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MIGRATION, EMPLOYMENT AND DEVELOPMENT IN THE SOUTH PACIFIC

COUNTRY REPORT NO. 19
TUVALU

John Connell

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Port-Moresby: Institute of Papua New Guinea Studies, 1975.

Preface

This report is one of a series of country reports covering all the countries in the South Pacific Commission area that have been produced as part of the Migration, Employment and Development in the South Pacific project. This project is administered jointly by the South Pacific Commission and the International Labour Organisation and was established in April 1981 with funds provided by the United Nations Fund for Population Activities. The project, which is based in Noumea, covered all the countries and territories in the South Pacific Commission area and also investigated migration from the region into Australia, New Zealand, Canada and the United States of America. The series of specific country reports is listed on the back cover of this report.

In consultation with the SPC, the ILO appointed Mr John Connell as a resident expert to co-ordinate the implementation of the project. Within the SPC, Drs Ko Groenewegen provided guidance on technical and administrative aspects of the project. Work on the preparation of the reports was undertaken by Mr John Connell with some early research assistance from M. Jean-Marie Delmas and the secretarial assistance of Ms Maeva Betham. Advice, comments and assistance, both technical and administrative, were also provided by the ILO's Labour and Population Team for Asia and the Pacific (LAPTAP). The project is indebted to many individuals within the countries, in SPC and elsewhere, who helped in the compilation, analysis and assessment of the data and related reports, and these are acknowledged in specific country reports.

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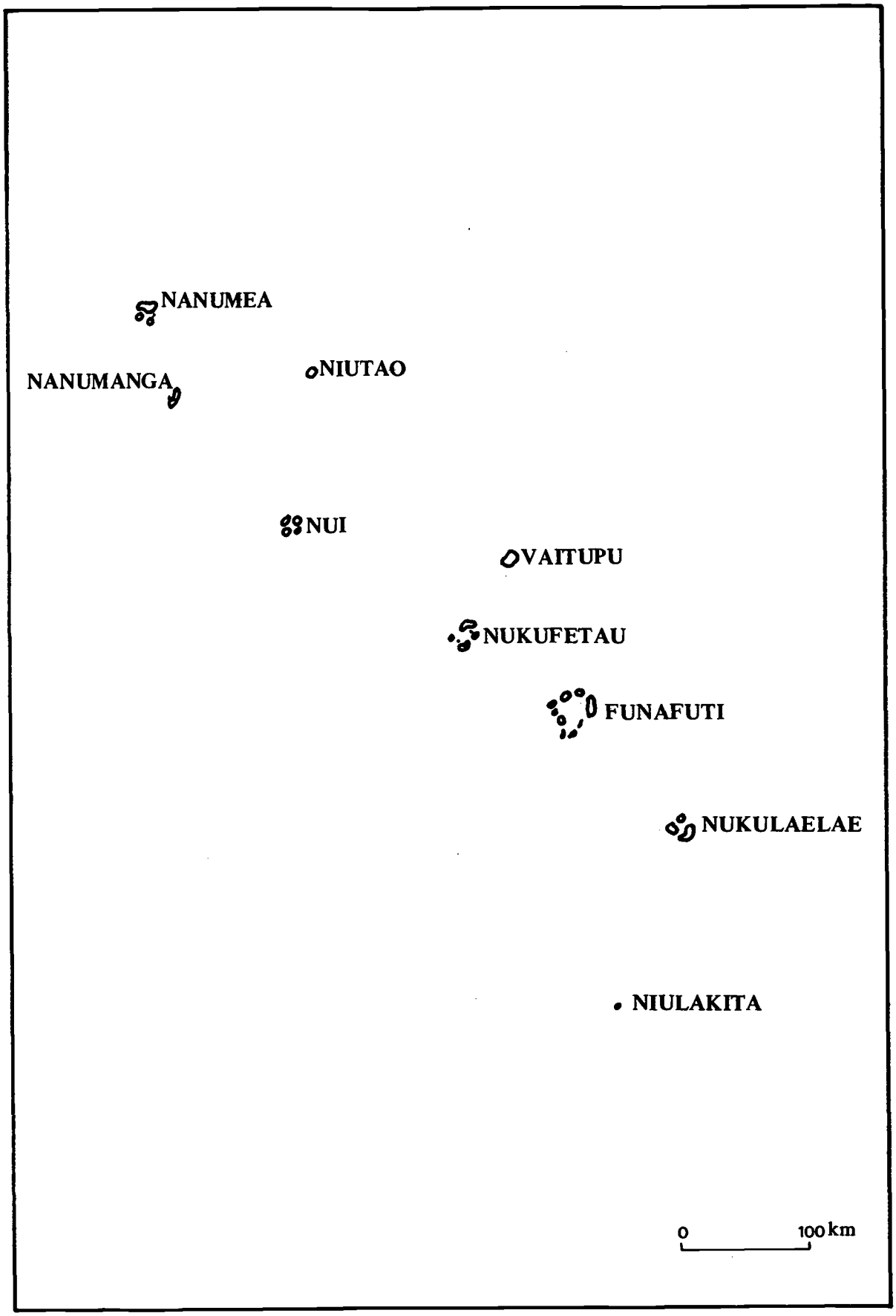
Contents

Introduction	1
Economy	2
Employment	6
Migration	15
International Migration	22
The Rationale and Impact of Migration	28
Conclusion	33
References	39

List of Tables

1	Income Estimates, 1979	6
2	Wage and Salary Employment, 1973-1979	7
3	Employment in the Cash Economy, 1979	8
4	Household Cash Incomes by Source	12
5	Population of Tuvalu	13
6	Population, 1947-1979	14
7	Lifetime Migration, 1963	17
8	Lifetime Migration, 1968	18
9	Inter-Island Lifetime Migration, 1979 - (Population aged 15 years and over)	19
10	Lifetime Migration of Tuvaluans	20
11	Lifetime Migration (Population aged 15 years and over) by Home Island and Sex	21
12	Tuvaluans Overseas, 1973	23
13	Estimated migrants outside Tuvalu in 1973	24
14	Tuvaluans in Nauru	26


NANUMEA
NANUMANGA
NIUTAO
NUI
VAITUPU
NUKUFETAU
FUNAFUTI
NUKULAELAE
NIULAKITA
0
100 km

Tuvalu is one of the smallest and least developed independent nations in the world consisting of nine coral atolls and reef islands stretching over some 590 kms. of the South Pacific and separated from each other by distances never less than 60 kms. Historically Niulakita was unoccupied and Tuvalu is translated as 'eight standing together' or 'cluster of eight'. Despite being scattered over 1.3 million sq. kms. of the South Pacific the total land area is no more than 24 sq.kms., the largest atoll being Vaitupu with 4.9 sq.kms. and the capital, Funafuti, has 2.4 sq.kms. The country became independent in 1978 following secession from Kiribati in 1975, the two states having previously jointly been the Gilbert and Ellice Islands Colony. As in other atoll economies there are few known natural resources and the prospects for economic development are extremely slight.

Tuvaluans are Polynesians and Tuvalu was settled by Polynesian migration from Samoa, Tokelau and, in the northern atolls, from Tonga; the Tuvaluan language has similarities with Samoan, Tokelauan and the languages of the Polynesian outliers to the west. Unlike the other atolls Nui had significant settlement from Kiribati and the Nui language is somewhat different from elsewhere in the country. Traditional Tuvaluan society was hierarchical but not rigidly stratified; on some islands leadership was confined to a single descent group whilst in others it rotated amongst leading families. There was a degree of social mobility since it was possible to become a chief (aliki) through achievement as well as by inheritance (Macdonald, 1982:11). Much of the traditional authority of Polynesian chiefs was eroded during the period of missionisation but social structure is of maintained importance. When the settlement of Tuvalu occurred is unknown, but it may not have been long before Europeans reached the central Pacific; there are even suggestions that colonisation, originating in Vaitupu, may have been as recent as the Sixteenth Century (cf. Munro and Bedford, 1980:2). Most islands were probably settled between the Fourteenth and Eighteenth Centuries, with Nukulaelae perhaps the last to be settled (Munro, 1982:7). Although at least one atoll had been sighted by the great Spanish explorer, Mendana, on his first voyage to the Pacific in 1568, these discoveries were forgotten and several atolls were discovered by Europeans, or possibly rediscovered, only when Captain Arent de Peyster arrived at Funafuti atoll in 1819. Captain de Peyster's ship Rebecca was owned by Edward Ellice, a London merchant and financier of wide imperialist interests and the atolls received his name.

After the Western Pacific High Commission had been set up in 1877 the Ellice Islands, along with their northern neighbours the Gilbert Islands, were, in 1892, proclaimed a British Protectorate to protect the islanders from raids by 'black-birders' the shipping crews that were travelling through the South Pacific seeking labourers for the sugar cane plantations of Queensland. Even before that Peruvian slavers had taken a heavy toll of the population on several of the atolls (see below). In 1915 the Protectorate became the Gilbert and Ellice Islands Colony and by then missionaries, most of whom were Samoans, had converted the islanders to Christianity; today the Congregational Church of Tuvalu retains substantial social and political influence in the islands and the national anthem is 'Tuvalu for the Almighty'.

The Gilbertese (I-Kiribati) are Micronesians and the Tuvaluans Polynesian; this ethnic division was reinforced by linguistic and some cultural differences. The unity of the two island groups, which paid little heed to these differences, being principally for the convenience of colonial administration, began to fray in the 1970s as the whole colony moved towards self-government and then independence. Yet even as colonial interest

declined it was still possible for Woodcock, in his book South Sea Journey, to speak of Tuvalu as an 'outpost of empire so classic that it approaches caricature' (1976) and for Macdonald Kiribati and Tuvalu were the 'Cinderellas of the Empire' (1981). Because of its remoteness, colonial impact has not been great although Isakala Paeniu, then Member for Nukulaelae atoll, argued prior to Independence that 'Tuvalu was to rid itself of the tyranny of foreign rule and follow the examples of other Pacific countries in making itself master of its own house' (1978:120).

Concerned over domination by the Gilbertese, who outnumbered them by about seven to one, the Tuvaluans opted for secession. As Macdonald has noted, it was 'secession in the defence of identity' (1975). A referendum was held in August and September 1974, and some 92% of the voters voted for separation which eventually took place on 1 October 1975. It was generally an amicable separation although the Tuvaluans received nothing more than a small ship as their part of the settlement while the economic future of the Tuvaluans working in the Gilbert Islands became increasingly precarious. After only four months of self-government in 1978 (a commonwealth record) the nation became independent.

Economy

The land area of Tuvalu is no more than 2,400 hectares (24 sq. kms.) although there are substantial lagoon areas. The traditional economic systems of Tuvalu were essentially the same as those of Kiribati and the Marshall Islands to the north and Tokelau to the east. The constraints of thin, porous soils, salt spray and low rainfall hamper agricultural development and diversification and there is no surface water. The principal crops are coconuts, pandanus, swamp taro (pulaka), which is grown in pits, and taro. Pigs and poultry are significant throughout Tuvalu but most meat is imported. The traditional economy is described in detail elsewhere (Chambers, 1975). Unlike the southern Gilbert Islands, droughts rarely occur although natural hazards take the form of hurricanes such as Hurricane Bebe in 1972 which swept away the coconut palms, and caused some loss of life, in Funafuti. Nineteenth Century visitors to some of the atolls of Tuvalu commented on the abundance of foods available but, even then, there were significant inequalities in land holdings (cf. Connell, 1980b) and fragmentation has limited some forms of development. The traditional agricultural economy is extremely restricted and the potential for further agricultural development minimal.

The only agricultural export from Tuvalu is copra which is of a high quality but export quantities are small, production varies annually (mainly because of climatic interruptions), markets are remote and prices are poor. Since the 1972 hurricane no copra has been produced on Funafuti. Copra exports in recent years have shown an upward trend and, in 1979, 800 tonnes were exported, after some years when exports remained around 200 tonnes. Since then exports have again declined and freight rates have caused problems for marketing copra produced on outer islands. Whilst attention is currently being given to coconut replanting schemes, the production and export of copra is a fragile basis on which to develop a national economy.

