignificant. On the other hand, imports of goods are a major item. About half of such imports consist of food, beverage and tobacco, fuel and manufactures (consumer durables). In 1996, imports amounted to about 37% of GDP and the Tuvalu's trade deficit to almost 33% of GDP. In addition, as can be seen from Table 7 a significant deficit occurs in relation to services. When this is added to the trade deficit, the combined deficit increases substantially. In 1996, this combined external deficit amounted to over 60% of GDP. It should not be surprising that a small country with little diversity of resources has a high propensity to import.

Table 7
Preliminary External Balance Statistics for Tuvalu,
1996-1998, \$A

	1996	1997	1998
Current Account Balance	8,435	14,161	8,973
Goods- Balance	-5,503	-7,833	-12,712
Exports fob	754	638	619
Exports through banks records	309	103	110
Philatelic sales	190	276	247
Bunkering	254	258	262
Imports fob	6,256	8,471	13,331
Services – balance	-5,306	-5,425	-8,389
Receipts	1,529	1,757	1,610
Transportation	218	124	225
Travel	574	642	658
Communication	241	464	172
Business services	496	527	555
Payments	6,835	7,183	9,999
Transportation	3,175	3,391	4,635
Travel	1,440	1,941	3,366
Communication	214	213	335
Technical Assistance ¹	1,575	1,159	1,136
Government services	212	216	235
Other services	219	263	292
Income - balance	3,347	4,060	4,910
Receipts	3,561	4,266	5,242
Compensation of employees	2,282	2,270	3,703
Investment Income	1,280	1,546	1,540
Payments	214	206	332
Investment Income	214	206	332
Transfers	15,896	23,359	25,164
Receipts	17,688	24,822	26,938
Official Foreign Aid	15,092	11,707	4,726
Transfers from Tuvalu Trust Fund A Account	180	3,893	11,100
Government license fees and transfers	969	7,243	9,430
Private transfers	1,447	1,979	1,682
Payments	1,793	1,463	1,775
Government	215	206	350
Private transfers	1,578	1,257	1,425
Official Reserve Assets	34,092	38,699	38,174
Memorandum Item			
Funds held in the A Account of the Tuvalu Trust Fund	51,451	59,916	59,464

¹ Represents foreign aid in the form of advisors and other technical assistance services paid for directly by donors.

Source: Personal communication, Office of Statistics, Funafuti

The external payments situation of Tuvalu would be unsustainable except that it has a positive balance on its income account and on its transfer account. Compensation payments to employees such as merchant seamen working abroad, and a substantial surplus is recorded on investment income.

Official foreign aid makes a large but highly variable contribution to Tuvalu's transfers. The same is true of the transfers of surplus funds from the Tuvalu Trust Fund A Account. In addition, government license fees and transfers are an important but again are a highly variable contribution to receipts of foreign exchange. The amount received from such fees is very volatile on account of variation in income from fishing licenses. This income varies with seasonal conditions. On the other hand, fees for access to telecommunication lines are relatively stable.

Private transfers (remittances) are relatively stable and amount to two to three times the value of exports. However, there are also considerable private transfers paid out e.g. to help finance education of dependents abroad. In 1997 and 1998, the net balance of these transfers was positive.

It has not been the strategy of Tuvalu to diversify or promote its exports, except philatelic sales but rather to concentrate on receipts from employment of its nationals abroad and receipts from transfers. Given the disadvantages of Tuvalu in exports of physical commodities this seems to be a rational strategy.

There may be greater scope for Tuvalu:

- (1) to make greater use of its telecommunication facilities to export services e.g. secretarial or related services using computer facilities, and
- (2) to diversify the range of skilled and semi-skilled workers which it sends abroad for temporary or permanent employment (see my comments regarding an institute of technical and higher education).

The scope of Tuvalu to increase and further diversify transfer payments is less clear. However, Tuvalu is continuing to explore possibilities related to rights to use electronic media. For example, Tuvalu has been assigned the code 'tv' for electronic addresses and this may result in some trade possibilities. Discussions for example are reported to be in progress with MGM in this regard.

The official reserve assets of Tuvalu exceed more than twice its GDP and would be sufficient to cover its combined deficit on goods plus services for almost two years given 1998 estimates.

Tuvalu has a sound position in relation to its external balance. At the same time, its external balance is precarious given the volatility of its major sources of transfer receipts.

It was noted earlier that import duties account for a high proportion of Tuvalu's taxation in receipts. These duties are not intended as a protection to local industry but as a public revenue source. Lowering these duties would probably do little to stimulate Tuvalu's exports. Expansion of the taxation base by introducing a value added tax may have little to recommend it in Tuvalu's case. Considerable transaction costs may be involved in the collection of such a tax which may do little to restructure Tuvalu's economy. However, there is a general expectation that in a Pacific free trade area that this would be done. Authorities in Tuvalu are aware of the pressure for such change. However, in the case of Tuvalu (and Kiribati) applying such a blanket rule does not seem rational.