Following the lead of Kiribati, Tuvalu began in 1982 a feasibility study on the possibility of a reclamation project that would increase the land area of Fongafale (the main island of Funafuti atoll) by 30%, using infill dredged from the lagoon to reclaim about 50 hectares of land. This is a measure of the desperate shortage of land resources, especially in

Funafuti, as is apparent from population densities in Tuvalu (Table Six). Only Nauru, in the South Pacific region, has an overall population density greater than that of Tuvalu. Tuvalu and Kiribati (Country Report No.7) are the only two countries in the South Pacific region where there have been significant attempts to reclaim land for agricultural or settlement use, an indication of the importance attached to even very limited land resources in two very poor countries.

Since it is the largest island and the base of the Department of Agriculture Vaitupu has attracted some development projects such as agricultural experiments with poultry, pigs and goats and in 1982 a new beekeeping (honey) project. The significance attached to this project (cf. Islands Business, July 1982:9), which demands the import of bees, is a measure of the limited development potential of the Tuvaluan economy.

Surveys of the fisheries of Tuvalu have indicated the availability of considerable fish stocks hence there is some potential for the development of a tuna export industry. A fishing survey carried out by the South Pacific Commission in mid-1978 concluded that optimism over Tuvalu's fishing potential appeared justified: 'The location of Tuvalu close to the equator would suggest that skipjack (tuna) should be abundant year round and the excellent seasonal catches taken by the Japanese distant water fleet in this area endorse optimism for the establishment of some type of skipjack fishery in Tuvalu' (cited by Carter, 1979:83). Traditional fishing has been done from canoes within the lagoon or close to the reef hence the necessary technological change is considerable. A fish market with freezer facilities has been established at Funafuti to provide the nucleus of a fish marketing system but the constraints to development are considerable - the scattered atolls, irregular internal and external shipping (until the Nivanga can be replaced), limited local fishing expertise and knowledge of resources. Thus although fisheries development offers the single greatest potential for economic development in Tuvalu it must be achieved almost entirely through foreign resources. Both South Korea and Taiwan fish in Tuvalu waters and for 1982 paid licence fees of $176,000 but no agreement has yet been reached with Japan. In 1982 Tuvalu received a modern skipjack fishing vessel from Japan, and Tuvaluan crew are now being trained to operate this (Anon, 1982a). Seven Fijian vessels also fish in Tuvaluan waters, employing about 15 Tuvaluan fishermen, and providing a 2 1/2% share of the profits to the Tuvaluan government. Beche-de-mer production has begun on a small-scale, and there may be possibilities for other small-scale marine industries.

The supply of fresh food in Funafuti is extremely limited, probably more so than in any other town in the South Pacific region. There is no real market, few foods are brought from outer islands and even fish is often in extremely short supply. Consequently diets in Funafuti have a very large component of relatively expensive imported goods. The remittances of migrant workers have also helped diversify the diets of the islanders away from the traditional atoll fare of coconuts, fish and taro with occasionally a few scrawny chickens and pigs. Flour, rice, sugar and meat from Australia, New Zealand and Fiji are more than twice as expensive as in the countries of origin. Flynn estimated that 'Whereas in earlier centuries the normal protein-rich diet consisted of fish and coconuts with occasional additions of pulaka (swamp taro), pork, poultry, bananas and pumpkin, nowadays Western-type imported foods...have increased so much in importance that they now form as much as 70% of the diet in Funafuti and more than 50% in outer islands' (1978:194). Moreover Zimmet et al (1977: 1102-1103) suggest that 85% of food requirements on Funafuti are imported. These estimates are perhaps too high, yet tinned fish is now a significant import

and foodstuffs, beverages and tobacco in 1981, constituted 35% of imports by value, a proportion which has however been falling in the last two years. This is much the same situation as elsewhere in the South Pacific where it has been described as 'food dependency' or 'dietary colonialism' (McGee, 1975), potentially an extremely dangerous form of dependency since food is the basis of life.

The traditional agricultural system in Tuvalu, as in other atoll economies with severely limited natural resources, was only capable of limited response to external influences; the localised food shortages of historic times may well have caused malnutrition in many cases. Hazards were an occasional threat to adequate food production so that, to a greater extent than in most other places in the South Pacific (and other global ecosystems) elements of poverty and limited development were aspects of the pre-contact socio-economy. Progressive economic incorporation into a global economy was able to initially strengthen the traditional economy (through the sale of copra) but by producing a need for cash and imported goods sowed the seeds of an equally inevitable and comprehensive dependence on a variety of external resources and the decline of an essentially viable traditional socio-economy. An initial period of post-contact prosperity is being followed by a slow spiral of decline, reflected in the extremely high proportion of overseas workers (see below). However the existence of remittances, and national welfare provisions, ensures that 'islanders are better prepared to survive disruptions in the physical environment than they ever were in aboriginal times' (Brady, 1978:278), but at the expense of the disruption of the traditional economy, worsened diets and the decline of self-reliance.

Each of the eight permanently occupied islands (that is except Niulakita) has a primary school and 95% of children in the primary school age group regularly attend school. In 1979 the first Community Vocational Training School was completed on Vaitupu, and it was planned to proceed with other similar schools elsewhere, to provide basic skill training appropriate to rural life for those who have not qualified for academic training or the Tuvalu Maritime Training School. The country's only secondry school is at Motufoua on Vaitupu; the limited expansion of the public service at the end of the 1970s resulted in a high level of unemployment amongst school leavers, estimated at 30% in 1980 (Tuvalu, 1980: 131). An increasing number of children attend secondary schools in Fiji and elsewhere and most tertiary education is in Fiji. The USP has an extension centre in Tuvalu. The Tuvalu Maritime Training School opened in 1979, on the islet of Amatuku in Funafuti, on similar lines to the Marine Training School in Kiribati (Country Report No.7), with its first 25 trainees. By mid-1980 there were 60 trainees. The School aims at developing basic seamanship skills alongside the governments policy of seeking out employment opportunities on foreign ships.

The one hospital in Tuvalu is on Funafuti; each island has some medical services but there is a shortage of medical manpower, especially of nurses and medical assistants. Gastro-intestinal and skin diseases are the main disease problems, hence health policy has increasingly been aimed at preventive medicine (incorporating improved water supplies and sanitation). Increasing consumption of western foods and sedentarisation of the population, especially on Funafuti, has contributed to high and increasing diabetes rates (Zimmet et al, 1977) similar to those in other urban Polynesian and Micronesian populations. Many services are extremely restricted; most water supplies are from roof catchments which supply household tanks, electricity reaches some households in Funafuti, on a

restricted basis, and also supplies the Motufoua School at Vaitupu. Only 7% of all Tuvalu households had electricity in 1979 hence kerosene-fuelled lamps of different kinds were important throughout the country.

Sea transport is crucial to development in Tuvalu, yet Tuvalu owns only one old, small freighter, the Nivanga. On two occasions its repair resulted in breakdowns in the distribution of commodities to some islands and during the first plan period (1978-1980) problems of communications were a major constraint to outer island development, and currently prevent the domestic marketing of agricultural produce. The Pacific Forum Line has recently agreed to run a spur service to Tuvalu and Kiribati which may improve the situation but the future of this service is uncertain. Air transport links Tuvalu to Tarawa (Kiribati) and Suva (Fiji) but capacity is extremely limited and the cost considerable. In 1980 an internal charter air service with one amphibious four-seater plane began linking Funafuti with most of the other islands, except Nanumanga, Niutao and Niulakita, which do not have lagoons, although emergency sea landings are possible there. The service ended in 1983 when it became too expensive for the government to maintain. A land-based system is being considered. Only two islands in Tuvalu, Funafuti and Vaitupu, have any four-wheeled transport and this is limited to a few cars, tractors and small trucks.

The remoteness of Tuvalu from major metropolitan population centres, intervening opportunities, the cost of reaching Tuvalu, its lack of significant wartime events and limited facilities effectively preclude any development of tourism. The export of handicrafts has so far been small, but could expand considerably, there are no known mineral resources and very limited commercial development, because of the small size, fragmentation and low incomes of the domestic market. Funafuti is the only island with privately-owned (that is non-cooperative) stores and only bread production could be considered an import substitution industry. In 1982 the Government established the Business Development Advisory Bureau (BUDAB) which, in conjunction with the new National Bank of Tuvalu, provides advice and funding for private sector commercial enterprises, in such activities as carpentry and retailing. By July 1983 the Bureau had assisted 29 businesses with capital guarantees of $130,558 (Tuvalu News Sheet, 186, 7 July 1983).

Until very recently copra was the only export from Tuvalu, but sales of stamps now bring in a substantial export income, and the philatelic bureau is the largest employer of labour, after government; the most recent available income estimates demonstrate its role in Tuvalu's income (Table One). Philatelic exports cannot however be expected to continue in the future at their previous rapid rate of expansion (Anon, 1982b). Rapid rises in the cost of imports (especially fuels) have contributed to a substantial and increasing balance of payments deficit. As the current Development Plan records, 'the growth of the economy is due almost exclusively to aid flows into the country' (Tuvalu, 1980a:7) and the government is 'the dominant economic force in the economy of Tuvalu' (op cit:15). In many respects the existing economy of Tuvalu is wholly artificial in its limited relationship to existing natural resources in the country, and the growth of the government sector has put considerable strain on the economy.

Tuvalu's first development plan was issued in 1978 to cover the three year period 1978-1980 and a second development plan was issued in 1980 to provide a year of overlap with the first plan and cover the years 1978-1980. The first plan concentrated 'on the special problems and issues arising from independence, in particular the need to forge a new nation out of part of a former colony' (Tuvalu, 1978:1) and the principal economic aim was that of

the strengthening and diversification of the Tuvalu economy and the movement towards ultimate self-reliance. Priority was given to communications, agriculture and fisheries, the creation of new employment opportunities in Tuvalu and overseas and the development of a comprehensive family planning programme. Although the plan was a practical attempt to institute development procedures 'it remains largely the work of outsiders to which island development programmes have been tacked on...Basically it is purely an economic document or list of estimates and it ignores social and cultural realities or the likely human consequences of future policies' (Geddes et al, 1979:17). The Second Plan is a more sober and sombre document which continues the themes of the first plan 'but also attempts to take a longer term perspective on the future development of the economy towards the achievement of economic self-reliance' (Tuvalu, 1980a) which effectively means budgetary self-reliance. Greater stress was placed on the development of outer islands in an attempt to reduce the disparity between income levels in Funafuti and elsewhere but limited opportunities, finance and administrative expertise have slowed the implementation of plan proposals, which themselves are sometimes tentative.

Table 1. Income Estimates, 1979.

Sale of philatelic items	$1,041,000
Grant-in-aid	750,000
Remittances	500,000
Copra exports	237,940
Visitor and expatriate expenditure	150,000
Other	100,000
TOTAL	2,778,940

Employment

A comprehensive census in 1979 (Tuvalu, 1980b) with considerable information on household economic characteristics (Bertram, 1980), alongside two manpower surveys conducted on either side of the census (Knapman, Isala and Skutle, 1976; Knowles, 1982), have provided very detailed information on the employment structure of Tuvalu. In 1982 the only missing data for comprehensive manpower planning was that of wage employment in the private sector (Knowles, 1982:1), and that sector was known to be very small.

The 1979 census demonstrated that only a small proportion of the labour force were engaged in formal sector employment within Tuvalu. Of the de jure labour force (aged 15 and over) some 671 (24.7%) of males were engaged in cash employment within Tuvalu and 570 (21%) engaged in cash employment outside Tuvalu. This latter figure included 255 seamen employed overseas but not included in the census. Of the female labour force 231 (7.8%) were employed within Tuvalu and 21 (0.7%) outside. The remainder of the labour force were principally engaged in village life or home duties without

renumeration (60.9%) or engaged in home duties outside Tuvalu or unemployed (12.8%). Thus 40% of all Tuvaluans in the formal sector were actually employed outside Tuvalu (Bertram, 1980:69).

Between 1973 and 1979 the village sector expanded less rapidly than the wage employment sector but remained the leading employer of new recruits into the labour force. Employment in the cash economy within Tuvalu doubled between 1973 and 1979; this continues a trend established since the Second World War. The 1947 census recorded 141 males and 12 females in cash employment (about 6% of the adult population). The principal period of increase was the most recent period leading up to the secession and independence of Tuvalu and the development of government activities within Tuvalu. Thus in the 1973-1979 period an additional 461 cash-earning jobs were established, 375 of which were in Funafuti and 83 in Vaitupu (Table Two). In the same period Niutao lost 10 jobs, Nukufetau lost one job and no other island gained more than six jobs. Thus economic activity was very considerably concentrated on Funafuti (with 649 of all the 902 jobs) and also Vaitupu, with 116 (Bertram, 1980:71-72), where the secondary school and Department of Agriculture are located. In contrast the numbers in the village economy increased on all islands, with the exception of Funafuti, which actually experienced a decline in the village sector (op cit:71-73). In that short period the economic differences between Funafuti and other islands in Tuvalu have been emphasized. This distinction has been maintained and re-emphasized in subsequent years.