4.2 Recommendations

- Tuvalu should try to diversify the type of labour which it 'exports' on a guest or permanent basis.
- It would be assisted greatly if more developed countries increased their willingness to accept Tuvaluan migrants either on a temporary or permanent basis.
- Tuvalu should explore possibilities for increasing its export of services, e.g. via electronic media. It would be worthwhile considering the niches which some other small island nation states have been able to fill.

- It needs to remain active in maintaining levels of existing transfer payments including foreign aid (on which it remains heavily dependent) and exploring new possibilities for rental income.
- The tourism potential of Tuvalu remains largely untapped but irregular and relatively expensive airline flights to Tuvalu may restrict foreign visitors to those on official business or the adventurous. Inadequate transport remains an impediment to Tuvalu's economic growth. The number of holiday/recreational visitors to Tuvalu is extremely small. It varied between 137-272 persons per year in the period 1991-1995 (ADB, 1998, p.84). An in-depth study of tourism development possibilities for Tuvalu could be worthwhile.

5 INFRASTRUCTURE

5.1 Overview

The fragmented geographical nature of Tuvalu combined with its least developed country status has resulted in many inadequacies in Tuvalu's infrastructure. This problem has already been noted in relation to the provision of educational and health facilities. It is acute in relation to transport.

In relation too air transport, Funafuti's only air link at present is with Suva and Funafuti has the only airport in Tuvalu, although disused World War II airfields exist on two islands other than Funafuti. Funafuti airport is sealed but only capable of taking light aircraft. It has no night landing facilities.

The airport is unfenced and used as a ground transport link when aircraft are not using it. A siren is sounded before arrival of aircraft and prior to take-off to make sure that the airfield is cleared of vehicles and people. In addition, an airport vehicle scouts the perimeter of the airfield. The air service to Funafuti is provided by Air Fiji under an agreement with the Government of Tuvalu. The service is highly irregular in its timetable and passenger fares are considered to be expensive. It appears that little or no competition exists between airlines to provide the air service to Tuvalu. A virtual monopoly therefore exists.

The air service had previously been supplied by Air Marshall which flew from Fiji to Kiribati and the Marshall Islands and return but was discontinued presumably due to financial difficulties. The loss of this carrier means that Tuvalu no longer has direct flights to Kiribati and easy access to countries in the northern Pacific.

The air transport situation poses a difficult problem for the government of Tuvalu. In all probability Tuvalu would not find it profitable to operate a national airline and competition does not appear to exist between airlines to supply its air services.. Some of its islands would undoubtedly benefit by restoration of their WWII airfields and provision of air services to Funafuti but this is unlikely to be economical. In Kiribati, Air Kiribati which mainly supplies inter-island air services has accumulated considerable losses.

Inter-island transport in Tuvalu is dependent on one relatively old vessel the *Nivagea II* operated by the Department of Works. It takes several weeks to complete the round of Tuvalu's islands and carries passengers and freight. Services are sometimes suspended for a considerable time-period when the vessel visits Fiji for maintenance and repairs. On its return from Fiji it carries passengers and cargo. However, freight is usually carried from Fiji by a private shipping line which also serves Tokelau. Deliveries occur approximately monthly.

Apart from Funafuti's only Vaitupu has a harbour. On all the other islands, unloading into smaller vessels must be done at sea which adds to costs and to the uncertainty of operations. Storage facilities on most of the islands, including Funafuti, are considered to be inadequate (ADB, 1998).

While the shipping route north of Funafuti could (it is suggested by the Department of Works) operate at a profit, the southern route, because of small freight volumes, is unlikely to operate at a profit. If the shipping line were to be corporatised or privatised the southern route would need to be subsidised. Corporatisation is being given serious consideration and there is some interest in the Fijian system of tendering for shipping

routes. It is also suggested that the southern route would be more profitable it could be extended to Rotuma (Fiji).

Inter-island transport services would be much improved if a second smaller and faster boat carrying mainly passengers and non-bulky freight was available. Serious consideration is being given to this possibility. It would improve access to health and educational services on the outer islands for situation in which inter-island transport is necessary. There would be less need to charter boats such as fishing boats for urgent medical transport. The economics of operating such a vessel are said to be promising.