Table 2. Wage and Salary Employment, 1973-1979.

	1973	1979
Nanumea	29	34
Nanumanga	15	15
Niutao	31	21
Nui	20	22
Vaitupu	33	116
Nukufetau	25	24
Funafuti	274	649
Nukulaelae	12	18
Niulakita	2	3
TUVALU	441	902

Source: Tuvalu, 1980b:27.

The employment structure of Tuvalu (Table Three) demonstrates that the bulk of cash employment is in services, especially government services, and construction. Directly productive activities (agriculture, fishing and manufacturing) account for no more than 11% of total cash employment (6% in the printing industry, 3% in agricultural services and 2% in fishing). None of the major market-oriented activities of the Tuvalu economy (copra production, fishing and handicrafts production) is a major provider of cash employment, but all are primarily organised within the village, household economy. Only in construction, and to a limited extent in fishing, are there any signs of private employers emerging. The service sector has a greater dominance in outer islands primarily because of the relatively even spread of health, mission and education services.

Table 3. Employment in the Cash Economy, 1979.

	Indigenous Population				
	Funafuti	Other Tuvalu	Total	Non Pacific Islanders	Total
Agriculture and Fishing	9	29	38	4	42
Manufacturing	62	0	62	0	62
Utilities	13	1	14	0	14
Construction	191	33	224	5	229
Commerce	76	33	109	4	113
Transport	89	18	107	4	111
Government administration	115	62	177	5	182
Community services (health, education, missions, etc).	70	63	133	11	144
Personal Services	23	14	37	0	37
Other	1	0	1	1	2
TOTAL	649	253	902	34	936

Source: Bertram, 1980:76.

Government is overwhelmingly the dominant employer, accounting for at least 479 of the 936 jobs and this total excludes the government construction workforce. The second largest employer in the country is the Philatelic Bureau. Cooperative enterprises account for most wholesale and retail trade employment (87 jobs) and land transport (14 jobs), around 10% of total employment, together with some jobs in construction. These figures are estimates, since the census included no question on employer, but they do correspond with earlier estimates.

The very small size of the Tuvalu public service presents a number of problems. Firstly, many senior personnel are under-utilised and employed in tasks below their skill level since specialisation of skills is not possible in a micro-economy and there are few opportunities to use some skills. Secondly, there are considerable costs involved in training senior personnel and specialists, especially if those skills cannot be fully utilised, and even more so if specialists leave their jobs for any reason (even if on short-term training courses overseas); thus 'where an accident has occurred which takes away the life of the only officer in his division, then that gives a full stop to the service and planning to train someone that will qualify in another two to three years has to be made quickly' (Taafaki, 1982:3). Thirdly, the productivity of junior staff is very low, in part due to the lack of supervisory ability of the senior staff, and there is virtually no on-the-job training. For the two largest groups of professional workers, teachers and medical personnel, these limitations are less apparent and both in-service training and release are possible without disruption. Both in clerical/secretarial positions and construction and maintenance there are urgent needs for training programmes but too few workers to justify an apprenticeship programme (Knowles, 1982:10-12). The problems of manpower development in Tuvalu are thus considerable.

The 1979 census recorded only 34 non-Pacific Islanders in employment, 27 of whom were in skilled, white-collar jobs, such as teaching. The four professions in which foreigners predominated were civil engineers, economists, accountants and ministers of religion (Bertram, 1980:77). Of these 24 were employed in Funafuti and 10 in Vaitupu (Tuvalu, 1980b:230). This severely limits the opportunities for localisation.

Between 1973 and 1979 the number recorded as unemployed in the census rose from 8 to 162, however there was probably some effective change of classification since there were no females unemployed in 1973 but in 1979 some 78 (almost half the total) were females hence this data must be treated with caution (Bertram, 1980:77-78). Of those unemployed, some 58 (36% of the total) were in the age group 15-24, a clear indication of significant youth unemployment; 126 (78% of the total) had previous work experience and 112 (69%) were enumerated in Funafuti. Although no separate figures were recorded for Vaitupu, 'coupled with the evidence of rapid expansion of cash employment in Funafuti and Vaitupu, this tends to indicate that unemployment has emerged in Tuvalu as a result of an excess of new would-be recruits seeking positions in cash employment, rather than as the result of laying-off of persons previously employed within the local economy' (Bertram, 1980:77). Nevertheless the acute problems of defining employment in a relatively traditional semi-subsistence economy such as that of Tuvalu demand that this data should be interpreted primarily as a rough guide to the numbers and distribution of the unemployed since many of those recorded as unemployed were almost certainly active to some extent in the village economy. However the virtual disappearance of a traditional agricultural economy in Funafuti does suggest that it would be relatively difficult for an individual, unemployed in Funafuti, to be reabsorbed into the village economy there. It is also necessary to note that there is some under-employment within the wage and salary-earning sector both because of the need to meet persistent demands for high status, white-collar employment and to provide a socially acceptable and economically efficient channel for distributing aid money throughout the community (G. Bertram, letter to K. Groenewegen, 29 August 1980). In this respect Tuvalu is little different from other South Pacific economies where government employment is absolutely dominant.

Since 1979 the failure of new job creation in Tuvalu, and especially the stability of numbers in the public service sector, alongside further internal migration to Funafuti, have almost certainly contributed to a significant increase in overt unemployment, especially in Funafuti. Although Knowles argues that, because elements of a village economy persist in Funafuti, 'a landless urban proletariat is not likely to develop' (1982: 4) there, yet the absence of new employment opportunities and the limits of the village economy place very great pressures on those households with paid employment or agricultural land.

All available evidence suggests that there has been very little growth in the wage and salary sector since 1979 and the prospects for economic development in Tuvalu suggest that this is unlikely to change in the near future. Even in 1976 the employment situation was gloomy (Knapman et al, 1976) and six years later,

> 'everyone is realistic as to the limited options for economic growth, increasing family cash income and increasing wage employment...The central issue is that the labour force...will grow modestly while opportunities in wage employment will not grow during the next plan period. Consequently policy decisions must be made regarding the encouragement of out-migration, sharing of wage employment and improvement of living conditions in the village economy' (Knowles, 1982:1).

The largest employer of wage labour is the government which, because of limitations of revenue, has put a freeze on hiring and is seeking means of reducing staff numbers. From around the middle of 1982 the public service

was reduced to a 4 1/2 day working week, to avoid redundancies, whilst saving on wages and salaries. Moreover much of the infrastructure resulting from the transition to independence is now completed or almost completed, and the demand for new construction activities is likely to be extremely small. Since the private sector is almost entirely dependent upon the income generated by the public sector, lack of growth (and reduced incomes) in the public sector will prevent growth in the private sector, and is likely to lead to a reduction of employment there. The only area in which employment might be increased is in the fisheries sector and several reports have recommended development in this area. However,

> 'No steps have been made to implement these recommendations, which were made in 1976. In the present world recession both the price and the demand for fish has fallen and it is not the right time to launch a commercial fisheries scheme' (Knowles, 1982:4).

Nevertheless the fact that this is the only sector that demonstrates growth potential demands that further investigations be made of the most appropriate fisheries development strategies. Overall various estimates suggest that (without migration) during the period 1983-86 the labour force will increase by 160 to 225 persons, all of whom must be accommodated within the village sector, emigrate or become unemployed (op cit:4). This further emphasizes the necessity of developing the village sector, especially through the encouragement of coconut planting and rehabilitation schemes (for copra production) and the improvement and rationalisation of inter-island shipping and air services to provide some means of internal marketing of agricultural production.

In the past Tuvalu has been highly dependent on overseas employment; until secession there was substantial migration to Kiribati (many working in the public service) and Tuvaluans occupied a disproportionate number of public service jobs. The return of these workers and those from the Banaba phosphate mine, following its closure in 1979, placed considerable pressures on the Tuvalu economy, not only because of the task of finding wage employment for these return migrants but because of their values and expectations and their preference for living in Funafuti. Two groups of overseas migrants remain, those in Nauru (where employment opportunities will disappear in approximately a decade when the phosphate deposit is exhausted) and those on overseas shipping (see below). The basic problems of job creation in Tuvalu will be exacerbated by the eventual return of Nauru workers and hence have resulted in considerable emphasis being attached to the search for new job opportunities overseas, so far without significant success (see below). Currently the prospects of developing domestic employment opportunities are so few that the search for overseas jobs has the highest priority.

The limited availability of formal sector employment, either in Tuvalu or overseas, has forced attention to be given to schemes to ration and share wage jobs. Reduction in the retirement age, as has occurred in Kiribati (Country Report No.7), is currently under consideration (Knowles, 1982:8). There have not yet been proposals for the rotation of unskilled and semi-skilled jobs, through three-year contracts, in the same way that has also been attempted in Kiribati.

The majority of Tuvaluans in the workforce are employed within the 'village economy', that is in a combination of activities usually incorporating subsistence agricultural production, cash cropping (of copra) and fishing, but possibly also occasionally including part-time wage

employment. Only 6% of households have no resident member earning a cash income, and many of these receive remittances (Bertram, 1980:79) so that virtually no households are now solely confined to the traditional village economy. (Curiously, of the 23 households in Tuvalu claiming no source of cash income, eight were on Funafuti, which must cast some doubt on this data).

The changing national composition of the workforce and the dominance of Funafuti in the cash employment sector have resulted in a number of other characteristics of the workforce that distinguish Funafuti from other islands. Funafuti has a more youthful workforce than the other islands; 76% of males and females in the Funafuti workforce are aged between 15 and 44 compared with 62% of males and 67% of females on the other islands, a phenomenon which reflects the impact of migration to Funafuti. This differential is even greater in respect of the workforce employed in the cash sector (Bertram, 1980:74). Funafuti also stands out from the other islands in relation to participation in some traditional economic activities; although participation in fishing is little different from the national average, there is no copra production there and only 36% of all households are engaged in pit taro (pulaka) production, compared with the national average of 77%. Low proportions were also recorded as participating in such activities as seafood collecting, toddy production and handicraft production (Bertram, 1980:82-83). In part this represents both high population densities and limited access to land and reefs for the migrant population but is also a result of high levels of wage and salary earning. Similarly Funafuti households had generally high rates of ownership of imported durable goods, in comparison with other islands. For example, 29% of all Funafuti households owned a motorbike compared with the national average of 20% (and 1% or less on five islands). Again, the growing significance of a 'modern' economy in Funafuti is apparent.

Data on income levels is poor but it is apparent from the distribution of wage and salary employment (Table Two) that there are substantial differences between Funafuti and the other islands. In 1979 per capita GDP was estimated at $801 for Funafuti and $165 for the outer islands. A survey of the island of Nanumea found that in 1973 (which appeared to be a reasonably typical year) the average cash income was $44 per capita, which was then about typical for Tuvalu (and higher than that of several Kiribati islands). Remittances by telegraphic money orders from islanders employed in the phosphate mines of Nauru and Banaba then constituted two-thirds of this income (Chambers, 1975:131). The 1979 distribution of incomes by source of income (Table Four) indicates that there are basically three forms of income: wages and salaries (and 55% of all households receiving wage incomes are on Funafuti and a further 19% on Vaitupu), sales of produce and remittances. Income from sales of produce is proportionately lower on the islands of Funafuti and Nui, in the first case because of very high population pressure on resources and the more widespread dependence on cash incomes. Remittances constitute the second most important in terms of distribution between households since 56% of all households receive some remittance income. There is no data on the size of current household cash incomes (and their distribution) although the available evidence suggests that there has been no significant increase in cash incomes in the past few years but a greater degree of income inequality between Funafuti and the outer islands.

Table 4. Household Cash Incomes by Source.

Island	Total Households	Wages	Own Business	Pension	Sales of Produce	Remittances		No reported cash income
						Regular	Occasional	
Nanumea	140	32	2	5	131	61	28	3
Nanumanga	103	15	0	0	97	19	47	2
Niutao	131	22	0	0	116	21	66	3
Nui	87	19	0	2	76	19	31	1
Vaitupu	168	90	1	4	141	42	49	3
Nukufetau	107	19	0	2	84	52	36	4
Funafuti	284	259	19	20	33	31	37	8
Nukulaelae	50	14	0	2	44	28	16	0
Niulakita	9	4	0	1	7	0	1	0
TOTAL	1,079	474	22	36	729	273	311	24
% OF TOTAL HOUSEHOLDS		43.9	2.0	3.3	67.6	25.3	28.7	2.2

Note: All households may be counted more than once.

Source: Tuvalu, 1980a:9.

Population

Documentary evidence on the population of Tuvalu before 1865 is sketchy but after that data is more readily available and in the last quarter of the century the population increased from just under 2,500 in 1876 to just over 3,500 at the end of the century. There were considerable fluctuations in the population of several islands, much of which was a result of inter-island visiting which was then, and still is, an important feature of Tuvaluan life (Brady, 1972:42-43; Munro and Bedford, 1980:5). The population growth had been so marked that as early as the 1890s resettlement was being suggested as a solution to what was perceived as an impending overpopulation problem (op cit:7). Nineteenth Century evidence suggest that there was a fine balance between population and resources and extensive population control included both abortion and infanticide; in 1865 it was recorded that 'they were genuine Malthusians. They feared that unless the population was kept down they would not have sufficient food' (cited by Munro and Bedford, 1980:3) and the people of Vaitupu were reported to have such a fear of starvation that 'there was a rule that only two children should be reared in a family' (ibid; cf. Munro, 1982:20-21). Whilst infanticide was common this was counterbalanced by extensive adoption (Brady 1972:29-34; 1975:117). In this control of the population Tuvalu was very similar to both of the atoll states to the north, the Marshall Islands (Country Report No.8) and Kiribati (Country Report No.7) and, as there, traditional forms of population control were effectively abolished by missionaries so that in the second half of the Nineteenth Century the population grew more rapidly.

Between 1901 and 1911 there was a sharp decline in the resident population of Tuvalu, a result of both rising mortality levels and the establishment of migration to Ocean Island (Banaba) to the extent that concern for the Tuvaluans demographic future became grounds for considerable pessimism. However the period of decline was brief and from 1910 onwards the population of Tuvalu grew steadily (Tables Five and Six).

Table 5. Population of Tuvalu.

1876	2,497
1887	2,902
1901	3,543
1911	3,080
1921	3,429
1921	3,994
1947	4,487
1963	5,444
1968	5,782
1973	5,887
1979	7,349
1983	8,300 (estimate)

Source: Munro and Bedford, 1979:4-10.

A moderately large proportion (33%) of the total Tuvaluan population was aged under 15 in 1979; this is typical of many countries in the Third World but lower than several other countries in the South Pacific region. Moreover the last census recorded an 'indentation' in the age-sex pyramid for children under ten due to a reduction in fertility, probably as a result of family planning (Macrae,1980a:20). The fertility rate in Tuvalu declined

Table 6. Population, 1947-1979.

	1947	1963	1968	1973	% Change 1968-1973	1979	% Change 1973-1979	Population Density Persons/ sq.km.
Nanumea	746	1,051	1,076	977	-9.2	844	-13.6	218
Nanumanga	524	544	585	587	0.3	605	3.0	218
Niutao	644	797	796	907	13.9	866	-4.5	342
Nui	490	528	569	569	-	603	6.0	213
Vaitupu	728	823	876	948	8.2	1,273	34.3	227
Nukufetau	524	655	646	620	-4.0	626	0.9	210
Funafuti	528	687	826	871	5.4	2,120	143.4	760
Nukulaelae	282	317	354	343	-3.1	347	1.2	191
Niulakita	21	42	54	65	20.4	65	-	154
TUVALU	4,487	5,444	5,782	5,887	1.8	7,349	24.8	287

steadily between 1965 and 1979 producing in 1979 a crude birth rate of 23.7 per thousand. A family planning programme effectively began in 1968 and had considerable success until 1973 when there was an apparent decline in the proportion of acceptors at least until 1979 (Macrae, 1980b:39). In 1979 the proportion of women practising family planning from the eligible group was 21.4%. More recently the proportion has been estimated at 28% (A. Seluka, pers. comm. 1983). The proportion of acceptors in 1979 was twice as high in Funafuti as it was on other islands (Macrae, 1980b:40). The fall in fertility rate has paralleled a fall in mortality rate, especially since 1976 when the establishment of an administrative centre at Tarawa enabled improved service to the outer islands and medical services, water supplies and sanitation were also improved (Macrae, 1980c:43-44). There is some evidence of increasing fertility since 1983 (A. Seluka, pers. comm. 1983). The crude death rate in 1979 was 15 per thousand and the infant mortality rate 42 per 1,000. The combination of low fertility and mortality rates has resulted in a current rate of natural increase of less than 1% per year; without the further extension of family planning techniques, the Tuvaluan population will continue to grow. The current Development Plan is aimed at doubling the number of acceptors (to 40% of women in the eligible age groups) by the end of the plan period in 1983 (Tuvalu, 1980a:122). There is little indication that this has been even partially successful and much evidence of an indifferent response to family planning. The de facto population of Tuvalu was estimated at 8,300 in mid-1983, a total which might reach 8,500 before the end of the year (A. Seluka, pers. comm. 1983). Population censuses were conducted on the islands of Funafuti, Nukulaelae and Nukefetau in May-June 1983 but the result were not available late in 1983.

Migration

As in other parts of Polynesia, and nearby parts of Micronesia, Nineteenth Century migration from Tuvalu was characterised by blackbirding to South America from the early 1860s (Munro and Bedford, 1980:6; Munro, 1982:63-70; Maude, 1981; Connell, 1980b) especially from the two southern atolls of Nukulaelae and Funafuti. About 445 labour migrants were taken from Tuvalu; this had some effect on population decline and also occurred at the same time that introduced diseases also slowed population growth. Blackbirding gave way to rather more controlled movements to the plantations of Tahiti, Fiji, Hawaii, Samoa and Queensland. In general labour migration in the Nineteenth Century was not as important, or as dramatic in its effects, in Tuvalu (cf. Munro, 1982:269-283) as in many other parts of the South Pacific region.

In 1900 labour migration to Banaba began and there was no shortage of recruits for contract labour migration (Munro and Bedford, 1980:8). In that first decade the numbers employed in phosphate mining in any given year ranged from between 60 to 120 and enthusiasm in northern Tuvalu for overseas work was such that in 1909 the Assistant High Commissioner limited the number of Nanumean men overseas at any one time to twenty-five and prohibited all recruiting from Nui and Nanumanga for two years, partly out of concern for the incidence of dysentery amongst both migrants and resident population and partly because of concern over the 'deficiency of grown men' (Chambers, 1975:51). Labour migration resulted in a spate of church building in the early years of the century (Munro and Bedford, 1980:8), which was probably a result of almost all the early missionaries to Tuvalu being Samoans, much early migration to Samoa (Chambers, 1975:99), and the introduction of a range of infectious diseases which resulted in significant

population decline (op cit:45). After 1916, and until the war, the numbers living outside their usual place of residence often exceeded 250 people, and sometimes exceeded 600. A significant number of these were probably outside Tuvalu, Kiribati and Nauru, since in 1932-1933, of 611 Tuvaluans away from the usual place of residence, 277 were registered as visitors elsewhere in the group and 334 were elsewhere (ibid). In the 1920s there were wage disputes in Nauru and for some years very little recruitment from Tuvalu (Faaniu, 1983:124). There has been a history of migration, both internal and external, in Tuvalu and as elsewhere in the South Pacific region, elites were always relatively mobile; the 'teachers, pastors and government men' (Brady, 1975:114) travelled widely. For example, the first Prime Minister, Toaripi Lauti, was born in Papua and his Christian name is that of the language group where his father was a missionary. In terms of contemporary migration these historical events were an important prelude.

Historically the island of Niulakita had no resident population and was worked as a copra plantation; despite its reliable rainfall and luxuriant vegetation problems of access to the island limited its potential for permanent settlement. After 1949 it was proposed to resettle Niutao islanders since that island was the most densely populated but, in practice, settlement has essentially amounted to the continued running of the plantation with semi-permanent groups of Niutao copra workers (Bedford, 1967) who generally remain on Niulakita for a two-year contract period. Consequently the island does have a balanced population structure.

Within Tuvalu there is also at least one example of internal migration within an atoll similar to several cases recorded in Kiribati. Before 1972 there were around 100 people living on the southern most island, Funafala, in Funafuti but after Hurricane Bebe struck most people moved to Funafuti and by 1976 it was completely uninhabited (Flynn and Makin, 1976: 66) as migrants sought access to services, welfare and job opportunities. By 1981 three or four households had however returned to the atoll and in 1982 it was noted that a small village was being re-established there (Tuvalu, 1982a:3). More generally, a more dispersed pattern of settlement was characteristic of Tuvaluan settlements before colonial times during which nucleation was stressed as administration policy (Brady, 1972:6). Thus at micro-scale the same trends towards concentration have been repeated on at least one individual atoll, even though population pressure and unemployment are now reversing those trends.

In terms of the availability of data on contemporary migration Tuvalu is perhaps better served than any other state in the South Pacific region although there is relatively little information on the return migration of Tuvaluans following independence. Since 1963 censuses have been essentially conducted at five year intervals, so there is now a series of four censuses, each of which records population by 'home island' and 'place of residence' and for each of which, and especially for the most recent census, there is some analysis within the census volume of the structure of migration and its significance. For the 1973 census this data has been examined in even greater detail in an academic thesis (Wilson, 1979) and the 1979 census data on migration and related issues is currently being analysed in another academic thesis by Wit. The principal limitation to the 1979 data is that it refers to a situation before the closure of the Banaba phosphate mine which resulted in substantial return migration to Tuvalu. In common with all census data it cannot do more than provide crude indications of the rationale for and impact of migration. Much of the value of the census data on migration relates to the utility of the concept of 'home island' defined, as in the Kiribati census, as 'the island which each person regards as his

true home, even if it is different from the island where he was born' (cf. Wit, 1980: 51). For the majority of the population this is equivalent to the island of birth but for a growing number of Tuvaluans it has lost its importance as some have never lived there (ibid). Increasingly therefore estimates of migration based on 'home island' data overestimate the significance of migration; however even in 1979 only ten residents of Funafuti and 58 residents of other islands had not resided on their 'home island' (Wit, 1980:56).

Table 7. Lifetime Migration, 1963.

	Numbers Enumerated on their Home Island per thousand native to each island		Numbers Enumerated on their Home Island per thousand enumerated there	
	Males	Females	Males	Females
Nanumea	624	714	931	935
Nanumanga	606	730	971	957
Niutao	612	783	979	974
Nui	608	697	877	884
Vaitupu	606	730	842	921
Nukufetau	647	786	935	925
Funafuti	669	714	809	874
Nukulaelae	665	782	907	932
TUVALU	626	739	896	922

Source: McArthur and McCaig, 1964:41.

The first comprehensive review of migration in Tuvalu (and Kiribati) was that of the 1963 census which recorded 'home island' (as opposed to island of birth) and place of residence; Niulakita was excluded from the analysis since none regarded that as a home island. Lifetime emigration from the islands of Tuvalu scarcely varies from atoll to atoll (Table Seven) whilst the greater rate of emigration for males than females is also virtually the same from atoll to atoll. However immigration rates are quite different; Niutao (with very high population pressure on resources) experienced very little immigration whilst the colonial administrative centre, Funafuti, experienced the greatest immigration, followed by Vaitupu and Nui. Five years later, at the 1968 census, and again in 1973, the situation was not greatly different although, firstly, the increase in emigration was apparent and, secondly, there was increasing differentiation between islands (Table Eight) thus a pattern of internal population movement to Funafuti was already apparent. Nevertheless the overall growth of Funafuti, even in the twenty-five year period from 1947 to 1973, was unimpressive; Funafuti grew from 528 to 871 whilst the population of Tuvalu as a whole grew from 4,487 to 5,887. Funafuti nevertheless grew more than twice as fast as Tuvalu. For the whole of this time period international migration from Tuvalu was vastly more important in its scale and significance than internal migration. Tuvalu remained essentially an outlying district of the Gilbert and Ellice Islands.