Although the land area of Tuvalu is small it does have need for road transport especially on Funafuti which is narrow but several kilometres long. A similar situation exists on some of the other islands. The roads in Funafuti are in a bad state of repair, dusty and potholed. This has the advantage of slowing the speed of traffic but creates very dusty conditions in the surrounds. Due to the shortage of space, houses abutt the roads. The dust adds to cleaning costs and possibly the particulate matter is adverse to human health, especially given the high incidence of respiratory disease in Tuvalu. Sealing and adequate maintenance of roads in Funafuti would seem to be highly desirable.

Electricity in Funafuti is supplied by the Tuvalu Energy Corporation, a public enterprise. It is supplied by oil powered generators and costs are heavily dependent on the price of oil. ADB (1998) found that the price of electricity in Tuvalu was comparable to that in Kiribati and was in the medium price range for the Pacific islands. While electricity is available throughout Funafuti, it is not widely available on the outer islands. While the majority of homes in Funafuti appear to be supplied with electricity, not all are e.g. shanties built recently by immigrants from the outer islands. Further in-depth study is needed on electricity and energy supplies in Tuvalu.

Funafuti is well served by telecommunications but in September 1999 did not yet have email facilities although it was planned to have these facilities operating earlier. It is

hoped to have email facilities operational in the near future. Communication dishes have been installed on the outer islands to facilitate inter-island communications.

Tuvalu Telecommunications Corporation (TTC) operates telecommunication facilities. ADB (1998, p.48) found that telephone tariffs were far too low in Tuvalu to enable operating costs to be recovered and recommended major increases. TTC was operating at a considerable loss. Tariffs have now been substantially increased and this should improve the profitability of TTC. However, as mentioned earlier, outstanding debts constitute a problem for TTC and for the Tuvalu Power Corporation.

Potable water is a scarce commodity in Funafuti and the whole of Tuvalu suffers from periodic droughts. Reliance for clean water is mainly on catchment from roofs with storage in tanks. Public buildings and large buildings provide surplus supplies which can be distributed to households by truck if required. Poor maintenance on some of the gutters and downpipes and tanks reduces storage e.g. Princess Margaret Hospital. A severe water shortage existed in September in Funafuti and a desalinization plant was being installed with Japanese assistance to supplement supplies.

In Funafuti, sewage is mainly disposed of in septic tanks. This can pollute the underground water and result in seepage of nitrogen and phosphorous to the lagoon which encourages weed and algal growth. Composting toilets could be an environmentally safer solution, especially if the compost would be used in garden pits. In addition, flushing of septic tanks requires 'fresh' water use. The use of saline water can interfere with decomposition processes.

The building stock in Funafuti is of varied quality. Some government bodies are housed in tin sheds. Most buildings are of light construction and relatively crowded with staff. Houses are mostly of fibro with steel roofs and are quite crowded.. Shanties are built of assorted materials. Disposal of solid wastes and polluting substances would constitute a problem in Funafuti but was not investigated during my visit. Overall, it is clear that a

high priority should be given to environmental factors in Funafuti from at least health and sustainability perspectives.

5.2 Recommendations

- There is a need to ensure a more reliable (punctual) air service for Tuvalu and to reduce fares. Reliability could be more important than frequency of flights particularly as far as tourists are concerned. The air service is in a unsettled state with direct connections to Pacific island nations other than Fiji now impossible.
- Inter-island shipping transport needs to be more frequent. The acquisition of a n additional smaller an faster vessel than the *Nivagea II*, as discussed seems desirable. The *Nivagea II* is also becoming older and more difficult to insure.
- Funafuti is well served by electricity and telecommunication services. However, blackouts or power shedding does occur in Funafuti for about 1 hour per day on weekdays. The delay in provision of email facilities in Tuvalu is unfortunate. Email could provide additional commercial or employment opportunities for Tuvalu. On the outer islands access to electricity and telecommunications appears to be limited.
- Road works are urgently required in Funafuti.
- Although electricity and telephone tariffs have been raised to bring about cost recovery, outstanding debts are now a major problem and more effort is required to collect debts.
- Shortages of fresh water, environmental problems involved in disposing of sewage and solid wastes are serious problems in Funafuti and need to be addressed on a long-term basis. Some of the outer islands are also experiencing water shortages.

6 CONCLUDING REMARKS

Despite severe natural obstacles, Tuvalu managed to increase its GDP per capita significantly in the 1990s compared to the 1980s. A vital contributor to the development of Tuvalu has been the presence of the Tuvalu Trust Fund which has operated both as a fiscal-stabilizer and a as an investment portfolio to underpin economic growth. It has recently been supplemented by another somewhat similar fund, the Falekaupule Trust Fund, a fund designed to assist outer island development.