Between 1973 and 1979, the census period that covered the critical period of separation, Funafuti and Vaitupu were the only islands that experienced a population growth rate higher than that which could be explained by natural increase. All the other islands grew at rates of under

1.5% whilst Nanumea and Niutao actually lost population (Walsh, 1981:183). Vaitupu, the island with the only secondary school to which students and staff had been repatriated from schools in Kiribati, and Funafuti, the new capital, were the only islands with net migration gains (Table Nine). Funafuti had a low out-migration rate with only 81% of its adult population enumerated elsewhere and a high in-migration rate with 67% claiming a home island other than Funafuti. All other islands, including Vaitupu, had high levels of out-migration (typically over 25%) and, except Vaitupu with an in-migration rate of 349 (34.9%), low in-migration rates (Walsh, 1981: 186). Whilst the data suggests migration from home island to Funafuti (and also Vaitupu) in practice most movement to Funafuti has followed employment overseas rather than being directly from the home island. For the population aged 15 and over 56% had been resident in Funafuti for less than three years, an indication of the recency of urbanisation. Thus, even during the principal period of repatriation, the minimal attractiveness of the outer islands is apparent in their inability to attract population including those who had earlier migrated from those islands and had little chance of obtaining wage or salary employment in Funafuti (and, to a lesser extent, Vaitupu). One effect of significant migration to Funafuti is the moderately high male-dominated sex ratio; in the main working age groups (15-29 and 30-44) Funafuti had sex ratios of 107 and 109 compared with 68 and 49 in the other islands (op cit:184-5). This sex imbalance in migration, which is unusual in Polynesian states but is partially a legacy of colonial labour migration, may have contributed to the national decline in fertility. Of all migrants enumerated in Funafuti 74% were adults (15 years and over) thus the movement to Funafuti was predominantly one of adult males in search of or taking up employment. Since in most Polynesian contexts wives and children tend to subsequently follow their husbands this suggests that the 1979 situation represents a transitional stage in the process of urban growth.

Table 8. Lifetime Migration, 1968.

	Numbers Enumerated on their Home Island per thousand native to each island		Numbers Enumerated on their Home Island per thousand enumerated there	
	Males	Females	Males	Females
Nanumea	611	670	941	943
Nanumanga	525	609	931	901
Niutao	517	675	949	952
Nui	606	675	905	885
Vaitupu	563	636	780	898
Nukufetau	562	687	937	961
Funafuti	611	677	694	690
Nukulaelae	600	761	866	866
TUVALU	572	667	860	884

Source: Zwart and Groenewegen, 1970:60-62.

Some 2,194 people, that is 28% of the de facto population (Table Ten), were not resident in their home island in 1979. In addition, there were 972 Tuvaluans in Kiribati (including 318 on Banaba), 714 on Nauru and 341 elsewhere overseas, making a total of 2,027 expatriate Tuvaluans (see below). Of the total de jure population of 9,376, 45% were therefore either

Table 9. Inter-Island Lifetime Migration, 1979. (Population aged 15 years and over).

	Usually Resident	Home Island Population (a)	Born and Resident on Home Island	Out	In	Net	OMR (b)	IMR (c)
Nanumea	587	913	530	383	57	-326	419	97
Nanumanga	393	540	348	192	45	-147	356	115
Niutao	583	816	525	291	58	-233	357	99
Nui	414	448	349	99	65	-34	221	157
Vaitupu	799	693	520	173	279	106	250	349
Nukufetau	433	629	385	244	48	-196	388	111
Funafuti	1,410	501	463	38	947	909	76	672
Nukulaelae	248	272	208	64	40	-24	235	161
Niulakita	36	91	-	91	36	-55	1,000	1,000
TUVALU	4,903	4,903	3,328	1,575	1,575			

(a) Home island (on which migration is calculated) does not necessarily equate with place of birth.
(b) Out-migration Rate (OMR) is the number of out-migrants divided by the population born in a place multiplied by 1,000.
(c) The Immigration Rate (IMR) is the number of immigrants divided by population enumerated in a place multiplied by 1,000.

Source: Walsh, 1981:186.

Table 10. Lifetime Migration of Tuvaluans.

Island of Origin	Out-Migration			In-Migration			Net Migration		
	M	F	T	M	F	T	M	F	T
Nanumea	275	271	546	27	39	66	-248	-232	-480
Nanumanga	150	156	306	24	28	52	-126	-128	-254
Niutao	245	191	436	21	40	61	-224	-151	-375
Nui	77	72	149	34	28	62	-43	-44	-87
Vaitupu	109	127	236	206	268	474	+97	+141	+238
Nukufetau	191	177	368	22	31	53	-169	-146	-315
Funafuti	25	32	57	723	592	1,315	+698	+560	+1,258
Nukulaelae	47	49	96	23	24	47	-24	-25	-49
Niulakita	-	-	-	39	25	64	+39	+25	+64
TOTAL	1,119	1,075	2,194	1,119	1,075	2,194			

Source: Wit, 1980:52.

Table 11. Lifetime Migration (Population aged 15 years and over) by Home Island and Sex.

| Island of Usual Residence 1979 | HOME ISLANDS | | |

living in Tuvalu on an island other than their home island or they were living overseas. This represents an unprecedented high level of mobility (Walsh, 1981:185) caused by the combined influences of separation and independence and the development of the new capital on Funafuti. Between 1975 and 1976, and in the subsequent years, the pattern of internal migration in Tuvalu changed significantly. The secession of Tuvalu from the Gilbert and Ellice Islands Colony resulted in substantial return migration of public servants and others from the Gilbert Islands (Kiribati) to Tuvalu and especially to Funafuti. In one year the population of Funafuti almost doubled and there has been a steady growth ever since.

More detailed data on the structure of lifetime migration (Table Eleven) demonstrates the dominance of Funafuti and, to a much lesser extent, Vaitupu in all internal migration moves and consequently the extremely limited migration between other islands in Tuvalu. It also demonstrates the extremely limited extent of migration away from Funafuti; of 501 people within Tuvalu, claiming Funafuti as their 'home island', only 38 (8%) were enumerated on other islands. Half of these were on Vaitupu since some of these migrants were children involved in 'return migration' with their parents. This extremely small percentage indicates the very limited attraction of the outer islands, and hence the considerable problems attached to any policy oriented towards decentralisation and outer island development. Islands that have experienced high levels of emigration, especially Nanumea and Niutao, have a wider spread of emigrants (many marrying into other islands) but, in general, the wide dispersion of the islands of Tuvalu has contributed to a considerable isolation for each island even though most have strong traditional ties with at least one other island.

International Migration

In the post-war years there were two important changes in the characteristics of international migration. Firstly, Britain decided to develop South Tarawa as the centre of the Gilbert and Ellice Islands Colony and from the late 1940s onwards there was a steady increase in population and jobs as an urban centre emerged. Tuvaluans took part in the migration to new urban employment; in 1947 100 Polynesians (virtually all Tuvaluans) were enumerated on Tarawa compared with 4 in 1931 (Munro and Bedford, 1980: 11). At the same time increasing numbers of Tuvaluans were taking up employment elsewhere both on Banaba, where there was a small 'resident' Tuvaluan population in the early 1960s (ibid), alongside contract workers, and to a much lesser extent on the copra plantations of the Line Islands and elsewhere (cf. Table Ten). Secondly, in the 1950s preference began to be given to I-Kiribati and Tuvaluans for employment in Nauru (see Country Report No.9). In this decade particularly the number of Tuvaluans working outside the country expanded considerably, and the importance of Nauru and South Tarawa grew in comparison with other destinations although for many years the number of Tuvaluans on Banaba and Nauru was much the same.

In conjunction with the 1973 census an attempt was made to record the numbers of Tuvaluans (and I-Kiribati) overseas. This information was derived from the record of birth cards which were returned from the original 'home islands' and indicated the believed location of the absent individuals (Table Twelve). Apart from Tuvaluans in Kiribati (especially Tarawa and Banaba) and Nauru two groups are particularly apparent, firstly, the resettled population in Fiji (mainly at Kioa but with a few also at Rabi) and, secondly, a surprisingly large group in Samoa most of whom were at

school, a result of traditional mission links with Samoa. The significance of the overseas group is unknown especially because their length of residence overseas is unknown; it is possible that there may be a relatively long-established group who have migrated there through Tokelau. Whilst the numbers recorded in Table Twelve are likely to be a slight underestimate since, firstly, those who could not be identified through the birth card were most likely to have been emigrants and, secondly, some children of Tuvaluan origin may have been born overseas and not recorded, the table does indicate that outside the resettlement migration (which is now impossible) in Fiji (and to a much lesser extent the Solomon Islands) and migration to Nauru and Kiribati, emigration is of very slight significance for Tuvalu. Since Kiribati and Nauru are both declining as sources of employment overseas this lack of diversification in overseas migration is of considerable importance.

Table 12. Tuvaluans Overseas, 1973.

Kiribati	1,989
Nauru	619
Fiji	237
Solomon Islands	37
Marshall Islands	26
Vanuatu	1
Samoa	129
Tonga	2
Tokelau	25
Australia	7
New Zealand	25
Hong Kong	10
United Kingdom	9
North America	4
West Germany	2
TOTAL	3,122

Source: Gilbert and Ellice Islands, 1974:iii.

A detailed examination of the number of Tuvaluans overseas was undertaken from the 1973 census data (Tables Twelve and Thirteen); the two separate tabulations give slightly different results according to the numbers considered as being essentially permanent overseas migrants. Making the assumption both that Tuvaluans on Kioa (Fiji) will not return to Tuvalu, but also that some Tuvaluans are not recorded in Table Thirteen, Knapman et al suggested that 3,021 represented the upper level of Tuvaluans who could repatriate (1976:7). Since many of these are unlikely to have returned from Kioa and the figure for Nauru is an overestimate this is certainly an upper limit but in comparison with the 1973 resident population of 5,887 (which included some non-Tuvaluans,principally 108 I-Kiribati) it represented a substantial potential burden on the Tuvalu economy.

In the mid-1970s the separation of Tuvalu from the Gilbert Islands resulted in the substantial return migration that had been feared, both as a result of the return migration of Tuvaluan public servants from Tarawa (and to some extent separation was a response to Gilbertese pressure on the limited number of jobs in the public service that were disproportionately occupied by Tuvaluans) and the return migration of phosphate miners from Banaba, especially as phosphate mining there ultimately ended in 1979.

Table 13. Estimated migrants outside Tuvalu in 1973.

Migrants at	Total	Less than 15 years of age	Over 15 years of age			Of which estimated active in the cash economy		
			T	M	F			
Banaba (Ocean Island)	652	308	344	166	178	165	151	14
Tarawa	1,227	412	815	430	385	308	238	70
Other Islands in Gilberts Group	141	49	92	47	45	10	8	2
Line Islands	77	32	45	29	16	27	26	1
Ships	5	-	5	5	-	5	5	-
Sub Total	2,102	801	1,301	677	624	515	428	87
Nauru (a)	730	345	385	186	199	185	169	16
Ocean going ships	189	-	189	189	-	189	189	-
TOTAL	3,021	1,146	1,875	1,052	823	889	786	103

(a) The data on Nauru is inaccurate in that 619 (Table 12) is much more likely to be the appropriate figure (when over 220 were then employed on Nauru). The number on ships is different from the 142 recorded by Munro and Bedford (1980:11) and no estimate is given for non-settlers, temporarily absent from Tuvalu, elsewhere in the South Pacific or beyond.

Source: Knapman et al, 1976:26.

Comparison of the 1973 and 1979 data on numbers overseas is difficult; whilst the numbers in Nauru have increased from 619 in 1973 to 714 in 1979, and the numbers on ships from 194 to 255, other comparisons are less easy. In 1973 there was a Tuvaluan population in Kiribati of 1,989; the 1979 Tuvalu census records a 1978 Tuvaluan population in Banaba of 318 (169 males and 149 females) with the implication that this group was still there in May 1979, but was certainly not there at the end of 1979. The 1978 Kiribati census records a total population of 817 Polynesians in Kiribati, and it is usually assumed that most of these were Tuvaluans; of these 324 were on South Tarawa. Some may have returned by 1979 and although the 1979 Tuvalu census does not record those who are considered to be 'settlers' overseas (Tuvalu, 1980b:177) it is implausible that all Tuvaluans in Kiribati were settlers. The 1979 Tuvalu census also records a number of other migrants (75 students and 11 others) for whom there is no comparison in the 1973 census. Overall, in this critical period, there appears to have been a reduction in the Tuvaluan population of Kiribati by about 1,200 (with another 300 migrants returning from Banaba later in the year); this return migration was only marginally offset by increased migration to Nauru, increased employment on overseas shipping and increased numbers in education overseas.

There are now only two significant groups of Tuvaluans employed overseas - those in Nauru and those on overseas ships - with a few other Tuvaluans temporarily employed elsewhere (including New Zealand) or in education overseas. Numerically much the most important group are those in Nauru. The number of Tuvaluans increased during the 1970s and now appears to have stabilised around 710 (Table Fourteen); no new job opportunities in Nauru are likely to occur so that this number can only decline until phosphate mining is phased out completely at the end of the present decade.

The second current area of overseas employment is as seamen. In 1973 no more than 5 Tuvaluans (according to the census data) were employed overseas; by 1979 this had increased to 255 but by 1982 was reported to have declined to about 160 (150 of whom were graduates of the Tarawa Marine Training School). There are now four years of graduates from the Tuvalu Maritime Training School, totalling 68 seamen of whom only 10 have found jobs. At that time the government were considering closing the school because of the problems of obtaining overseas employment (Knowles, 1982:5). However later in 1982 the number employed had increased to 15, with the Swire shipping group operating out of Hong Kong, and Swire were reported to have asked for 50 more seamen (Anon, 1982a:48). As in Kiribati it has been extremely difficult to establish and diversify overseas employment opportunities for seamen and the prospects of significant improvements in the situation are bleak.

Whilst the government of Tuvalu has sought to expand and diversify employment opportunities overseas current contractions of the global economy have made the task extremely difficult. However in mid-1977 a group of 12 Tuvaluans obtained employment in New Zealand under a similar work scheme to that operated between New Zealand and the two other Polynesian countries of Tonga and Western Samoa. These were effectively the first group to go beyond the traditional nearby central Pacific work places of Nauru and Kiribati. However, even in 1973, there were 25 Tuvaluans in New Zealand and three years later it was noted that 'quite a number of Tuvaluans already live in New Zealand (some at least ostensibly as Tokelauans who are New Zealand citizens)' (Crocombe, 1976:3). Since then the New Zealand economy has experienced little growth and the Tuvalu work scheme collapsed, following trade union pressure in New Zealand, unlike those from Tonga and

Table 14. Tuvaluans in Nauru.

	1966	1973				1981			
	Males	Males	Females	Children	Total	Males	Females	Children	Total
Nanumea	32	35	19	42	96	52	22	42	116
Nanumanga	21	29	16	42	87	37	14	27	78
Niutao	30	39	20	38	97	58	15	31	104
Nui	11	23	13	30	66	38	14	21	73
Vaitupu	30	38	22	49	109	54	28	53	135
Nukefetau	13	28	17	36	81	41	12	20	73
Funafuti	25	26	15	24	65	52	15	30	97
Nukulaelae	2	9	3	6	18	14	8	12	34
TOTAL	164	227	125	267	619	346	128	236	710

Source: Bedford, 1967:124; Nauru Phosphate Corporation, 1981.

Western Samoa which have been maintained at a reduced level. Whilst four Tuvaluans went officially to New Zealand in 1981 these were to work in the factory of the Tuvalu honorary consul in New Zealand (A. Macdonald, pers. comm, 1981). A number of Tuvaluans remain in Auckland and elsewhere in New Zealand. Thus what once appeared a new avenue of emigration appears to have been at least temporarily closed off again.

A substantial number of Tuvaluans emigrate for education; in 1982 Knowles estimated that over 200 were attending secondary schools in Fiji, Tonga and Western Samoa (1982:7). Since this total was only 69 in 1976 (Knapman et al, 1982:36) this is likely to be an overestimate. Smaller numbers are in tertiary education; in 1976 there were eight students at USP, 10 at Tarawa Teachers College, 4 at the Fiji School of Medicine and 28 elsewhere (Knapman et al, 1976:37). Currently between 10 and 15 students a year go on to tertiary education (Knowles, 1982:7) primarily at USP in Fiji, and most of these are expected to return to Tuvalu. There has been much debate over the role of tertiary education, since few graduates can obtain appropriate employment in Tuvalu, but present policy is to maintain overseas training even if jobs cannot be found (Tuvalu News Sheet, 179, 31 March 1983).

During the 1930s extensive population pressure on resources in the southern Gilbert Islands had resulted in resettlement to the Phoenix Islands (see Country Report No.7) but it was not considered that there was comparable pressure in Tuvalu. However there was considerable interest in resettlement from Tuvalu. In 1945 a proposal had been made to resettle Tuvaluans on the two southern Line Islands of Flint and Caroline (Bedford, 1967:xxxi) but it was never taken further. A proposal to settle Nanumanga islanders in Tonga was also developed and, whilst Nanumangans were willing to go, Tongans eventually opposed the scheme on the grounds that the Tongan islands that were then relatively thinly populated might subsequently be required for resettlement within Tonga (op cit:xxxiii). Although a small number of Tuvaluans from Niutao took part in the primarily I-Kiribati resettlement in Solomon Islands (see Country Reports Nos.7 and 16) the principal resettlement of Tuvaluans was in the Vaitupu settlement of Kioa, Fiji. This resettlement was not motivated by population pressure, since in 1946 Vaitupu had the lowest population density in Tuvalu, but was instigated by the former District Commissioner of Tuvalu, D.G. Kennedy, who suggested that the Vaitupuans use accumulated savings (from war-time-employment) to purchase an island as an investment against overpopulation in the future. Principally for prestige the Vaitupuans purchased Kioa, a small island off the east coast of Vanua Levu and between 1947 and 1963 eight waves of settlers arrived in Kioa; by 1963 the total population (including some 'native-born') was 235 at which point the Fiji administration restricted entry to Kioa until there had been further development there (Bedford, 1967:88). In 1947 the inhabitants of Nanumea, the island with the largest population, also decided to purchase land in Fiji (Wakaya island) and although they established a fund to purchase land there, they later decided not to proceed with any land purchase (Bedford, 1967:viiixl). By early 1967 the population of Kioa had grown to 299, although between 1954 and 1964 eighty-one Vaitupuans had returned to Tuvalu (op cit:110), but after that return migration was almost non-existent. Some of the residents of Kioa now live elsewhere in Fiji. A small number of Tuvaluans have also resettled on the island of Abemama, in Kiribati, and like the settlers in Fiji are now effectively permanent residents of another country rather than migrants.

In contrast to international migration from Tuvalu there has been very little migration into Tuvalu, and much of this has been from neighbouring Kiribati. In 1973 there were 172 Pacific Islanders (of whom 108 were I-Kiribati) and in 1979 there were 152 other Pacific Islanders in Tuvalu (most of whom were almost certainly I-Kiribati), many of whom were married and/or settled in Tuvalu, rather than being labour migrants. In 1973 there were only 19 non-Pacific Islanders in Tuvalu (10 of whom were on Funafuti) whereas between 1973 and 1979 the number grew to 78 (of whom 58 were on Funafuti and 17 on Vaitupu); thus the transition to independence, the establishment of a new national public service and the expansion of services had created a number of new, specialised positions that could not be filled by Tuvaluans. Whilst this increase in the number of Europeans has been particularly dramatic it does not however represent a very large migrant population thus the prospects for localisation are extremely limited.

The Rationale and Impact of Migration

Despite the significance of migration in Tuvalu there have been no detailed socio-economic studies of migration in Tuvalu, other than those on the rather unusual case of Vaitupu resettlement of Kioa and data provided by Chambers (1975) on Nanumea, an island characterised by relatively high levels of emigration although otherwise little different from elsewhere in Tuvalu. Just as in Kiribati fundamental economic issues are at the heart of migration;

> 'employment (or the search for it) constitutes the overwhelming reason for residence away from home...periodic employment off their home islands has become part of the expectations of most...The incentive to such temporary migration is definitely economic. The lure of bright lights and a desire to see new islands seem to play a relatively small part in motivating it' (Geddes et al, 1979:20).

The principal explanation for migration is the almost complete absence of wage and salary earning opportunities on all the outer islands, and until recently on Funafuti, and the availability of such opportunities overseas. Since the search for employment and high wages dominates individual decisions over migration, Banaba and Nauru were (and are) particularly preferred locations because of higher wages and the opportunity to accumulate goods and savings (Chambers, 1975:101; Geddes et al, 1979:20) whereas employment in Funafuti (or Tarawa) was less favoured. Limited cash-earning opportunities on most islands have ensured that most capital goods can only be obtained by employment outside home islands; 'coupled with household dependence on remittances income [this] provides a powerful incentive for ensuring that young adults are strongly encouraged to obtain wage labour off the home island' (op cit:83). This situation is unlikely to change in the near future.

One of the most outstanding characteristics of migration in Tuvalu has been the circularity of migration; this has been described in the case of Tuvalu,

> 'Employment was rarely continuous, more often consisting of scattered work periods throughout a man's first 20 years of maturity. This resulted in a constant rotation of the workforce through the total population and maintained community cohesion....Nanumeans tend to view periodic off-the-island employment as an enjoyable interlude

> in a basically subsistence life...for most Tuvalu people overseas employment is a temporary experience to be enjoyed and valued for itself, as well as for the money it produces' (Chambers, 1975:100-101).

Consequently a very high proportion of adult men had both migrated from and returned to their home island. In Nanumea 97% of those aged 45 and older had been off the island to work for some period in their lives; the main exceptions were those who were physically or mentally handicapped or the sole support of aged parents (op cit:100). The century-old tradition of labour migration was thus maintained. Not only has there been an ideology of circularity but this has been allied to a tradition in which all young men were expected to migrate and return with or remit a proportion of their income. The decline in formal sector employment is likely to have influenced a parallel decline in circular migration (as it appears to have done in Kiribati), as jobs have given way to careers, so that increasingly access to employment has become much more difficult.

The focus on resettlement in the early post-war years emphasized the extent to which Tuvalu (and Kiribati) were perhaps the only two states in the South Pacific region where there has been a detailed evaluation of the extent to which the country could be regarded as 'overpopulated'; an examination undertaken by Cartland in 1947 suggested that only Niutao island in Tuvalu exceeded the optimum densities (of 247 persons per sq.km.) that he had calculated (see Country Report No.7). At the end of the 1960s Brady made further calculations (in the case of Nanumanga) and also suggested that the optimum density would be something less than about 247 persons per sq. kms. (1974:167) which was then exceeded by Niutao, Nanumea and Funafuti. However, firstly, factors such as highly fragmented and unequally distributed land holdings emphasized this shortage of land; secondly, there has subsequently been an increased demand for cash following rising expectations. Adopting more complex criteria, including the maldistribution of landholdings, Brady concluded that land hunger was more apparent than real but was greatest in Niutao, followed by Funafuti and Nanumea, and least in Nukulaelae, followed by Vaitupu and Nui (1974:171-174). Overall then population densities in Tuvalu are high, and currently close to or greater than this theoretical optimum on all but the two southern islands of Nukulaelae and Nui. Population pressure alone is not a factor influencing migration; however, in combination with other factors - such as access to wage employment and demand for cash income - it is an influential factor especially on those islands where land hunger is greatest. For example, in Nanumea, the most land-short household had several family members living off the island, including three brothers in Fiji, Samoa and New Zealand, all of whom appeared unlikely to return to Nanumea (Chambers, 1975:80). The low emigration rate from Nukulaelae is explained not only by relatively low population pressure on resources but also by long-term administrative discouragement of out-migration because of the small size of the island's population (op cit:99). Consequently labour migration from Tuvalu has been generally considered as both a 'safety-valve' (Knapman et al, 1976:7) and a means of alleviating pressure on local resources (Brady, 1975:135), in the sense that in the 1960s and early 1970s it absorbed a large part of the increased Tuvaluan population. No longer is this so.