Governments of Tuvalu have pursued careful strategies in their management of public finance and have significantly increased the size of the Tuvalu Trust Fund by ploughback of returns plus additions from windfall public gains, such as larger than anticipated royalties from sale of fishing rights in the 1990s. Given the relatively strong economic position of Tuvalu (even though it is undoubtedly a highly disadvantaged nation in terms of its resources), Tuvalu has not been forced to undertake economic reforms as a part of crisis management. Nevertheless, it has gradually and selectively commenced economic reforms. Reforms include corporatisation of public utilities and some other government activities, performance budgeting and accounting in the public service, greater attention to cost recovery via fees by public utilities and some increase in contracting out of government services. Privatisation of many public undertakings in Tuvalu has proven to be impractical or is considered unlikely by many administrators to result in an economic advantage. There are also limits to the economic advantages of contracting out public business in such a small economy.

Exports of merchandise contribute extremely little to the foreign exchange of Tuvalu. It has little potential for exporting physical commodities. It relies heavily on returns from its overseas portfolio investments, incomes from its nationals employed abroad, rental income (fishing royalties, telecommunication access fees), private remittances and foreign aid to finance its overseas payment and boost domestic incomes.

The scattered archipelagic nature of Tuvalu contributes to the poor state of its economic infrastructure, restricts markets in Tuvalu and increases the difficulties of delivering educational and health services. Nevertheless, the literacy rate is relatively high in Tuvalu and policies were commenced in the 1990s to increase the number of years of attendance of students at school. Implementing this policy has, however, proven to be difficult because of limited public finance, lack of suitably trained teachers, and a shortage school facilities and curricula materials.

While the economic situation of Tuvalu remains vulnerable, Tuvalu has followed development strategies which yielded positive economic results in the 1990s. In relation to development policies, the Government of Tuvalu has taken a long-term perspective and this has paid dividends in recent times.

References

- ADB (1998) *Tuvalu: 1997 Economic Report*, Asia Development Bank, Manila.
- Falekaupule Trust Fund Deed*, 31st July, 1999, Funafuti, Tuvalu.
- Government of Tuvalu (1995) *Kakeego o Tuvalu: National Development Strategy – 1995 to 1998*, Government of Tuvalu, Tuvalu.
- Government of Tuvalu (1999) *Tuvalu National Budget 1999*,
Department of Finance and Economic Planning, Funafuti, Tuvalu.
- Tuvalu Business Centre (1999) *A Guide to the Tuvalu Business Centre*,
Tuvalu Business Centre, Vaiaku, Funafuti.
- UNDP (1999) *Pacific Human Development Report 1999: Creating Opportunities*,
United Nations Development Programme, Suva, Fiji.

APPENDIX

Interviews in Tuvalu September, 1999

1. Ms. Patricia Croker Vakuafua, Ag. Assistant Secretary, Finance, Economic Planning, and Govt. Accountant.
2. Mr. Asafene Hopi, Acting Manager, (Lending), Development Bank of Tuvalu.
3. Mrs. Fa'au E. Telii, Acting Manager, (Finance), Development Bank of Tuvalu.
4. Mr. Siose P. Teo, Acting General Manager, National Bank of Tuvalu, Funafuti.
5. Mr. Andrew Justin Collard, Manager, (Finance and Administration), National Bank of Tuvalu, Funafuti.
6. Mr. Uale Sinapati, Acting Secretary, Department of Works, Energy and Communications.
7. Mr. Michael Fong, UN Business Advisor, Tuvalu Business Centre.
8. Ms. Lagalaga Tautu, Business Development Officer, Tuvalu Business Centre.
9. Sootaga Paape, Senior Education Officer (School Supervisor) Department of Education, Funafuti, Tuvalu.
10. Mr. Rodney Lewington, Chief Economic Consultant Economic Statistics (New Zealand) Consultant to Statistics Office of Tuvalu.
11. Mr. Isaako Kine (Manger-Finance), Tuvalu National Provident Fund
12. Dr. Seve Lausaveve, Secretary, Department of Internal Affairs, Rural and Urban Development.
13. Dr. Nese Ituaso, Medical Officer, Princess Margaret Hospital, Funafuti, Tuvalu.
14. Mr. Takashi Matsuako, Field Services Division, Ace Water Treatment Co. Ltd., Tokyo, Japan, Supervising installation of water desalination plant.
15. Capt. Tito Tapungao, Principal, Tuvalu Maritime School, Amafuku, Funafuti, Tuvalu.
16. Hon. Koloa Talake, Chairman Public Sector Reform Committee, C/- Office of the Prime Minister.
17. Ms. Hellani Tumua, Administration Officer, AusAID Office, Funafuti, Tuvalu.
18. Ms. Lita Pita, Coordinator, Tuvalu National Council of Women, Funafuti, Tuvalu.
19. Mr Afelee F.Pita, Permanent Secretary, Ministry of Finance and Economic Planning, Funafuti, Tuvalu.

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