There is no indication that there are strong social influences on migration in Tuvalu; although the enjoyment of travel, a change of scene, meeting and working in a new place and greater personal sophistication all add to the attractiveness of labour migration (Chambers, 1975:101) they do

not constitute reasons for it. As the general availability of wage labour jobs has declined it is probable that as access to jobs becomes more difficult, social influences (such as education level) will exert, and have already exerted, a stronger influence on the structure of migration. In terms of internal migration, the small size of Funafuti, and consequently the minimal difference between social life there and in the outer islands, has never significantly contributed to immigration; whilst there is now a greater range of amenities on Funafuti, the range is still limited and the fact that the only secondary school is on Vaitupu and the cost of living in Funafuti is very high severely limits the attractions of urban life. Migration in Tuvalu is thus principally influenced and oriented by fundamental economic issues.

The principal influence of emigration, in the context of labour migration outside Tuvalu, was through the income earned and sent or brought back to Tuvalu. The significance of remittances in Tuvalu can scarcely be underestimated both as a contribution to the income of much more than half of all households (Table Four) and as a substantial cash input into the national economy. The extent of remittances to Tuvalu is considerable; recorded transfers in 1977 were calculated at $209,395 and in 1978 at $224,275 (Tuvalu, 1980a:9) but this is known to be an underestimate, because further remittances are in cash or in kind. Thus in 1975,

> 'Telegraphic money orders (telmos) remitted by overseas workers are the single most important contribution to the Tuvalu outer island economy in most years and the present standard of living has a direct relationship to telmo level' (Chambers, 1975:101).

Thus, during the 1970s, when there was substantial migration to both Banaba and Nauru remittances were more important than they are now. Whilst there appears to be no available data on contemporary remittance levels it is probable that they have fallen substantially from the end of the 1970s both as employment opportunities outside Tuvalu declined sharply and as work in Funafuti tended to become a career (alongside an increase in the cost of living). This trend is likely to have put some pressure on outer islands to ensure the maintenance of the traditional subsistence economy.

Whilst there are no studies on the use of remittances, especially as opposed to other sources of income, social control over the use of remittances ensures that remittances contribute much less to individualism than they do in other parts of the South Pacific region, especially outside Polynesia. Thus:

> 'Employment....directly benefits the community as a whole. All workers are supposed to contribute to the island fund on a sliding scale, giving a set proportion of their wages. In 1974 half a month's salary per year was set as the standard contribution but in the past this has sometimes been as high as double that. Career workers, especially those in Tarawa who must cope with a high cost of living, tend to feel this rate is too high but few individuals have actually refused to contribute....The island fund is invested overseas and its interest is used mainly for public building projects that benefit the whole island' (Chambers, 1975:102).

In the previous five years Nanumeans have given nearly $20,000 to the island fund (ibid) thus to a much greater extent than in almost all other South Pacific contexts remittances have contributed to development of the whole community. In this context then migration does contribute to development as well as simply an increase in the material standard of living. In these terms, and because migration is a relatively temporary phenomenon and hence there are few socially disruptive problems, Chambers concluded that labour migration has been basically beneficial (op cit: 101, 102) and that its main drawback has been the problem of high dependency ratios, with a population composed of mainly the young and the old. Whilst this causes some social problems (op cit:110) there is no apparent shortage of labour for subsistence needs (op cit:111), or for copra production. Moreover Chambers concluded that there was neither a relationship between household incomes and amount of time devoted to subsistence agriculture or between the level of remittances and the input into subsistence agriculture (1975:115). Predictably social change has also followed migration in a similar way to that in other Polynesian societies and, at least on the evidence from Nanumea, the effects of migration have been more uniformly beneficial in Tuvalu than in most other parts of the South Pacific.

Most migration, especially in the era of labour migration, involved unskilled employment and even those who worked in skilled employment overseas (and more recently in Funafuti) have found limited opportunities to directly use their skills on their home islands. There has been much return migration from Banaba and Nauru and children born there find it hard to adjust on their return; they have no experience of traditional fishing and agricultural activities and are sometimes 'rejected' by Tuvaluan society. Indeed some adults do not wish to return to Tuvalu from Nauru (see Country Report No.9) because of a preference for wage employment, a dislike of hard agricultural work and even a dislike for traditional food (I. Elisala, pers. comm, 1981). Return migration from Kiribati in the mid-1970s created considerable problems for the national economy, but Independence, the establishment of a new public service and related construction activity absorbed some of this return migration. The prospects for economic development in Tuvalu in the present decade are so poor that it is unlikely that any significant new employment will be created whilst some present jobs will be lost. Consequently the demise of the Nauru phosphate economy will produce a considerable crisis for the Tuvaluan economy unless new overseas employment opportunities can be identified. In this context then migration does cause social and economic disruption and this will be intensified following the return of more workers from Nauru, and especially those who have been there much longer than the usual three or six year period.

The rapid growth of a new urban centre in Funafuti has also had a substantial impact on the socio-economy of Tuvalu. Even by 1976, with a population of just under 1,500, Funafuti had 'on a small scale all the characteristics of a rapidly developing capital city in a developing country' (Howard, 1976:5) and by 1979 the main island, Fongafale, had a population density of around 1,300 per sq.km. (Tuvalu, 1982a:2). The small number of vehicles, Europeans, national government buildings, permanent housing (especially in the post-hurricane reconstruction) electricity users and a large airport gave Funafuti other urban characteristics but in many visual respects it is not totally dissimilar to outer islands. The census data indicates that the Funafuti population almost tripled in size between 1973 and 1979, and casual evidence suggests that this rate of growth may have been continued in subsequent years, giving Funafuti around a third of the resident population and giving Fongafale a residential density of about 1,500 per sq.km. The extent of migration to Funafuti and the high

population density on Fongafale has resulted in some problems. Firstly, it has begun to create an 'urban elite' of those who have wage jobs and are unwilling to return to their home islands and this elite may be self-perpetuating to the detriment of the development of those remaining on the outer islands (Tuvalu, 1980a:35). Secondly, it has resulted in the overcrowding of accommodation in Funafuti (and to a lesser extent in Vaitupu). This was the subject of a parliamentary debate in April 1981 over the extent to which housing should be provided for all government workers (who should not be appointed from an outer island unless housing was available) or should be paid a 'disturbance allowance'. The discussion was inconclusive. Thirdly, it has placed considerable pressure on the extremely limited area of agricultural land on Funafuti, to the extent that there has been both a great dependence on imported foods and the re-establishment of a small village on the island of Funafala of Funafuti people who find the population density and the difficulties involved in leading a traditional life-style on Fongafale unacceptable (Tuvalu, 1982a:3). There is also a shortage of housing thatch and firewood, and thus greater dependence on imported substitutes. Fourthly, migration from the outer islands has caused resentment between Funafutians and other Tuvaluans,

> 'Demands for restriction of entry to the capital were being expressed by women's committees and island councils in Tuvalu (the outer islands seeking to retain active young people; Funafuti seeking to retain its separate identity) in April and May 1976' (Howard, 1976:25).

Since then these issues and resentments have smouldered on but have not resulted in related policy formation.

In the context of housing policy the role of migration was important. After separation from the Gilbert Islands a home ownership scheme was implemented, but the growth of the public service on Funafuti and increasing pressure on available building land, made it impractical to continue to provide houses, especially since this also reduced flexibility in posting staff and increased the permanent population of Funafuti. However whilst housing policy has been designed to enable the posting of public servants outside Funafuti, the poor standard of housing on the outer islands (where public servants' housing is provided by Island Councils) has made it difficult to persuade civil servants to be posted away from Funafuti, hence in 1980 a programme of construction of permanent housing began on the outer islands (Tuvalu, 1980a:108-110). The extent to which this has been implemented or has affected population distribution is unknown.

Almost all information on migration and its impact in Tuvalu is derived from a period before the separation with Kiribati, and the significant return of workers from Tarawa and Banaba, and hence the new focus of migration constituted by Funafuti itself. Moreover not all of those who have returned from overseas have found formal sector employment and many are unemployed; thus not only are incomes in Funafuti lower in real terms than those earned overseas (especially because of the high cost of living in Funafuti) but tend to be distributed amongst urban kin rather than remitted to the outer islands. Moreover as urban jobs become careers the tendency to reduce rural commitments is likely to further reduce the level of remittances. Thus, in the present context of migration in Tuvalu, it is probable that remittances have been substantially reduced and the availability of cash on outer islands has thus also been reduced. It is probable then that the beneficial impact of migration noted by Chambers has given way to a situation of some social dislocation, especially as long-term migrants return from Banaba and Nauru, and as inequalities increase both

between Funafuti and elsewhere and between rural households, according to their access to cash incomes. Thus, as Chambers records,

> 'The present system of temporary, rotating employment off the island by a wide sector of the community has enabled Tuvalu to reap economic benefits from its export of labour with minimal social sacrifice. Off the island workers tend to retain a commitment to their home island...In developing any future employment opportunities Tuvalu would be wise to perpetuate the present pattern of temporary and rotating employment' (1975:103).

In general then the benefits to migration in Tuvalu appear to be currently falling, a trend which indicates the validity of Chambers' conclusion, and the possibility that the kinds of approaches to the rotation of employment, that are currently being implemented in Kiribati would be of potential value in Tuvalu also. But, even more important, policies directed towards rural development, that would minimise the perceived necessity to migrate, would be of greater value in contributing to long-term development.

Conclusion

For Tuvalu as a whole, the population density is now more than 300 persons per sq.km. which, excluding the exceptional case of Nauru, is the highest density in the South Pacific region and much higher than that of other atoll states such as Tokelau and the Marshall Islands and also much higher than the Gilbert Islands chain of Kiribati. Not only are natural resources in atoll environments extremely limited but they are no more diverse in Tuvalu than in the other atoll groups, hence the high population densities of Tuvalu are more critical than anywhere else in the region. In material terms the people of Tuvalu are some of the poorest in the South Pacific region; whilst the position of Tuvalu is extreme (because of its remoteness, uniformity and lack of diversity of production) it is not untypical of the current problems of other primary producers in the region, where poverty is increasing because of the crisis associated with stagnant production, falling (or stable) global commodity prices, a worsening balance of payments and an increasing production. Not only does Tuvalu experience this range of problems but they have all been accentuated in less than a decade by separation from Kiribati, the cost of establishing a new state infrastructure (inevitably top-heavy for a country of its size) and declining overseas wage labour opportunities. To some extent these problems are disguised and reduced by a situation whereby traditional Polynesian cultures are strongly maintained on isolated atolls, where pollution is virtually non-existent, emphasized by the isolation of those atolls from each other and from the global economy on which much of their development depends. In this kind of context self-reliance on outer islands is of continued signficance. Whilst secession has given Tuvalu a new identity especially as an independent nation, alongside a much more substantial participation in the global economy (especially through the receipt of overseas aid but also through the production of stamps), the tasks of achieving development in Tuvalu are immense and, in many respects, increasing.

The historic and contemporary limitations of the traditional economy have resulted in extensive emigration to overseas employment opportunities throughout the Twentieth Century but, unlike every other Polynesian society, this has not resulted in long-term settlement overseas (except in the

limited and exceptional case of Kioa). In the past labour migration has had a generally neutral impact on development in Tuvalu, both because it has had a strong circular basis and because it was open to all in the same way. Indeed there is a striking comparison with the small land-locked African nation of Lesotho where

> 'rural life...is a particularly unhappy compromise. The villager's aspirations are continually stirred by industrial enterprise over the border, but his opportunities are strictly limited to an unsuccessful subsistence economy at home. Every migration creates greater consumer wants and diminishes the chance of satisfying them at home - both because lands are 'neglected' and because the idea of Lesotho being self-sufficient becomes increasingly preposterous' (Wallman, 1977:111).

Whilst the subsistence economy of Tuvalu is more viable than that of Lesotho it is the outward orientation of social and economic life that characteristises the two contemporary economies. Circular migration continued to maintain an equilibrium as wants were satisfied overseas. But in the past decade the whole trajectory of migration has changed with the substantial return migration from Kiribati, and will change again in a decade with the closure of the Nauru phosphate mine; no longer is circular migration a viable proposition for all and, as Chambers notes (1975:103), it is increasingly likely that children, with higher education levels will be unable to follow, let alone exceed their fathers' employment records. This change has been accompanied by the growth of an urban centre at Funafuti, the growing permanency of migration (as jobs become careers), an increase in overt unemployment and growing inequalities between Funafuti and the outer islands. These trends have necessarily disturbed any complacency about the benign impact of contemporary migration and prompted pressures to both develop the economy of the outer islands whilst simultaneously seeking out new employment opportunities overseas.

The extremely limited development opportunities of the outer islands (possibilities which principally depend on increased copra production) are reflected in the equally limited migration to any of those islands (including Vaitupu) from elsewhere in Tuvalu and, so far, no attempts to generate a more equitable distribution of job opportunities in Funafuti. Chambers, in her review of development prospects in Tuvalu, a review which remains valuable, notes how there are extremely limited opportunities for outer island development (1975:158). Whilst it is essential that development policies strengthen the economic base of those islands and improve social services to give a greater degree of comparability with those on Funafuti, it is improbable that this will result in sustained economic growth there, even if accompanied by a very slow or non-existent population growth. Again there are comparisons with Lesotho, where indigenous resources are much less limited and external migration perhaps even more significant; it has been argued that

> 'non-development in Lesotho is a function of a complex of poverty, migration and ideology and can only be successfully treated when attention is paid to the whole syndrome. It is easy to prescribe negatively, economic development will not be assured by an injection of cash to cure the poverty, nor by a tourniquet to stop the flow of migrants, nor by an amphetamine to lift the pessimism, nor by any one specialist effort alone.

> More possibly - and therefore more diffidently - I would venture that the present emphasis on agricultural development for Lesotho will continue to be nugatory in so far as it exacerbates the unfavourable contrast with urban South Africa' (Wallman, 1972:260).

And yet, and to a much greater extent in Tuvalu, alternative development strategies are not readily apparent and the role of the land and agricultural development is unchanged,

> 'Because of population growth the pressure on land is increasing. Yet Tuvaluans today value their land no less than did their ancestors. Money is no substitute for land especially on the outer islands. There people say that money is for palagi [Europeans] and land for Tuvaluans. "Tou kafaga tenei e faitali atu" goes the saying, "Your climbing rope awaits you". That saying is particularly applied to people who have left their islands to work for the government or for commercial firms. Although they live the luxurious life of a palagi, when they retire they will return to their village, where coconut climbing is daily work' (Samuelu, 1983:39).

The contemporary lack of development in Tuvalu is a function of a number of factors, not only such phenomena as high population densities on land of limited potential, a lack of capital for development and remoteness from markets but also colonial influences, through which education was oriented to cash employment and comparative disadvantage and relative deprivation became increasingly apparent. Rural development in atoll economies, however successful, cannot turn back the tide of historical evolution.

The extremely limited economic opportunities in Tuvalu and the minimal prospects of future development, and hence significant employment creation, suggest that there would be widespread demand, at individual and national level, for potential emigration opportunities. Indeed this is apparent from the extent of labour migration to Nauru (and previously Banaba), the settlement of Kioa by Vaitupu islanders, the search for new maritime employment opportunities (and the specific training of seamen for migration) and the limited return migration from Fiji. In the years after independence Nanumangans contracted to buy land in Texas, possibly in the belief that this would enable them to migrate to the United States (Sapoago, 1983:180-181). As early as 1968 McCreary and Boardman were noting not only that Tuvaluans were relatively favourable to emigration but that New Zealand would be an appropriate destination, alongside other Polynesian populations; 'it would seem not unreasonable that New Zealand, if necessary by withdrawing some aid funds from South-East Asia, accept some responsibility for this comparatively small group of Polynesians' (McCreary and Boardman, 1968:13). It was not until almost a decade later that the short-lived New Zealand-Tuvalu work scheme (see above) resulted in official migration links being made. In terms of attitudes, the American presence in the war had significantly raised expectations, and by the mid-1960s approaches to copra production well reflected an understanding of the limitations of a principally peasant economy,

> 'The view is that there is very little point in working hard at copra cutting because the return is so small that it does not bring them any closer to the desired end. These young men feel that there is no hope of doing much in the island to improve

> their chances and see migration, especially to New Zealand, as the only hope' (McCreary and Boardman, 1968: 29-30).

Almost any available migration opportunities would rapidly be taken up by Tuvaluans. A recent survey of employment in Tuvalu, making identical conclusions to those made for Kiribati (Country Report No.7), suggests that emigration, despite its problems (e.g. the loss of an agricultural labour force, increased import dependency, high dependency ratios and the decline of cultural values), will increase in Tuvalu. However access to opportunities depends entirely on the international political situation. If no new emigration opportunities are found after the closure of the Nauru mine, Tuvalu will be in the unusual situation of being perhaps the poorest country in Polynesia and the only one without significant external migration. At the moment,

> 'government officials are unable to identify neither the skills that could be exported nor the countries willing to receive Tuvaluan workers....Others feel that countries that offer development aid would make a greater contribution to Tuvaluan welfare by permitting a quota of Tuvaluan workers to enter the country...it is felt that New Zealand and Australia should offer a quota of jobs for Tuvaluan workers' (Knowles, 1982:6).

Whether bilateral agreements along these lines can be negotiated must be considered doubtful at a time when most industrial countries are encouraging their 'guest workers' to return home. The experience of the New Zealand labour scheme demonstrates this conclusively. Comparing Tuvalu with the other Polynesian states of Niue (Country Report No.11), the Cook Islands (Country Report No.2) and Tokelau (Country Report No.17), where there is unrestricted migration to New Zealand (and high levels of aid), Walsh comments 'Tuvalu, having opted for independence, has no such options' (1981:190). Yet Tuvalu was never a colony of New Zealand and that option has never been available. There appears no real alternative to a negotiated emigration although a possible alliance with Western Samoa has apparently been considered (Oyowe, 1982:23). Consequently Tuvalu is relatively unusual in that one of the current Development Plan objectives is 'to develop employment opportunities both locally and overseas' (Tuvalu, 1980a:2). But, in fact, it is not only job opportunities overseas that are sought it is also considered that these may effectively become resettlement opportunities.

The possible outlets for Tuvaluan emigration are limited. Viewed from Tuvalu, the metropolitan countries offer the greatest opportunities for employment and migration and even the complete population of Tuvalu could easily be incorporated in any of the metropolitan fringe nations, Tuvalu lacks 'visibility' overseas and the economic and political climate in the metropolitan countries is opposed to new migration. It may be therefore that there are greater opportunities for emigration to those other Polynesian states in the South Pacific, such as Niue and the Cook Islands, that currently have a declining population. So far neither of those two latter countries have given much indication of welcoming migration from elsewhere in the South Pacific rather than being pre-occupied with retaining their own indigenous population. This is scarcely surprising; even extensive emigration does not result in empty islands or villages, but only smaller households and occasionally empty houses. Immigration, even from elsewhere in Polynesia, would be a cause of some social dislocation. The prospects of migration within the region are therefore poor. If there is an upturn in the global economy, despite current political realities, the

possibility of metropolitan migration is greater. In the meantime not only are Tuvalu and Kiribati the two countries in the South Pacific region where the social and economic justification for increased emigration (temporary or permanent) is readily apparent yet, outside Melanesia, they are also the two countries in the region where the opportunities are not only the least but are actually contracting. In those circumstances, whilst continuing to seek out overseas opportunities, Tuvalu has no alternative but to attempt to achieve a greater degree of self-reliance.

As one of the smallest independent countries in the world (in the South Pacific region only Nauru has a smaller land area) the few advantages that Tuvalu has in comparison with other countries in the region - a single language and culture, a strong sense of identity (despite a token effort at secession by a group of Nanumea islanders) - and a viable traditional economy on the outer islands - are offset by extremely limited resources. In his inaugural speech after Independence the Prime Minister, Toaripi Lauti, pointed out that 'all we have is sunshine, wind and a portion of the Pacific Ocean' and consequently that self-sufficiency was the key to survival as an independent nation. He added that 'after all we were independent and self-sufficient before becoming a colony'. But self-sufficiency is a declining theme for the nations of the Third World and, especially in Tuvalu, where hundreds of men work overseas (in a move that has almost become a part of the life cycle) and return with the income, artefacts, tastes and ideas of other cultures, remoteness may be less than enough to foster self-sufficiency. Indeed, as Flynn has argued, in an article surprisingly entitled 'Polynesian paradise islands are independent', it was only a rich culture that enabled the Tuvaluans to exist in a harsh environment (1978:194). Traditional pre-contact life presented its own problems that cannot now be diminished by appeals to the merits of self-sufficiency.

Self-reliance is slipping away from atoll communities as residents demand more imported goods, welfare support, commodity price subsidies, higher wages and so on; that is, they demand comparability with more distant places. Even in much larger countries attempts to achieve self-reliance often appear no more than reflections of the aspirations that must suffice if growth cannot easily be achieved. The problems involved in changing the whole trajectory of development are more than apparent. It is improbable that Tuvalu can ever achieve a significant degree of self-reliance (unless, like Nauru, it discovers new sources of mineral wealth), yet it is capable of moving away from the present massive dependence on aid. The elements of such a policy redirection are clear: agricultural development policies that stress diversification and food crop production (whilst simultaneously encouraging the extension of new coconut varieties and replanting schemes, to ensure some necessary cash income); increasing concentration on the exploitation and development of the marine resources that are the only obvious base of both export growth and improved nutrition; transport and energy policies that move away from the use of non-renewable resources (and may incorporate differential pricing); job decentralisation and allocation (perhaps along Kiribati lines); improved infrastructure (wharfs, aid posts, etc.); increased emphasis on family planning, and so on. Self-reliance then entails reducing dependence on imported 'necessities' including foods, oil products, capital equipment and also expertise; this involves changing consumption patterns as well as increasing local productive capacity. Policies would be needed to change living styles at given income levels - using taxes, price policies, advertising and perhaps rationing. In short, self-reliance entails a more selective approach to external influences of all kinds. In keeping with this orientation is the idea that factors that

were previously regarded as 'obstacles' to development, such as separate languages, traditional customs and so on, appear now rather as shields against the expense and inappropriateness of modern consumption styles and technologies (Seers, 1977).

Yet, as the problems of developing an appropriate education system demonstrate, the overall task is enormous. Tuvalu has a new and relatively well-developed community vocational training programme which involves courses on nutrition, child care, handicrafts, gardening and animal husbandry. However, as elsewhere, there is parental opposition to vocational education and demands for the expansion of academic secondary education to enable children to qualify and compete for the small proportion of jobs (perhaps 20%) that require secondary education. By 1980 70% of secondary school leavers could not find wage employment and by 1983 the government will no longer be able to place all university graduates (averaging about ten per year). Consequently there is a debate on the role of both secondary education (considering whether an excess of university graduates over the number of jobs will result in political and social problems) whilst the relationship between education levels achieved and jobs available is likely to continue to worsen (Knowles, 1982:7-8). A survey of the aspirations of Nanumeans indicated both that children hoped and expected to work off the island and that their parents assumed that they would be better suited to participate in off-island employment than they themselves, attitudes emphasized by a school system that stressed education for employment (Chambers, 1975:103). If Tuvaluans demand more academic education, alongside wage-employment and the material benefits of modern industrial-type development, as their expectations rise alongside those of other Pacific islanders, and this is the present trajectory of development, then political policies that advocate greater self-reliance are doomed to failure.

Tuvalu therefore presents in almost classic terms the problem of small nations. It has a small population, the majority of whom remain essentially within the subsistence food production sector. Its size, and extremely limited natural resources, severely constrain the range of policy options available to the country. The vast distances between the atolls, and between Tuvalu and other countries, result in extremely high internal and external transport costs and, without a shipping service of its own, Tuvalu has little opportunity to influence freight rates. Export incomes, apart from philatelic earnings, are dominated by the revenue from a single agricultural product, copra, which generates irregular earnings at prices set by metropolitan markets. And that income is very small, inadequate to provide capital for major development projects, a phenomenon which resulted, at one point in the investment of all Tuvalu's capital assets in the U.S.A. (cf. Connell, 1980a). The country is likely to remain therefore extremely dependent on aid and as the Prime Minister has recently noted 'I really don't see the time when the aid could stop' (T. Puapua, cited by Anon, 1982a:47). Tuvalu has gone from fragment of empire to extreme periphery of the global economy. By any standards therefore Tuvalu is in a situation of extreme dependence, mitigated only by a remoteness that has so far minimised some facets of Tuvaluan dependence, imposed a degree of self-reliance and an almost involuntary maintenance of identity. Whilst emigration will limit even this degree of self-reliance it appears the only real solution for a small group of superficially idyllic islands that otherwise face a bleak future.

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